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CARBON STEEL ALLOYS, CONTINUED ON THE NEXT PAGE

1 = CRM, 2 = RM, 3 = RM with no uncertainties

Alloy	ISO	#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Ti	V	W
1005		1	DSZU C040A	0.013	0.012	0.0023	0.0029	0.060	0.007	0.005	0.007	(0.002)	(0.001)	0.0068	0.0010	(0.001)	(0.002)
1005		1	ECRM 064-2D	0.0026	0.1641	.	.	0.0065	0.0077	0.0115	.	0.0027	0.00077	0.0026	.	0.00015	.
1005		1	SS 111/1	0.0070	0.1623	0.0045	0.0049	0.0039	0.0089	0.0161	0.0055	0.0053	0.0005	0.0025	0.0004	0.0002	.
1006		1	IRSID 1670	0.0011	0.3981	0.0128	0.0075	0.0046	0.0134	0.0142	0.0174	0.0018	0.0009	0.0016	0.0078	(0.0005)	.
1008	17034	1	BS XCAS	0.024	0.471	0.008	0.0064	0.339	0.020	0.031	0.035	0.0086	0.0069	0.0055	0.0010	0.020	(0.006)
1008		1	ECRM 057-2D	0.0507	0.246	0.0120	0.0127	.	0.0146	0.0096	0.0114	.	.	0.0023	.	.	.
1009	17034	1	BS 1009	0.008	0.212	0.0118	0.0086	0.048	0.011	0.0129	0.028	0.0020	(0.003)	0.0043	0.0007	(0.0006)	(0.001)
1009	17034	1	BS XCOS-2	0.021	0.58	0.0055	0.0059	0.40	0.047	0.099	0.039	0.016	0.013	0.0139	0.011	0.018	0.020
1010		1	IMZ 111	0.106	0.31	0.010	0.039	0.55	0.036	0.23	0.072	.	0.084	0.0133	.	0.022	.
1010		1	IMZ 71A	0.126	0.493	0.0126	0.0075	0.494	0.90	0.036	0.505	0.025	0.018	0.0065	0.0041	0.055	0.023
1011		1	IMZ 73	0.097	0.68	0.019	0.013	0.12	0.17	0.13	0.079	.	0.013	.	(0.002)	0.022	.
1016	17034	1	BS 1016	0.172	0.77	0.011	0.030	0.193	0.153	0.107	0.091	0.0193	0.040	0.0113	0.0010	0.0011	(0.0013)
1016 *	Provisional	1	BS 1016A *	0.17	0.73	0.012	0.012	0.21	0.054	0.041	0.11	0.005	0.037	0.006	0.001	0.003	0.001
1016 *	Provisional	1	BS 1016B *	0.17	0.73	0.012	0.014	0.22	0.053	0.040	0.11	0.005	0.037	0.006	0.001	0.003	0.001
1017		1	IMZ 112B	0.195	0.43	0.022	0.016	0.27	0.055	0.046	0.034	.	0.043	0.0100	0.010	0.045	.
1017		1	IRSID 1664	0.2008	0.472	0.0106	0.0259	0.0616	0.0820	0.0547	0.0707	(0.0084)	0.0157	0.0072	0.0013	(0.0005)	<0.002
1018		1	12X 10180C	0.171	0.803	0.0150	0.0200	0.147	0.0500	0.0284	0.0793	.	0.0047	0.0052	.	.	.
1018		1	12X 10180D	0.179	0.807	0.014	0.025	0.286	0.066	0.053	0.0251	0.007	0.0026	0.007	.	.	.
1018		1	ECRM 087-1D	0.174	0.671	0.010	0.046	0.263	0.171	0.118	0.078	0.015	0.021	.	.	.	.
1018		1	IARM 28K	0.174	0.80	0.012	0.027	0.291	0.171	0.0638	0.107	0.0060	0.0210	(0.008)	(0.0015)	(0.0014)	.
1018	17034	1	BS 1018	0.195	0.79	0.012	0.024	0.237	0.130	0.104	0.177	0.0058	0.044	0.0079	0.0009	0.0009	0.0014
1018	17034	1	BS 1018A	0.192	0.73	0.0078	0.020	0.197	0.134	0.092	0.094	0.0062	0.035	0.0061	0.0006	0.0019	(0.0004)
1020		1	IARM Fe1020-18	0.226	0.547	0.006	0.024	0.235	0.198	0.078	0.125	0.0065	0.0252	0.0098	.	0.036	.
1020	17025, 34	1	BS 1020	0.210	0.568	0.0058	0.0249	0.250	0.184	0.059	0.109	0.0070	0.018	0.0109	(0.00005)	0.0363	(0.0004)
1020 *	Provisional	1	BS 1020A *	0.22	0.58	0.014	0.023	0.23	0.16	0.060	0.12	0.006	0.018	0.010	0.002	0.035	0.005
1020 *	Provisional	1	BS 1020B *	0.22	0.59	0.014	0.023	0.23	0.16	0.060	0.12	0.006	0.018	0.010	0.002	0.035	0.005
1020		2	BS 57F	0.196	0.554	0.009	0.027	0.202	0.197	0.070	0.120	0.007	0.018	0.0077	.	0.063	.
1023		1	IMZ 112A	0.212	0.471	0.0055	0.0188	0.257	0.068	0.055	0.099	0.080	0.054	0.0058	0.0138	0.043	0.072
1026	17034	1	BS 1026A	0.270	0.76	0.0064	0.021	0.180	0.094	0.081	0.123	(0.005)	0.053	0.0100	(0.0006)	0.0257	0.0009
1026		1	IARM 359A	0.267	0.686	0.0094	0.020	0.233	0.186	0.068	0.121	0.0069	0.023	0.0094	0.0009	0.027	(0.001)
1030	17034	1	BS 1030A	0.34	0.763	0.0059	0.016	0.28	0.189	0.141	0.112	0.0061	0.029	0.0082	0.0014	0.0261	(0.0011)
1030		1	IARM 209D	0.322	0.68	0.0084	0.021	0.268	0.243	0.079	0.137	0.007	0.037	0.0107	0.0011	0.042	(0.002)
1030	17025, 34	1	BS 1030	0.331	0.682	0.0101	0.0299	0.261	0.269	0.078	0.124	0.0069	0.0182	0.0107	0.0005	0.031	0.0012
1033		1	IRSID 1663	0.353	0.967	0.0090	0.034	0.235	0.180	0.148	0.206	.	0.042	.	0.051	.	.
1035	17034	1	BS 1035	0.362	0.758	0.0100	0.028	0.246	0.241	0.123	0.151	0.0073	0.049	0.0105	0.0007	0.026	0.0020
Alloy	ISO	#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Ti	V	W
1035	LAST	2	BS 4931	0.352	0.80	0.011	0.016	0.27	0.217	0.070	0.093	0.006	0.024	0.0080	.	0.058	.
1035		1	IARM 360A	0.331	0.733	0.008	0.023	0.260	0.235	0.078	0.113	0.0067	0.024	0.0102	0.0010	0.039	(0.001)
1039		1	IRSID 1637	0.401	0.940	0.030	0.030	0.378	0.097	0.068	(0.033)	.	(0.006)	.	.	(0.002)	.
1040	17034	1	BS 1040	0.402	0.79	0.010	0.032	0.229	0.241	0.067	0.123	0.0069	0.021	0.0111	0.0009	0.030	(0.0017)
1040		1	IARM 210D	0.412	0.73	0.0052	0.030	0.230	0.273	0.122	0.096	0.007	0.034	0.011	0.0104	0.024	(0.002)
1040		1	IRSID 1657	0.445	0.724	0.028	(0.013)	0.274	.	0.048	(0.022)	.	(0.008)	.	.	(0.001)	.
1042		1	IRSID 1656	0.477	0.730	0.027	0.013	0.277	.	(0.048)	(0.017)	.	(0.007)	.	IRSID	(0.002)	.
1042		1	NM EN-8	0.42	0.82	0.02	0.02	0.21	.	.	.	.	.	.	.	.	.
1043		1	IRSID 1652	0.406	0.931	(0.017)	0.040	0.386	0.345	0.190	0.184	.	(0.042)	.	.	.	.
1045	17034	1	BS 1045	0.458	0.796	0.0069	0.023	0.215	0.190	0.060	0.108	0.0056	0.0170	0.0113	0.0011	(0.002)	(0.0007)
1045		2	BS 56E	0.483	0.72	0.010	0.025	0.24	0.015	0.015	0.021	0.005	0.005	0.0056	(0.001)	(0.002)	.
1045		1	IARM 200D	0.453	0.749	0.0103	0.024	0.225	0.232	0.097	0.109	0.007	0.0217	(0.009)	(0.0013)	0.0244	(0.003)
1045		1	IPT 503	0.456	0.682	0.027	0.027	0.218	0.129	0.063	0.160	0.006	0.020	0.0082	0.0011	.	.
1050		1	IARM Fe1050-18	0.499	0.79	0.0045	0.027	0.223	0.179	0.068	0.100	0.0056	0.018	0.0097	0.0008	0.0270	.
1060		1	IARM 373A	0.63	0.70	0.0123	0.031	0.22	0.107	0.048	0.096	0.005	0.0176	0.0088	0.0017	0.023	(0.002)
1069		1	ECRM 059-2D	0.721	0.495	0.0046	0.0084	0.188	0.0074	0.0198	0.0090	.	0.0018	0.0051	.	.	.
1078		1	ECRM 056-2D	0.8181	0.5073	0.0103	0.0093	0.2006	0.0129	0.0218	0.0146	.	.	.	.	.	.
1078		1	SRM 1224	0.75	0.41	0.009	0.039	0.173	0.072	0.054	0.071	.	0.013	.	.	0.002	.
1080	17034	1	BS 54J	0.78	0.77	0.0090	0.0108	0.552	0.080	0.037	0.177	0.0042	0.0138	0.0060	0.0020	0.0014	0.0024
1090		1	SS 602/2	0.94	0.66	0.023	0.031	0.057	(0.06)	(0.02)	(0.03)	(0.007)	(0.004)	.	.	(0.001)	.
1095		1	SRM 1227	0.97	0.402	0.014	0.026	0.215	0.006	0.007	0.019	0.003	0.003	.	.	0.002	.
1215		1	IARM Fe1215-18	0.043	0.96	0.059	0.29	(0.006)	0.164	0.055	0.051	0.0055	0.016	0.0109	0.0007	0.0020	.
1541		1	IARM 349A	0.41	1.49	0.011	0.025	0.192	0.300	0.178	0.189	0.0085	0.059	0.0100	0.0013	0.027	0.004
1541		1	IRSID 1648	0.432	1.41	0.031	(0.070)	0.242	0.408	0.165	0.170	.	(0.028)	.	.	.	.
1544		1	IRSID 1644	0.394	0.594	0.021	0.031	0.287	0.265	0.158	0.138	.	.	.	.	.	.
A-106B		1	SRM 1228	0.072	0.365	0.004	0.018	0.007	0.012	0.018	0.016	.	0.009	.	.	<0.001	.
A-36	17034	1	BS 1016	0.172	0.77	0.011	0.030	0.193	0.153	0.107	0.091	0.0193	0.040	0.0113	0.0010	0.0011	(0.0013)
A-36	17034	1	BS 1018	0.195	0.79	0.012	0.024	0.237	0.130	0.104	0.177	0.0058	0.044	0.0079	0.0009	0.0009	0.0014
A-36	17025, 34	1	BS 1020	0.210	0.568	0.0058	0.0249	0.250	0.184	0.059	0.109	0.0070	0.018	0.0109	(0.0005)	0.0363	(0.0004)
A-36		1	IARM 213C	0.201	0.922	0.007	0.025	0.25	0.149	0.068	0.099	0.0074	0.022	0.0116	0.0010	0.035	(0.002)
A-36		1	IARM 213D	0.158	0.725	0.0120	0.031	0.226	0.207	0.076	0.093	0.009	0.0131	(0.008)	0.0011	0.0010	(0.003)
LF-2		2	BS 2971	0.187	1.01	0.015	0.024	0.237	0.065	0.111	0.152	.	0.040	0.0084	.	(0.002)	.
LF-2		2	BS 57F	0.196	0.554	0.009	0.027	0.202	0.197	0.070	0.120	0.007	0.018	0.0077	.	0.063	.
LF-2	17025, 17034	1	BS LF2C	0.21	1.02	0.012	0.0182	0.263	0.153	0.099	0.152	0.0100	0.029	0.0096	0.0019	0.0014	0.0023
XC45		1	SS 459/2	0.467	0.909	0.0482	0.0481	0.640	.	.	.	0.0890	.	.	.	0.0585	.
Alloy	ISO	#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Ti	V	W

CARBON STEEL ALLOYS, CONTINUED FROM THE PREVIOUS PAGE

Number	Al	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Sn	Zr	Units
DSZU C040A	0.039	(0.0002)	0.00032	0.0021	.	.	(0.0003)	.	.	.	(0.0002)	.	Disc 40 mm Ø x 25 mm
ECRM 064-2D	.	0.0036	.	.	.	.	0.0146	.	0.00018	.	0.00051	.	Disc 38 mm Ø x 25 or 30 mm
SS 111/1	.	0.0011	.	.	.	.	.	.	.	.	0.0006	.	Disc 44 mm Ø x 19 mm
IRSID 1670	0.0479	0.0018	0.0007	(0.0002)	.	.	(0.0003)	.	.	.	0.0017	.	Disc 37 mm Ø x 30 mm
BS XCAS	(0.027)	0.0016	(0.0002)	<0.005	99.0	(0.0002)	(0.0015)	0.008	(0.0007)	0.0006	0.0017	(0.0009)	Disc 38 mm Ø x 30 mm
ECRM 057-2D	0.059	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 25 or 30 mm
BS 1009	0.026	0.0011	(0.0002)	0.0033	99.6	(0.0003)	(0.0008)	0.0060	(0.0004)	(0.0009)	0.0007	(0.0006)	Disc 38 mm Ø x ~7 or 19+ mm
BS XCCS-2	0.073	(0.004)	0.021	0.0032	98.6	0.0003	(0.003)	0.0066	(0.0004)	(0.0016)	(0.0015)	(0.0015)	Disc ~37 mm D x ~30 mm
IMZ 111	0.017	.	.	0.0003	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm
IMZ 71A	0.019	0.016	0.0009	.	.	.	0.0100	.	.	0.013	0.015	0.0065	Disc 35 mm Ø x 20 mm
IMZ 73	0.010	.	.	.	.	.	(0.01)	.	.	.	.	(0.0025)	Disc 40 mm Ø x 40 mm
BS 1016	0.0200	0.0066	(0.0003)	(0.0004)	98.4	(0.0007)	(0.0009)	(0.003)	(0.004)	.	0.013	(0.001)	Hexagon ~60 mm Ø x 19+ mm
BS 1016A *	0.020	0.003	<0.005	0.0008	[98.6]	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	0.0006	Disc 38 mm Ø x ~7 or 19+ mm
BS 1016B *	0.021	<0.005	0.0002	0.0008	[98.6]	<0.005	<0.005	<0.005	<0.005	<0.005	0.004	0.0008	Disc 38 mm Ø x ~7 or 19+ mm
IMZ 112B	(0.03)	.	.	.	.	.	0.013	.	.	.	0.15	.	Disc 40 mm Ø x 40 mm
IRSID 1664	.	0.0115	(0.0002)	(0.0005)	.	(0.00008)	(0.0002)	.	0.0002	0.0012	0.0108	(0.0001)	Disc 37 mm Ø x 30 mm
12X 10180C	0.0198	0.0029	.	.	.	.	.	.	.	.	0.0024	.	Disc ~40 mm Ø x ~15 mm
12X 10180D	(0.003)	0.0068	.	.	.	.	.	.	.	.	0.0033	.	Disc ~40 mm Ø x ~15 mm
ECRM 087-1D	.	0.024	.	.	.	.	.	.	.	0.0046	0.017	.	Disc 38 mm Ø x 25 or 30 mm
IARM 28K	(0.0025)	(0.005)	0.0005	.	.	.	0.0017	(0.005)	.	.	0.0075	.	Disc 31 mm Ø x 2 mm
BS 1018	0.029	0.0041	(0.0002)	(0.0004)	98.2	(0.0003)	(0.0006)	0.0014	(0.0006)	(0.001)	0.0099	(0.001)	Disc 38 mm Ø x ~7 or 19+ mm
BS 1018A	0.0199	0.0040	0.0003	0.0008	98.5	0.0002	0.0012	(0.0015)	0.0005	0.0012	0.0075	0.0011	Disc 38 mm Ø x ~7 or 19+ mm
IARM Fe1020-18	(0.003)	0.0044	.	(0.002)	98.5	.	(0.0012)	(0.007)	.	0.0018	0.0080	.	Disc 31 mm Ø x 2 or 18 mm
BS 1020	0.0006	0.0074	(0.0001)	0.0022	[98.5]	(0.0001)	(0.0003)	0.0046	(0.0002)	(0.0018)	0.0090	(0.0005)	Disc 44 mm Ø x ~7 or 19+ mm
BS 1020A *	0.002	<0.05	0.0002	0.001	[98.5]	<0.005	<0.005	<0.05	<0.005	<0.005	0.017	<0.005	Disc 38 mm Ø x ~7 or 19+ mm
BS 1020B *	0.002	<0.05	0.0002	0.001	[98.5]	<0.005	<0.005	<0.05	<0.005	<0.005	0.017	<0.005	Disc 38 mm Ø x ~7 or 19+ mm
BS 57F	(0.002)	(0.006)	.	(0.0003)	.	.	(0.006)	.	.	.	0.008	.	Disc 44 mm Ø x ~7 mm LAST
IMZ 112A	0.017	0.023	0.0010	.	.	.	0.0123	.	0.008	0.021	0.162	.	Disc 38 mm Ø x 20 mm
BS 1026A	0.0091	(0.005)	(0.0003)	0.0025	98.3	<0.001	0.0008	0.0042	<0.005	0.0013	0.0068	0.0011	Disc 38 mm Ø x ~7 or 19+ mm
IARM 359A	0.002	0.0073	0.0003	0.0013	.	.	0.002	0.0044	(0.001)	(0.002)	0.0100	(0.001)	Disc 31 mm Ø x 2 or 18 mm
BS 1030A	0.0021	(0.005)	(0.0003)	(0.002)	98.0	(0.0003)	(0.0007)	0.0047	0.0002	0.0014	(0.015)	(0.0003)	Disc 38 mm Ø x ~7 or 19+ mm
IARM 209D	(0.003)	0.0060	0.0002	0.002	.	.	0.0014	0.005	0.001	0.004	0.012	.	Disc 31 mm Ø x 2 or 18 mm
BS 1030	0.0014	0.0055	0.0003	0.0012	(98.1)	(0.0002)	(0.0004)	0.005	0.0005	0.0024	0.0114	(0.0002)	Disc 38 mm Ø x ~7 mm LAST
IRSID 1663	0.037	0.028	.	.	.	.	.	.	.	.	0.0143	.	Disc 44 mm Ø x 30 mm
BS 1035	0.0008	0.0051	(0.0002)	0.0017	97.9	(0.0003)	(0.001)	0.0036	(0.001)	(0.002)	0.0027	(0.0009)	Disc 40 mm Ø x ~7 or 19+ mm
Number	Al	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Sn	Zr	Units
BS 4931	(0.001)	0.005	.	.	.	.	.	0.0034	.	.	0.009	.	Disc 37 mm Ø x ~7 mm
IARM 360A	0.0016	0.0060	0.0004	0.0017	.	.	0.0015	0.004	(0.001)	0.0023	0.010	(0.001)	Disc 31 mm Ø x 2 or 18 mm
IRSID 1637	0.022	0.042	.	.	.	.	.	.	.	.	.	.	Disc 45 mm Ø x 30 mm
BS 1040	(0.0019)	(0.006)	0.0003	0.0011	98.0	<0.05	(0.0012)	0.0023	(0.0005)	0.0022	0.009	0.0018	Disc 28 mm Ø x ~7 or 19+ mm
IARM 210D	(0.002)	0.0059	0.0004	0.0009	.	.	0.001	0.0034	0.001	0.002	0.010	(0.001)	Disc 31 mm Ø x 2 or 18 mm
IRSID 1657	0.004	0.0051	.	.	.	.	.	.	.	.	.	.	Disc 42 mm Ø x 30 mm
IRSID 1656	(0.002)	0.055	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 35 mm
NM EN-8	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 20 mm
IRSID 1652	.	0.038	.	.	.	.	.	.	.	.	0.030	.	Disc 45 mm Ø x 30 mm
BS 1045	(0.001)	0.0050	(0.0003)	0.0013	98.1	(0.0002)	0.026	0.0040	(0.0005)	0.0017	0.0084	(0.0009)	Disc 38 mm Ø x ~7 or 19+ mm
BS 56E	0.062	0.0035	.	(<0.0005)	.	.	(<0.002)	.	(0.0001)	0.0004	(0.0006)	.	Disc 44 mm Ø X ~13 to ~18 mm
IARM 200D	(0.004)	0.0050	.	.	.	.	0.0010	.	.	0.0079	.	.	Disc 31 mm Ø X 2 or 18 mm
IPT 503	0.018	.	.	.	.	.	.	.	0.008	.	.	.	Disc 35 mm Ø x 20 mm
IARM Fe1050-18	(0.003)	(0.0030)	(0.0005)	.	98.0	.	(0.0013)	0.0026	.	0.0015	0.0103	.	Disc 31 mm Ø x 2 or 18 mm
IARM 373A	0.002	0.0046	0.0003	0.0005	.	.	0.001	0.002	(0.001)	(0.002)	0.0069	(0.003)	Disc 31 mm Ø x 2 mm
ECRM 059-2D	0.00045	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 25 or 30 mm
ECRM 056-2D	.	.	.	.	.	.	.	.	.	.	.	.	Disc 44 mm Ø x 25 or 30 mm
SRM 1224	0.060	.	.	.	.	.	.	.	.	.	.	.	Disc 32 mm Ø x 19 mm
BS 54J	0.0021	0.0025	<0.0005	<0.01	97.6	(0.0002)	(0.002)	(0.0011)	.	(0.0006)	(0.005)	(0.0021)	Disc 38 mm Ø x ~7 or 19+ mm
SS 602/2	0.096	.	.	.	.	.	.	.	.	.	.	(<0.005)	Disc 44 mm Ø X 19 mm
SRM 1227	.	.	.	.	.	.	.	.	.	.	.	.	Disc 32 mm Ø x 19 mm
IARM Fe1215-18	.	0.0043	.	.	.	.	0.0012	.	.	0.0018	0.0083	.	Disc ~38 mm Ø x ~3 or ~19 mm
IARM 349A	0.0020	0.005	0.0003	0.0015	.	(0.0004)	0.0012	0.003	(0.001)	(0.003)	0.015	(0.002)	Disc 31 mm Ø x 2 or 18 mm
IRSID 1648	(0.004)	(0.038)	.	.	.	.	.	.	.	.	0.033	.	Disc 40 mm Ø x 28 mm
IRSID 1644	(0.017)	.	.	.	.	.	.	.	.	.	.	.	Disc 45 mm Ø x 30 mm
SRM 1228	0.061	.	.	.	.	.	.	.	.	.	.	.	Disc 32 mm Ø x 19 mm
BS 1016	0.0200	0.0066	(0.0003)	(0.0004)	98.4	(0.0007)	(0.0009)	(0.003)	(0.004)	.	0.013	(0.001)	Hexagon ~60 mm Ø x 19+ mm
BS 1018	0.029	0.0041	(0.0002)	(0.0004)	98.2	(0.0003)	(0.0006)	0.0014	(0.0006)	(0.001)	0.0099	(0.001)	Disc 38 mm Ø x ~7 or 19+ mm
BS 1020	0.0006	0.0074	(0.0001)	0.0022	[98.5]	(0.0001)	(0.0003)	0.0046	(0.0002)	(0.0018)	0.0090	(0.0005)	Disc 44 mm Ø x ~7 or 19+ mm
IARM 213C	0.0019	0.0058	0.0003	0.0014	.	.	0.0011	0.0042	0.0011	0.002	0.0081	(0.0004)	Disc 38 mm Ø x 2 mm
IARM 213D	(0.003)	(0.006)	(0.0004)	.	.	.	(0.0012)	(0.01)	.	(0.0032)	0.0147	(0.0015)	Disc 31 mm Ø x 2 or 18 mm
BS 2971	0.022	0.003	.	.	.	.	.	.	.	.	(0.005)	.	Disc 44 mm Ø X ~13 mm
BS 57F	(0.002)	(0.006)	.	(0.0003)	.	.	.	(0.006)	.	.	0.008	.	Disc 44 mm Ø X ~7 mm LAST
BS LF2C	0.029	0.0042	0.0002	0.0002	98.0	(0.0003)	0.0009	0.0018	0.0004	<0.05	0.011	0.0008	Disc 44 mm Ø x ~7 or 19 mm
SS 459/2	0.015	.	0.0110	.	.	.	0.0102	.	0.0044	0.0121	.	(0.074)	Disc 38 mm Ø x 19 mm
Number	Al	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Sn	Zr	Units

LEADED STEEL ALLOYS

Alloy	ISO	#	Number	Pb	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N
11L17	17025, 34	2	BS 75F	0.202	0.165	1.05	0.009	0.116	0.004	0.030	0.044	0.080	0.002	.	0.018	.
11L17	17025, 34	1	BS 75G	0.247	0.161	1.08	0.0085	0.114	0.011	0.0300	0.045	0.079	0.0016	0.0031	0.0174	0.0030
12L14		2	BS 74B	0.34	0.08	0.91	0.087	0.316	0.002	0.006	0.012	0.019	(0.002)	.	0.008	.
12L14	17025, 34	1	BS 74C	0.328	0.077	0.94	0.082	0.294	(0.002)	0.005	0.011	0.019	(<0.002)	.	0.008	0.0040
12L14	17034	1	BS 74D	0.282	0.072	1.00	0.073	0.28	(0.007)	0.0057	0.0115	0.0185	(0.008)	0.0043	0.0063	0.0040
41L40	17025, 34	2	BS 70B	0.135	0.40	0.90	0.009	0.022	0.27	0.13	0.25	1.00	0.024	.	0.205	.
41L40 MOD	17034	1	BS 70C	0.133	0.387	0.90	(0.009)	0.020	0.27	0.123	0.247	0.99	0.019	0.0086	0.202	0.0079
41L50	17025, 34	2	BS 72B	0.174	0.497	0.87	0.029	0.029	0.26	0.21	0.169	0.985	0.020	0.012	0.187	0.0081
86L20	25, LAST	2	BS 73B	0.139	0.200	0.83	0.009	0.030	0.250	0.141	0.416	0.512	0.022	0.008	0.170	0.0113
86L20	17034	1	BS 73C	0.21	0.206	0.86	0.0111	0.031	0.280	0.025	0.56	0.574	0.028	0.0028	0.180	0.0040
86L20	17025, 17034	1	BS 73D	0.18	0.202	0.834	0.018	0.027	0.287	0.240	0.420	0.47	0.015	0.0123	0.162	0.0101
86L20		1	IARM Fe86L20-18	0.20	0.175	0.794	0.009	0.015	0.29	0.242	0.458	0.53	0.025	0.0085	0.203	0.0052

Number	As	B	Ca	Fe	Mg	Nb	O	Sb	Sn	Ti	V	W	Zr	Units		
BS 75F	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x ~7	or 19+	mm
BS 75G	0.0028	(0.0002)	(0.0002)	[98.2]	.	(0.0003)	0.0155	.	0.0014	(0.0004)	0.0005	0.0004	.	Disc 41 mm Ø x ~7	or 19+	mm
BS 74B	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 41 mm Ø x ~7	or 19+	mm
BS 74C	0.004	.	.	.	.	(<0.005)	.	.	(<0.002)	.	0.0016	.	.	Disc 41 mm Ø x ~7	or 19+	mm
BS 74D	0.0047	0.0009	<0.001	98.2	(0.0003)	(0.0018)	(0.028)	<0.05	(0.0010)	(0.0007)	0.0012	<0.005	(0.0009)	Disc 41 mm Ø x ~7	or 19+	mm
BS 70B	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 41 mm Ø x ~7	or 19+	mm
BS 70C	0.007	(0.0003)	.	96.7	<0.005	<0.005	0.0020	(0.003)	0.008	0.0020	0.0026	(0.0006)	<0.005	Disc 41 mm Ø x ~7	or 19+	mm
BS 72B	(0.006)	.	.	.	.	(0.001)	.	.	0.014	(0.002)	0.004	.	.	Disc 37 mm Ø x ~7	or 19+	mm
BS 73B	0.004	.	.	.	.	.	.	.	0.008	.	(<0.002)	.	.	Disc 41 mm Ø x ~12	or ~17	mm
BS 73C	0.0035	(0.0002)	(0.0005)	[97.0]	(0.0001)	(0.002)	0.0013	(0.002)	(0.002)	0.0024	0.0031	(0.006)	(0.0011)	Disc 38 mm Ø x ~7	or 19+	mm
BS 73D	0.0052	(0.0004)	0.0004	97.1	<0.005	(0.0014)	0.0022	(0.0021)	0.021	0.0012	0.0028	0.0107	<0.05	Disc 38 mm Ø x ~7	or 19+	mm
IARM Fe86L20-18	.	.	.	.	.	.	.	.	0.014	.	0.0016	.	.	Disc 38 mm Ø x ~2	or 19	mm

RESULFURIZED STEEL ALLOYS

Alloy	ISO	#	Number	S	C	Mn	P	Si	Cu	Ni	Cr	Al	Co	Mo	N	Ti	V	W
1117	25	1	BS 3993	0.094	0.152	1.16	0.012	0.260	0.111	0.045	0.072	0.002	0.006	0.010	0.0071	(0.0008)	0.002	.
1117		2	BS 65C	0.115	0.150	1.19	0.007	0.24	0.24	0.063	0.066	(0.002)	(0.007)	0.012	0.0084	.	0.002	.
1117		1	IARM 29E	0.121	0.193	1.19	0.0157	0.239	0.253	0.082	0.105	0.0032	0.008	0.0269	0.0093	0.0014	0.0255	.
1118		1	IARM 307A	0.096	0.163	1.44	0.0113	0.281	0.190	0.197	0.104	0.032	(0.010)	0.045	0.0108	0.0015	(0.0028)	(0.005)
1118		1	IARM 307B	0.094	0.162	1.45	(0.012)	(0.30)	0.191	0.195	0.105	0.034	0.0101	0.045	(0.011)	(0.003)	(0.003)	.
1141		2	BS 66B	0.112	0.418	1.56	0.018	0.017	0.028	0.032	0.093	(0.001)	0.005	0.019	0.0056	(0.001)	0.0014	.
1141	* Provisional	1	BS 1141 *	0.11	0.40	1.50	0.014	0.24	0.12	0.051	0.099	0.004	0.007	0.018	<0.05	0.002	0.002	0.002
1141		1	IARM 348A	0.102	0.384	1.46	0.0121	0.270	0.230	0.081	0.123	(0.002)	(0.010)	0.026	(0.010)	0.0015	0.0029	(0.009)
1144	17025, 34	1	BS 1144A	0.271	0.468	1.43	0.0108	0.214	0.147	0.063	0.076	0.0020	0.0064	0.0154	0.0095	(0.0008)	0.0015	(0.0009)
1144		1	IARM 199C	0.281	0.469	1.55	0.0155	0.21	0.193	0.085	0.190	0.0019	0.007	0.0293	0.0070	0.0016	(0.0037)	0.0023
1144		1	IARM Fe1144-22	0.323	0.406	1.34	0.0091	0.171	0.115	0.036	0.061	.	0.0061	0.0112	0.0081	0.0007	0.0023	0.0017
1215		2	BS 66K	0.322	0.051	0.86	0.062	(0.004)	0.013	0.012	0.006	0.002	0.005	0.003	(0.0074)	<0.002	0.001	.
1215	17025, 34	1	BS 66L	0.315	0.065	0.844	0.061	0.002	0.007	0.015	0.026	0.0008	0.0035	0.0012	0.0031	(<0.0010)	0.0006	(<0.0010)
1429		1	ECRM 058-2D	0.1712	0.424	1.186	0.0098	0.1080	0.261	0.199	0.1211	.	0.0589	0.0107	.	.	.	.
4150 S	17034, last	1	BS 42	0.074	0.518	1.22	0.020	0.234	0.251	0.188	0.663	0.020	(0.011)	0.191	0.008	0.0017	0.0031	<0.005
A706-80		1	IARM 381A	0.043	0.272	1.16	0.013	0.269	0.379	0.185	0.129	0.0023	0.011	0.0341	(0.014)	(0.002)	0.0299	(0.003)

Number	As	B	Bi	Ca	Fe	Mg	Nb	O	Pb	Sb	Se	Sn	Ta	Zn	Zr	Units	
BS 3993	0.004	.	.	(0.0002)	.	.	.	(0.0030)	.	.	.	0.006	.	.	.	Disc 38 mm Ø x ~7	or 19+
BS 65C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 37 mm Ø x ~7	or 19+
IARM 29E	0.0085	0.0007	.	0.0012	.	(0.0003)	0.0024	(0.005)	(0.001)	(0.003)	(0.0006)	0.0109	(0.0004)	(0.004)	.	Disc 31 mm Ø x 2	or 18
IARM 307A	0.008	<0.005	<0.02	<0.0005	.	<0.006	(0.002)	(0.003)	(0.002)	<0.004	<0.006	0.0090	.	<0.002	(0.002)	Disc 31 mm Ø X 2	or 18
IARM 307B	.	.	.	.	.	.	(0.0013)	.	.	.	.	0.010	.	.	.	Disc 31 mm Ø X 2	or 18
BS 66B	.	0.0003	.	.	.	.	.	.	.	.	.	0.0016	.	.	.	Disc 41 mm Ø x ~7	or 19+
BS 1141 *	0.004	0.0004	.	<0.005	[97.4]	<0.005	0.004	<0.05	<0.005	<0.005	.	0.006	.	.	0.0007	Disc 41 mm Ø x ~7	or 19+
IARM 348A	(0.007)	(0.0013)	<0.02	0.0010	.	<0.006	0.027	(0.003)	(0.002)	(0.003)	<0.005	0.0112	<0.008	<0.003	(0.003)	Disc 31 mm Ø X 2	or 18
BS 1144A	0.0052	(0.0003)	.	(0.0005)	97.3	(0.0004)	(0.002)	0.0019	(0.0006)	(0.002)	.	0.0079	.	.	(0.0006)	Disc 38 mm Ø x ~7	or 19+
IARM 199C	0.0059	0.0012	(0.003)	(0.0011)	.	(0.0002)	0.0016	0.0037	(0.001)	(0.003)	.	0.0084	(0.0007)	(0.0006)	.	Disc 31 mm Ø x 2(ok)or 18(last)mm	
IARM Fe1144-22	0.0040	.	.	.	.	.	.	(0.002)	.	0.0017	.	0.0081	.	.	.	disc	
BS 66K	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 41 mm Ø x ~7	or 19+
BS 66L	0.0020	(<0.0003)	.	(<0.0010)	.	.	(0.0012)	.	0.0007	0.0021	.	(0.0010)	.	.	.	Disc 44 mm Ø X ~7	or 19+
ECRM 058-2D	0.0095	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 25	or 30
BS 42	(0.006)	<0.005	.	<0.005	96.6	<0.005	(0.0012)	(0.003)	<0.005	.	.	(0.011)	<0.05	.	.	Disc 44 mm Ø X ~7	to 19
IARM 381A	0.0055	.	.	.	.	.	0.0018	.	.	.	.	0.0137	.	.	.	Disc 31 mm Ø X 2	or 18

SILICON STEEL ALLOYS

Alloy	ISO	#	Number	Si	C	Mn	P	S	Cu	Ni	Cr	Al	Co	Mo	N	Ti	V	W
300M. 4340 MOD		2	BS 4340M	1.65	0.414	0.74	0.004	<0.001	0.134	1.78	0.78	0.076	0.013	0.35	0.0020	.	0.056	.
6418	17034	1	BS 6418	1.54	0.255	1.41	(0.010)	0.0041	0.109	1.74	0.34	0.029	0.010	0.42	0.007	0.0036	(0.003)	<0.05
6418		2	BS 69B	1.27	0.258	1.28	0.008	0.013	0.086	1.71	0.28	0.024	0.035	0.39	0.0057	(0.002)	(0.002)	.
Hy-Tuff		1	IARM 342A	1.63	0.257	1.37	0.006	0.0051	0.110	1.76	0.38	0.019	0.008	0.42	0.0102	0.0028	0.023	(0.005)

Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Sn	Ta	Zn	Zr	Unit	
BS 4340M	.	.	.	.	.	.	(0.001)	.	.	0.009	.	.	.	Disc 37 mm Ø x ~7	mm LAST
BS 6418	(0.004)	0.0004	0.0002	[94.1]	0.0004	0.0022	0.0011	<0.005	(0.003)	0.006	<0.05	.	<0.005	Disc 57 mm Ø x ~7	or 19+
BS 69B	.	.	.	.	.	.	.	.	.	0.006	.	.	.	Disc 38 mm Ø x ~7	or 19+
IARM 342A	(0.006)	0.0004	(0.0001)	.	(0.0002)	(0.002)	0.0006	0.0008	0.0021	0.021	.	(0.001)	(0.002)	Disc 31 mm Ø x 2	or 18

LOW ALLOY STEEL ALLOYS, CHART 2 of 3

1 = CRM, 2 = RM, 3 = RM with no uncertainties

Alloy	ISO	#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	Ti	V	W
5140H		1	IARM Fe5140H-18	0.37	0.93	0.014	0.022	0.187	0.253	0.266	0.67	0.13	0.0081	0.031	0.007	0.0015	(0.0024)	(0.003)
5160		1	IMZ 116	0.64	0.94	0.025	0.035	0.25	0.33	0.022	0.72	0.025	.	0.074	0.0130	(0.0008)	0.076	.
6150		2	BS 4941	0.490	0.79	0.012	0.017	0.27	0.106	0.074	0.96	0.024	0.008	0.039	0.0076	.	0.164	.
6150		1	IARM Fe6150-22	0.512	0.813	0.026	0.0024	0.303	0.135	0.098	0.912	0.027	0.0081	0.0170	0.0100	0.0014	0.161	0.007
8620		1	12X 86200-21	0.211	0.811	0.0128	0.0224	0.237	0.199	0.551	0.507	0.0241	0.0072	0.190	0.0082	.	0.0039	(0.003)
8620	LAST	2	BS 1931	0.194	0.84	0.007	0.018	0.235	0.116	0.42	0.50	0.021	0.012	0.168	0.0079	.	0.002	.
8620	17034	1	BS 8620G	0.215	0.799	0.0094	0.020	0.264	0.191	0.58	0.568	0.027	0.0077	0.205	0.0080	0.0011	0.0018	(0.0022)
8620		1	IARM Fe8620-18	0.211	0.857	0.012	0.026	0.23	0.197	0.446	0.536	0.0246	0.0085	0.197	0.007	0.0015	0.0061	(0.004)
8620		1	IPT 502	0.210	0.823	0.018	0.026	0.198	0.121	0.408	0.485	0.024	0.0083	0.155	0.0069	0.0016	.	.
8620 + Bi	LAST	2	BS 8620A	0.184	0.80	0.008	0.079	0.21	0.15	0.44	0.48	0.016	0.010	0.16	0.0107	(0.002)	0.004	.
8630	17034	1	BS 8630	0.315	0.752	0.0032	0.0043	0.261	0.046	0.544	0.477	0.023	0.0029	0.194	0.0038	0.0008	0.0006	(0.001)
8740	17034	1	BS 8740	0.39	0.86	0.011	0.023	0.25	0.16	0.55	0.49	0.037	0.0086	0.27	0.0073	0.0012	0.0024	<0.0023
8740		1	IARM 252C	0.416	0.92	0.025	0.008	0.248	0.109	0.505	0.501	0.017	0.008	0.205	0.0083	0.001	0.005	<0.005
8740		1	IARM 252D	0.423	0.842	0.0075	0.0128	0.256	0.270	0.424	0.468	0.024	0.0078	0.204	0.0068	0.0012	0.0022	(0.004)
8740		1	IARM 252E	0.413	0.87	(0.009)	(0.012)	0.257	0.164	0.407	0.486	0.028	0.0093	0.204	0.0064	0.0010	(0.0028)	.
8740		1	IARM 252F	0.406	0.88	0.011	0.009	0.247	0.182	0.412	0.463	0.026	0.0086	0.210	0.0059	0.0010	(0.003)	(0.003)
8822	17034	1	BS 8822A	0.212	0.852	0.020	0.031	0.287	0.030	0.569	0.562	(0.010)	0.0042	0.378	0.0086	0.0015	0.0028	<0.005
9310	LAST	2	BS 58C	0.098	0.57	0.011	0.014	0.29	0.14	3.20	1.29	(0.055)	.	0.11	.	.	.	.
9310	LAST	2	BS 58D	0.127	0.45	0.010	0.005	0.32	0.156	3.02	1.35	0.042	0.009	0.14	0.0147	.	0.005	.
9310	17034	1	BS 9310	0.091	0.638	0.010	0.0053	0.224	0.146	3.04	1.16	0.028	0.013	0.093	0.0107	0.0011	0.0035	<0.05
9310		1	IARM FeE9310-18	0.121	0.62	0.009	0.0128	0.256	0.158	3.07	1.09	0.036	0.009	0.086	0.0070	.	0.0030	.
9325	LAST	2	BS 9325	0.25	0.91	0.008	0.007	0.32	0.13	3.29	1.48	0.030	0.010	0.31	0.0089	.	0.004	.
Alloy	ISO	#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	Ti	V	W

Number	As	B	Bi	Ca	Fe	Mg	Nb	O	Pb	Sb	Sn	Ta	Zn	Zr	Units			
IARM Fe5140H-18	(0.011)	.	.	.	.	.	(0.0015)	.	.	.	0.0069	.	.	.	Disc 31 mm Ø x 2 or 18 mm			
IMZ 116	Als: 0.012	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm			
BS 4941	(0.004)	.	.	(0.0002)	.	.	.	0.0017	.	.	0.006	.	.	.	Disc 41 mm Ø x ~7 or 19+ mm			
IARM Fe6150-22	0.0060	.	.	0.0014	.	.	.	0.0014	.	0.0016	0.0069	.	.	.	Disc 38 mm Ø x 3 or 19 mm			
12X 86200-21	0.0045	.	.	.	.	.	0.0014	.	.	0.0024	0.0094	.	.	(0.0014)	Disc 38 mm Ø x 19 mm			
BS 1931	0.007	.	.	(0.0008)	.	.	(0.0052)	.	.	0.007	.	.	.	.	Disc 41 mm Ø x ~7 mm			
BS 8620G	0.0049	0.0002	.	0.0015	97.1	(0.0004)	0.0020	0.0032	<0.005	0.0020	0.0095	<0.0005	<0.005	(0.0007)	Disc 38 mm Ø x ~7-or 19+ mm			
IARM Fe8620-18	0.009	.	.	.	.	.	(0.0014)	.	.	.	0.0090	.	.	.	Disc 31 mm Ø x 2 or 18 mm			
IPT 502	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 36 mm Ø x 20 mm			
BS 8620A	0.007	.	0.073	0.0003	.	.	.	(0.004)	(0.001)	.	0.009	.	.	.	Disc 38 mm Ø x ~7 mm			
BS 8630	0.0038	(0.0002)	.	(0.0007)	97.3	(0.0007)	(0.0006)	0.0008	(0.0007)	0.0012	0.0029	.	.	(0.001)	Disc 44 mm Ø x 19+ mm			
BS 8740	0.0051	0.0003	.	(0.0003)	96.91	(0.0002)	(0.0007)	(0.001)	(0.0003)	0.0017	0.008	(0.003)	.	(0.001)	Disc 38 mm Ø x ~7 or 19+ mm			
IARM 252C	0.004	(0.0001)	.	(0.0003)	.	.	0.002	(0.002)	0.001	<0.005	0.007	.	.	<0.002	Disc 31 mm Ø x 2 mm			
IARM 252D	0.0053	(0.0002)	(0.0005)	(0.001)	.	(0.0002)	0.0013	(0.0013)	(0.0004)	0.0024	0.012	.	(0.0005)	(0.0013)	Disc 31 mm Ø x 2 mm			
IARM 252E	0.0046	.	.	.	.	.	.	.	.	.	0.0075	.	.	.	Disc 31 mm Ø X 2 or 18 mm			
IARM 252F	(0.006)	.	.	.	.	.	0.0016	.	.	.	0.006	.	.	.	Disc 31 mm Ø X 2 or 18 mm			
BS 8822A	0.0027	0.0004	.	(0.0002)	96.9	.	0.0024	0.0068	0.0005	(0.0016)	(0.003)	0.007	<0.01	(0.002)	Disc 37 mm Ø x 25 mm			
BS 58C	.	.	.	.	.	.	.	.	.	.	(0.012)	.	.	.	Disc 39 mm Ø x ~17 mm			
BS 58D	.	.	.	.	.	.	.	.	.	.	0.012	.	.	.	Disc 41 mm Ø x ~7 mm			
BS 9310	0.0048	<0.005	.	0.0002	94.5	<0.005	<0.05	0.0009	<0.005	0.0019	0.0078	.	<0.005	0.0010	Disc 41 mm Ø x ~7 or 19 mm	H: 0.0002		
IARM FeE9310-18	.	.	.	.	94.6	.	.	(0.0017)	.	.	0.0072	.	.	.	Disc 31 mm Ø x 2 or 18 mm			
BS 9325	0.004	.	.	0.0049	.	.	.	0.0010	.	.	0.009	.	.	.	Disc 38 mm Ø x ~7 mm			
Number	As	B	Bi	Ca	Fe	Mg	Nb	O	Pb	Sb	Sn	Ta	Zn	Zr	Unit			

TOOL STEEL ALLOYS, CONTINUED ON THE NEXT PAGE

1 = CRM, 2 = RM, 3 = RM with no uncertainties

Alloy	ISO	#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	Ti	V	W	
9-4-30	LAST	1	IARM 341A	0.298	0.226	0.0038	0.0008	0.10	0.143	7.16	0.99	0.032	4.4	1.01	0.0025	0.003	0.086	(0.01)	
709		2	CT X67975	0.48	0.56	0.009	0.005	0.28	0.060	0.13	1.00	.	.	0.53	.	.	0.30	.	
6150		1	IARM 34C	0.50	0.739	0.0090	0.0011	0.30	0.078	0.085	0.914	0.068	0.005	0.022	0.0030	0.0045	0.206	(0.003)	
6526		2	BS 9-4-30	0.316	0.22	0.008	<0.002	0.06	0.088	7.25	1.00	0.004	4.46	1.01	0.0014	.	0.09	.	
A-10		2	BS A-10	1.41	1.75	0.016	0.022	1.15	0.016	1.82	0.24	0.006	(0.010)	1.53	.	.	(0.004)	<0.005	
A-11	17025, 34	2	BS 10V	2.46	0.52	0.019	0.079	0.89	0.076	0.08	5.41	(<0.002)	0.009	1.30	0.064	.	9.50	0.013	
A-11		1	BS A-11	2.42	0.507	0.023	0.123	0.98	0.092	0.25	5.21	0.0054	0.044	1.25	0.110	0.0019	9.24	(0.080)	
A-2		2	BS 36C	0.96	0.46	0.023	0.027	0.31	0.18	0.19	5.01	.	0.03	0.99	.	.	0.11	(0.04)	
A-2		2	BS 36D	0.97	0.68	0.021	0.007	0.27	0.060	0.089	5.25	0.010	0.010	0.96	0.0108	.	0.29	0.028	
A-2	* Provisional	1	BS 36E *	0.98	0.55	0.019	0.002	0.27	0.052	0.14	4.91	0.014	0.014	0.99	0.009	0.003	0.20	0.015	
A-2		2	CT A2	0.95	0.72	0.010	0.004	0.40	0.06	0.10	5.13	.	.	1.05	.	.	0.22	.	
A-2		1	IARM 39B	0.99	0.54	0.017	0.003	0.35	0.10	0.14	4.79	0.006	0.014	1.01	0.0096	0.003	0.22	(0.026)	
A-2		1	IARM 39C	0.99	0.45	0.019	0.007	0.28	0.077	0.144	4.99	0.017	0.013	0.97	0.011	0.0029	0.21	0.011	
A-6		2	BS 40B	0.71	2.28	0.020	0.006	0.35	0.076	0.089	1.18	0.002	0.020	1.07	0.0076	0.002	0.10	0.11	
A-6		1	IARM 40B	0.68	1.98	0.012	0.003	0.39	0.050	0.096	1.04	(0.006)	0.015	1.22	0.0107	0.003	0.014	0.013	
A-6	17025, 34	1	IARM 40C	0.72	1.91	0.014	0.012	0.32	0.142	0.255	0.99	0.019	0.010	1.27	0.0083	0.008	0.010	0.009	
CPM15V		1	BS PM15	3.54	0.416	0.0198	0.0127	0.912	0.142	0.203	5.33	0.0025	0.0330	1.22	0.111	0.0029	14.79	0.109	
CPM15V		* Provisional	1	BS PM15B *	3.43	0.39	0.019	0.019	0.91	0.11	0.12	5.42	0.004	0.025	1.28	0.091	0.003	15.1	0.14
CPM15V		* Provisional	1	BS PM15A *	3.38	0.39	0.017	0.016	0.91	0.096	0.12	5.43	0.005	0.025	1.28	0.11	0.003	15.2	0.14
CPM15V		1	IARM Fe15V-18	3.51	0.39	0.022	0.010	0.89	0.084	0.123	5.5	.	0.018	1.24	.	0.0027	15.6	0.080	
D-2	LAST	2	BS 37D	1.54	0.28	0.021	0.015	0.29	0.063	0.21	11.07	.	0.07	1.09	0.016	.	0.80	0.16	
D-2		2	BS 37E	1.51	0.29	0.024	0.002	0.37	0.053	0.34	11.54	0.002	0.021	0.79	0.052	0.002	0.78	0.021	
D-2		1	BS 37G	1.663	0.326	0.021	0.0007	0.352	0.044	0.152	11.77	0.0060	0.0166	0.78	0.0310	0.0025	0.70	0.034	
D-2		* Provisional	1	BS 37H *	1.56	0.30	0.027	0.001	0.31	0.20	0.35	11.7	0.010	0.020	0.79	0.030	0.002	0.61	0.028
D-2		2	CT D2	1.53	0.48	0.013	0.005	0.40	0.04	0.10	11.46	.	0.02	0.75	.	.	0.89	<0.01	
D-2	17025, 34	1	IARM 41D	1.519	0.256	0.021	0.012	0.256	0.047	0.114	11.5	0.014	(0.020)	0.74	0.0152	(0.003)	0.77	0.034	
D-6		1	BS D-6	0.472	0.78	0.007	0.0008	0.228	0.130	0.602	0.99	0.037	0.012	1.01	0.0031	0.0025	0.122	0.0018	
D-6		1	BS D-6A	0.47	0.78	0.0076	0.0010	0.232	0.136	0.60	0.99	0.038	0.013	1.00	0.0031	0.0024	0.123	0.0019	
D-6 AC		1	IARM 299A	0.469	0.70	0.008	0.002	0.22	0.100	0.57	1.03	0.092	0.0054	0.99	0.0028	0.0038	0.120	0.010	
D-7		1	DSZU C082	2.32	0.33	0.029	0.014	0.36	0.118	0.239	12.24	.	0.035	1.11	.	.	4.02	0.17	
D-11	LAST	1	IARM 35L	0.119	0.535	0.007	0.014	0.679	0.123	0.071	1.35	0.017	0.0070	0.607	0.0072	(0.0015)	0.0037	(0.004)	
F-2		2	CT X27081	1.32	0.20	0.004	0.001	0.24	0.026	0.031	0.052	.	.	0.008	.	.	3.39	.	
H-10		2	BS 49	0.36	0.33	0.014	0.015	0.92	0.072	0.20	3.51	0.004	2.00	2.41	0.0186	0.003	0.62	0.31	
H-11		2	BS TH11	0.423	0.31	0.016	0.005	0.88	0.041	0.11	5.04	.	(0.008)	1.27	.	.	0.46	(0.01)	
H-11		1	ECRM 276-2D	0.399	0.365	0.0093	0.0189	1.034	0.183	0.203	4.975	.	.	1.134	0.0116	.	0.296	.	
H-11		1	IARM 255A	0.403	0.27	0.013	0.0012	0.93	0.049	0.083	4.84	0.01	0.009	1.33	0.0067	0.002	0.43	0.007	
H-11		1	IARM 255B	0.389	0.317	0.010	(0.002)	0.91	0.073	0.062	4.82	0.032	0.0090	1.30	(0.005)	.	0.515	.	
H-11		1	IMZ 173	0.30	0.43	0.029	0.020	1.15	0.32	0.42	5.52	0.060	(0.013)	1.50	0.0342	(0.002)	0.47	0.10	
H-12		2	BS TH12	0.372	0.40	0.020	0.005	0.92	0.064	0.16	5.02	.	0.07	1.41	.	.	0.62	1.06	
H-13		2	BS 34D	0.395	0.38	0.017	0.005	1.06	0.049	0.10	5.15	.	0.031	1.24	.	.	0.94	0.10	
Alloy	ISO	#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	Ti	V	W	
H-13	17034	1	BS H-13A	0.391	0.445	0.0187	(0.003)	1.13	0.083	0.139	5.11	(0.03)	0.033	1.32	0.034	(0.03)	0.92	0.100	
H-13		2	CT H13	0.39	0.30	0.015	0.005	1.05	0.061	0.10	5.23	.	.	1.36	.	.	1.02	.	
H-13		1	IARM 42C	0.382	0.40	0.022	0.0037	0.85	0.066	0.051	4.86	0.018	0.022	1.29	0.0201	0.0125	0.84	0.32	
H-13		1	IMZ 174	0.33	0.32	0.029	0.023	0.93	0.17	0.13	5.10	0.080	0.011	1.24	0.0288	(0.001)	0.98	0.021	
H-19	17025, 34	1	BS H-19	0.404	0.318	0.014	0.011	0.29	0.055	0.114	4.27	<0.001	4.17	0.356	0.0190	(0.002)	2.05	4.02	
L-2, 6150	17034	1	BS 43A	0.49	0.82	0.0074	0.025	0.252	0.18	0.24	0.92	(0.003)	0.008	0.059	0.0072	(0.002)	0.145	(0.005)	
L-6		2	BS 39B	0.67	0.62	0.009	0.019	0.214	0.163	1.45	0.79	(0.011)	(0.02)	0.17	.	.	(0.01)	.	
L-6		1	IARM FeL6-18	0.718	0.605	0.013	0.0017	0.264	0.027	1.34	0.71	0.020	0.007	0.237	0.0064	0.0033	0.008	.	
M-1		2	BS TM1	0.86	0.23	0.007	0.012	0.46	0.054	0.057	3.72	.	.	8.4	.	.	1.05	1.7	
M-1		2	CT M1	0.80	0.30	0.012	0.005	0.22	0.087	0.12	3.91	.	.	8.22	.	.	1.05	1.58	
M-1		1	IARM 304A	0.857	0.260	0.019	0.0016	0.36	0.14	0.133	3.55	0.009	0.278	8.04	0.034	0.002	1.23	1.65	
M-1		1	IARM FeM1-18	0.85	0.318	0.013	(0.003)	0.44	0.091	0.104	3.67	0.007	0.226	8.0	0.037	0.0044	1.19	1.98	
M-2		2	BS 32D	0.85	0.30	0.027	0.0022	0.25	0.039	0.053	4.14	0.018	0.010	4.92	0.018	.	1.82	6.15	
M-2		2	CT M2	0.82	0.33	0.012	0.004	0.27	0.06	0.25	4.03	.	.	4.96	.	.	1.81	6.47	
M-2	LAST	1	IARM 44C	0.82	0.301	0.027	0.004	0.31	0.12	0.132	4.04	0.05	0.247	5.02	0.033	0.004	1.91	6.0	
M-2		1	IARM FeM2-18	0.853	0.337	0.025	(0.0010)	0.26	0.098	0.182	4.23	(0.014)	0.28	4.92	0.0148	(0.0016)	1.90	5.81	
M-2		1	SRM 1157	0.836	0.34	0.011	0.004	0.18	0.088	0.228	4.36	.	0.028	4.86	.	.	1.82	6.28	
M-4		1	IARM 251A	1.398	0.33	0.014	0.058	0.58	0.13	0.131	4.1	0.01	0.129	5.16	0.044	0.003	3.9	5.5	
M-4		1	IARM FEM4-18	1.42	0.298	0.013	0.062	0.60	0.104	0.127	4.16	.	0.080	5.07	0.042	0.0018	3.97	5.55</	

TOOL STEEL ALLOYS, CONTINUED FROM THE PREVIOUS PAGE

Number	As	B	Bi	Ca	Fe	Mg	Nb	O	Pb	Sb	Sn	Ta	Zn	Zr	Units
IARM 341A	(0.003)	0.0005	.	0.0011	.	.	(0.005)	0.0008	(0.001)	(0.001)	(0.005)	.	(0.0002)	(0.003)	Disc 31 mm Ø x 2 or 18 mm
CT X67975	.	.	.	.	.	.	.	.	.	.	0.003	.	.	.	Disc 30-35 mm Ø x ~16 mm
IARM 34C	0.0024	0.0003	(0.00001)	(0.0004)	.	.	0.004	0.0008	(0.0003)	(0.001)	0.0058	.	.	(0.001)	Disc 31 mm Ø x 2 or 18 mm
BS 9-4-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 35 mm Ø x ~7 or 19+ mm
BS A-10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x ~7 or 19+ mm
BS 10V	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 41 mm Ø x ~7 or 19+ mm
BS A-11	0.0057	0.0008	.	(0.0002)	79.5	(0.0005)	(0.0070)	0.028	(0.00006)	(0.001)	0.0055	.	.	(0.001)	Disc 38 mm Ø x ~7 or 19+ mm
BS 36C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm
BS 36D	0.002	.	.	.	.	.	.	.	.	.	0.016	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm
BS 36E *	<0.005	<0.005	.	<0.005	91.8	.	0.003	0.001	<0.005	0.003	0.007	0.007	.	0.001	Disc 38 mm Ø x ~7 or 19+ mm
CT A2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm
IARM 39B	.	.	.	.	.	.	0.006	.	.	.	0.004	.	.	.	Disc 31 mm Ø x 2 or 18 mm
IARM 39C	(0.005)	0.001	.	(0.001)	.	.	0.0040	0.001	(0.0001)	(0.002)	0.005	.	.	(0.002)	Disc 31 mm Ø x 2 or 18 mm
BS 40B	0.004	0.0006	.	.	.	.	.	.	.	.	0.005	.	.	.	Disc 41 mm Ø x ~7 or 19+ mm
IARM 40B	.	(0.0010)	.	.	.	.	0.005	(0.0014)	.	.	0.004	.	.	.	Disc 31 mm Ø x 2 or 18 mm
IARM 40C	0.008	0.0009	.	(0.001)	.	.	0.003	0.0013	.	.	0.008	.	.	(0.002)	Disc 31 mm Ø x 2 or 18 mm
BS PM15	0.0040	(0.0002)	.	(0.0001) [73.0]	.	(0.0002)	0.014	0.0129	(0.00001)	(0.0010)	0.0034	(0.0003)	.	(0.0005)	Disc 38 mm Ø x 19+ mm
BS PM15B *	0.004	0.0002	.	<0.005 [72.7]	.	.	0.015	0.019	.	.	0.005	<0.005	.	<0.005	Disc 51 mm Ø x ~7 or 19+ mm
BS PM15A *	0.004	0.0002	.	<0.005 [72.6]	.	<0.005	0.015	0.019	.	.	0.003	.	.	<0.005	Disc 51 mm Ø x ~7 or 19+ mm
IARM Fe15V-18	.	.	.	.	.	.	.	.	.	.	0.0054	.	.	.	Disc 38 mm Ø x 2 or 19 mm
BS 37D	.	.	.	.	.	.	.	0.0031	.	.	0.004	.	.	.	Disc 37 mm Ø x ~7 or 19+ mm
BS 37E	0.002	(0.001)	.	.	.	.	(0.003)	(0.0025)	(0.0005)	(0.002)	0.003	.	.	.	Disc 41 mm Ø x 19 mm
BS 37G	0.0026	0.0003	.	0.0014	.	.	0.0026	.	0.0005	0.0009	0.0010	.	.	.	Disc 34 mm Ø x 19 mm
BS 37H *	0.003	<0.005	.	<0.005	84.0	<0.005	0.004	0.001	<0.005	0.001	0.004	.	.	0.001	Disc 38 mm Ø x ~7 or 19+ mm
CT D2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm
IARM 41D	(0.01)	(0.0006)	.	(0.0008)	.	.	(0.004)	(0.003)	(0.0008)	.	(0.005)	.	.	(0.002)	Disc 31 mm Ø x 2 or 18 mm
BS D-6	0.011	(0.0003)	.	0.0011	.	0.0002	(0.002)	(0.0008)	(0.0003)	0.0012	0.0104	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm
BS D-6A	0.0101	0.0004	.	0.0011	95.6	(0.00014)	<0.01	0.0009	(0.0006)	0.0014	(0.009)	(0.011)	.	<0.01	Disc 38 mm Ø x 19 mm
IARM 299A	0.003	0.0003	.	(0.001)	.	.	0.006	(0.002)	(0.001)	(0.002)	0.0055	.	.	(0.001)	Disc 31 mm Ø x 2 or 18 mm
DSZU C082	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~35 mm Ø x 25 mm
IARM 35L	0.0045	0.00044	.	.	.	.	(0.0026)	.	.	.	0.0088	.	.	.	Disc 31 mm Ø x 2 mm
CT X27081	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm
BS 49	.	.	.	.	.	.	.	.	.	.	(0.004)	.	.	.	Disc 49 mm Ø x ~7 or 19+ mm
BS TH11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm
ECRM 276-2D	.	.	.	.	.	.	.	.	.	.	0.0133	.	.	.	Disc 38 mm Ø x 25 or 30 mm
IARM 255A	(0.002)	0.0004	.	(0.0004)	.	.	0.004	0.0011	<0.001	.	0.006	.	.	<0.005	Disc 31 mm Ø x 2 mm
IARM 255B	.	.	.	.	.	.	(0.006)	.	.	.	(0.006)	.	.	.	Disc 31 mm Ø x 2 or 18 mm
IME 173	.	.	.	.	.	.	.	.	.	.	0.012	.	.	.	Disc 31 mm Ø x 40 mm
BS TH12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x ~7 mm last
BS 34D	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 41 mm Ø x ~7 mm last
Number	As	B	Bi	Ca	Fe	Mg	Nb	O	Pb	Sb	Sn	Ta	Zn	Zr	Units
BS H-13A	0.0050	(0.0007)	.	(0.0006)	90.2	(0.0002)	0.0052	(0.016)	(0.0004)	(0.002)	(0.005)	.	.	(0.002)	Disc 38 mm Ø x ~7 or 19+ mm
CT H13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm
IARM 42C	(0.01)	0.0011	.	(0.0005)	.	.	(0.004)	0.003	0.0007	(0.004)	(0.006)	(0.004)	(0.008)	(0.002)	Disc 31 mm Ø x 2 or 18 mm
IME 174	.	.	.	.	.	.	.	.	.	.	0.010	.	.	.	Disc 40 mm Ø x 40 mm
BS H-19	0.0056	.	.	.	.	.	0.008	0.0071	.	.	0.0056	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm
BS 43A	(0.005)	(0.0002)	.	(0.0006)	[96.8]	(0.0001)	(0.0017)	(0.003)	.	(0.002)	0.011	.	.	(0.001)	Disc 41 mm Ø x ~7 or 19+ mm
BS 39B	.	.	.	.	.	.	.	.	.	.	(0.011)	.	.	.	Disc 41 mm Ø x ~7 or 19+ mm
IARM FeL6-18	0.0033	(0.0008)	.	.	.	.	(0.003)	0.0012	.	.	.	.	.	.	Disc 38 mm Ø x 2 or 19 mm
BS TM1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 41 mm Ø x ~7 or 19+ mm
CT M1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm
IARM 304A	(0.01)	0.002	.	(0.002)	.	.	0.021	0.002	.	(0.001)	0.006	(0.002)	.	(0.002)	Disc 31 mm Ø x 2 mm
IARM FeM1-18	.	.	.	.	.	.	.	.	.	.	0.0041	(0.0024)	.	0.0013	Disc ~38 mm Ø x ~3 or ~19 mm
BS 32D	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm
CT M2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm
IARM 44C	(0.01)	(0.002)	.	.	.	.	0.012	(0.003)	(0.002)	(0.004)	0.010	(0.004)	(0.006)	(0.002)	Disc 31 mm Ø x 2 mm
IARM FeM2-18	(0.008)	.	.	.	81.4	.	(0.021)	(0.0016)	.	.	(0.007)	.	.	.	Disc 31 mm Ø x 2 or 18 mm
SRM 1157	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 32 mm Ø x 19 mm
IARM 251A	0.016	(0.002)	.	(0.0005)	.	.	0.016	(0.01)	(0.002)	.	0.011	.	.	(0.002)	Disc 31 mm Ø x 2 mm
IARM FEM4-18	0.0058	.	.	.	79.0	.	.	.	.	.	0.0050	.	.	.	Disc ~38 mm Ø x ~3 or ~19 mm
CT M7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm
CT M10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm
IARM 324A	0.006	0.0004	.	0.0009	.	.	0.014	0.003	.	(0.002)	0.011	.	.	(0.001)	Disc 31 mm Ø x 2 mm
IARM 320A	0.013	0.0011	.	.	.	.	(0.015)	(0.0021)	.	.	0.008	.	.	(0.003)	Disc 31 mm Ø x 2 or 18 mm
SS 487/1	(0.012)	.	.	.	.	.	.	.	.	.	(0.006)	.	.	.	Disc 38 mm Ø x 19 mm
BS M-47	0.006	.	.	(0.002)	.	.	(0.004)	0.0037	.	.	0.006	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm
BS M-50	0.0035	(0.0001)	.	(0.001)	88.8	(0.0002)	0.0008	0.0010	(0.0001)	(0.0006)	0.0045	(0.00001)	.	(0.0006)	Disc 38 mm Ø x ~7 or 19+ mm
IARM 306B	(0.003)	(0.001)	.	.	.	.	0.007	(0.001)	(0.001)	0.0025	0.004	.	.	(0.002)	Disc 31 mm Ø x 2 or 18 mm
IARM FeM62-18	.	(0.003)	.	.	.	.	(0.017)	(0.003)	.	.	.	.	.	.	Disc 31 mm Ø x 2 or 18 mm
BS 35D	.	.	.	.	.	.	(0.001)	.	.	.	0.006	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm
CT O1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~19 mm
CZ LA-4C	(0.003)	0.0005	.	.	.	.	0.053	.	.	.	(0.006)	.	.	.	Disc ~37 mm Ø x 25 mm
BS 41	.	.	.	.	.	.	.	.	.	.	(0.008)	.	.	.	Disc 42 mm Ø x ~7 or 19+ mm
BS 41A	0.002	.	.	0.0006	.	.	.	0.002	.	.	0.002	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm
IARM 45A	(0.003)	(0.0001)	.	.	.	.	0.002	(0.0017)	(0.0005)	.	0.005	.	.	.	Disc 31 mm Ø x 2 mm
IARM 45B	(0.002)	(0.0001)	.	(0.001)	.	.	(0.002)	(0.0005)	.	(0.001)	0.008	.	.	(0.001)	Disc 31 mm Ø x 2 or 18 mm
BS 68C	(0.004)	.	.	(0.0002)	.	.	(0.001)	.	.	.	0.008	.	.	.	Disc 37 mm Ø x ~7 or 19+ mm
IARM 46B	(0.01)	0.0003	.	.	.	.	0.003	0.002	<0.002	.	0.016	.	.	.	Disc 31 mm Ø x 2 or 18 mm
BS 33F	(0.003)	(0.0007)	.	.	94.0	.	(0.002)	0.0024	(0.0004)	(0.01)	(0.004)	.	.	(0.002)	Disc 38 mm Ø x ~7 - 19+ mm
BS 33D	.	.	.	.	.	.	.	.	.	.	0.005	.	.	.	Disc 41 mm Ø x 12+ mm
BS 33E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 12+ mm
BS 38C	0.011	.	.	.	.	.	(0.002)	.	0.022	.	0.022	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm
BS TS-5 *	<0.005	.	.	.	[96.1]	.	0.001	<0.005	.	.	0.002	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm
IARM 47B	.	(0.001)	.	.	.	.	(0.002)	(0.0014)	(0.0003)	.	0.08	.	.	.	Disc 31 mm Ø x 2 or 18 mm
BS TS-7A	(0.005)	0.0021	.	0.0004	92.3	<0.005	<0.01	(0.005)	<0.001	<0.01	(0.004)	<0.05	.	(0.0015)	Disc 36 mm Ø x 25 mm
IARM 259A	0.006	0.0003	.	.	.	.	0.003	0.0014	<0.0005	.	0.004	.	.	0.001	Disc 31 mm Ø x 2 mm
IARM FeS7-18	(0.005)	.	.	.	(93.6)	.	(0.005)	0.0023	0.0003	(0.0016)	(0.006)	.	(0.0011)	.	Disc 31 mm Ø x 2 or 18 mm
SRM 1772	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 34 mm Ø x 19 mm
BS 30D	0.0128	(0.0002)	.	0.0004	[75.0]	(0.001)	0.0071	0.0019	(0.0002)	0.0032	0.0246	(0.02)	.	(0.0001)	Disc 38 mm Ø x ~7 or 19+ mm
IARM FeT1-18	.	.	.	.	.	.	(0.004)	(0.0027)	.	.	(0.010)	.	.	.	Disc 31 mm Ø x ~2 or 18 mm
IARM 281A	(0.02)	(0.003)	.	.	.	(0.003)	0.094	(0.003)	.	.	0.02	.	.	(0.002)	Disc 31 mm Ø x 2 or 18 mm
BS TS15	(0.006)	(0.0005)	.	(0.001)	71.4	(0.002)	0.009	(0.018)	.	.	0.0074	.	.	(0.003)	Disc 38 mm Ø x ~7 or 19+ mm
IMZ 196	.	0.065	.	.	.	.	0.073	.	.	.	.	.	.	.	Disc 37 mm Ø x 30 mm
14X 72305A	.	.	.	.	.	.	.	.	.	.	0.0101	.	.	.	Disc ~40 mm Ø x ~15 mm
Number	As	B	Bi	Ca	Fe	Mg	Nb	O	Pb	Sb	Sn	Ta	Zn	Zr	Units

MANGANESE STAINLESS STEEL ALLOYS

1 = CRM, 2 = RM, 3 = RM with no uncertainties

Alloy	ISO	#	Number	Mn	C	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	Ti	V	W
12Mn18Cr		2	BS 193	12.11	0.104	0.018	0.002	0.66	0.088	1.82	18.48	(0.003)	0.028	0.21	0.37	0.003	0.107	(0.007)
18Cr2Ni12Mn		2	CT ISO035A	12.04	0.102	0.023	0.002	0.59	0.17	1.81	18.48	<0.004	0.037	0.28	0.33	0.001	0.058	0.002
201		2	BS 191	5.71	0.098	0.024	0.023	3.73	0.33	5.34	16.33	(0.002)	0.11	0.36	0.117	0.012	0.083	0.033
201		1	SRM 1297	7.11	0.066	0.038	0.0033	0.397	0.442	5.34	16.69	.	0.127	0.331	.	.	0.080	.
2101		1	IARM 292A	5.0	0.030	0.018	0.001	0.75	0.29	1.47	21.35	0.010	0.031	0.097	0.245	0.005	0.084	0.01
21Cr6Ni9Mn		2	CT ISO129A	9.31	0.030	0.002	<0.001	0.40	0.152	6.86	19.62	0.014	0.102	0.25	0.264	.	0.144	0.03
LDX2101		1	13X 32101A	4.91	0.0325	0.0194	(0.0004)	0.777	0.295	1.476	21.12	0.0122	0.0347	0.0970	0.241	.	0.0830	.
Nitronic 40		1	13X NSC6	8.85	0.0266	0.0049	0.0055	0.523	0.0064	6.52	20.47	(0.009)	.	(0.002)	0.235	.	0.0052	.
Nitronic 40		2	BS 190	9.72	0.022	0.015	0.001	0.46	0.072	6.74	19.57	(0.004)	0.044	0.15	0.255	0.002	0.11	0.015
Nitronic 40		1	IARM FeN40-18	9.13	0.019	0.025	0.0012	0.31	0.421	6.42	19.45	.	0.122	0.343	0.348	.	0.086	0.030
Nitronic 50	LAST	2	BS 180A	5.05	0.018	0.012	0.001	0.32	0.067	13.19	21.09	0.012	0.039	2.04	0.334	(0.002)	0.20	0.02
Nitronic 50	17034	1	BS 180B	4.65	0.022	0.017	0.0008	0.46	0.201	11.9	21.5	(0.007)	0.111	2.20	0.315	(0.005)	0.149	0.050
Nitronic 50		1	IARM 17D	4.15	0.041	0.026	0.0018	0.416	0.412	11.83	21.06	0.0032	0.23	1.52	0.311	0.010	0.118	0.056
Nitronic 50		1	IARM FeN50-18	5.27	0.030	0.026	(0.0013)	0.24	0.28	11.90	21.0	(0.006)	0.081	2.01	0.26	(0.002)	0.121	0.023
Nitronic 60	17025, 34	1	BS 181B	8.07	0.070	0.021	0.0009	3.94	0.206	8.18	16.17	0.0119	0.044	0.173	0.158	0.0051	0.044	0.016
Nitronic 60		1	IARM 18D	8.1	0.069	0.032	0.0025	3.68	0.421	8.39	16.7	(0.006)	0.086	0.325	0.170	0.012	0.064	(0.026)
NMS 100		1	IARM 214A	18.3	0.018	0.033	0.002	1.00	0.36	2.33	12.36	(0.002)	0.021	0.44	0.27	0.002	0.04	0.02
NMS 140		1	IARM 295A	19.7	0.021	0.028	0.0041	0.36	0.113	1.84	18.0	(0.01)	0.021	0.97	0.62	0.0019	0.046	0.016

Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Se	Sn	Ta	Zn	Zr	Units			
BS 193	.	0.0007	0.0020	.	.	0.014	(0.004)	.	.	0.004	.	.	.	.	Disc 32 mm Ø x ~7 or 19+ mm	.	.	.
CT ISO035A	.	.	.	65.91	.	0.004	.	(<0.0001)	.	0.003	.	.	<0.001	.	Disc 30-35 mm Ø x ~19 mm	.	.	.
BS 191	.	(0.0006)	.	.	.	0.024	0.002	.	.	(0.006)	0.002	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm	.	.	.
SRM 1297	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 32 mm Ø x 19 mm	.	.	.
IARM 292A	.	0.0011	.	.	.	0.009	0.0024	.	.	.	0.004	(0.006)	.	.	Disc 31 mm Ø x 2 mm	.	.	.
CT ISO129A	.	.	.	62.62	.	0.025	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm	.	.	.
13X 32101A	.	0.0014	.	.	.	0.0070	.	.	.	.	0.0035	(0.115)	.	.	Disc ~38 mm Ø x ~15 mm	.	.	.
13X NSC6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 13 mm	.	.	.
BS 190	.	0.0005	.	.	.	(0.004)	0.0045	.	.	.	0.003	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm	.	.	.
IARM FeN40-18	.	.	.	.	.	0.032	.	.	.	.	0.0081	.	.	.	Disc ~38 mm Ø x ~3 or ~19 mm	.	.	.
BS 180A	.	(0.0023)	.	.	.	0.20	0.003	.	.	(0.002)	.	.	.	.	Disc 37 mm Ø x ~7 mm	.	.	.
BS 180B	(0.004)	0.0011	0.0009	58.5	(0.0007)	0.131	0.0043	(0.002)	(0.0007)	.	0.0040	(0.003)	.	(0.0009)	Disc 38 mm Ø x ~7 or 19+ mm	.	.	.
IARM 17D	0.005	0.001	(0.002)	.	(0.0003)	0.14	0.003	(0.0002)	(0.001)	(0.001)	0.0044	(0.003)	(0.0004)	(0.002)	Disc 31 mm Ø x 2 mm	.	.	.
IARM FeN50-18	.	.	.	.	.	0.18	(0.006)	.	.	(0.007)	.	.	.	.	Disc 31 mm Ø x 2 or 18 mm	.	.	.
BS 181B	(0.002)	(0.0008)	(0.001)	62.9	(0.0003)	0.026	0.0010	(0.0005)	(0.0007)	.	(0.004)	.	.	(0.0004)	Disc 38 mm Ø x ~7 or 19+ mm	.	.	.
IARM 18D	.	(0.0011)	.	.	.	(0.031)	.	.	.	(0.007)	.	.	.	.	Disc 31 mm Ø x 2 mm	.	.	.
IARM 214A	.	(0.001)	.	.	.	0.23	0.0026	.	.	0.008	.	.	.	.	Disc 31 mm Ø x 2 mm	.	.	.
IARM 295A	.	0.002	.	.	.	0.018	(0.003)	.	.	0.004	.	.	.	(0.001)	Disc 31 mm Ø x 2 or 18 mm	.	.	.

RESULFURIZED STAINLESS STEEL ALLOYS

Alloy	ISO	#	Number	S	C	Mn	P	Si	Cu	Ni	Cr	Al	Co	Mo	N	Ti	V	W
182 FM		2	BS 150	0.33	0.048	1.71	0.020	0.43	0.042	0.19	18.61	0.002	0.024	1.97	0.029	.	0.054	0.01
303		1	13X 30300A	0.312	0.041	1.83	0.0205	0.422	0.025	8.60	17.62	.	0.0255	0.334	0.034	.	0.091	.
303	17025, 34	1	BS 303	0.326	0.044	1.80	0.028	0.415	0.627	8.17	17.23	0.0019	0.071	0.410	0.023	0.017	0.056	0.023
303		2	CT 303	0.31	0.070	1.64	0.029	0.58	0.49	9.08	17.78	.	0.16	0.41	.	.	0.044	.
303		3	CZ SP-1A	0.26	0.047	1.87	0.024	0.33	0.52	8.6	17.7	0.004	0.095	0.42	.	0.02	0.058	0.03
303		1	IARM Fe303-18	0.35	0.046	1.55	0.033	0.47	0.61	8.12	17.2	.	0.140	0.42	0.069	.	0.072	0.029
416	17025, 34	1	BS 416	0.35	0.116	0.64	0.0237	0.232	0.154	0.371	13.41	(0.002)	0.0241	0.030	0.043	0.0012	0.100	0.0034
416	LAST	2	BS 90F	0.328	0.085	0.53	0.023	0.58	0.12	0.30	13.01	(0.006)	0.021	0.14	0.037	.	0.076	0.032
416		2	CT 416	0.36	0.088	0.52	0.018	0.63	0.004	0.24	13.15	.	0.019	0.065	0.020	.	0.025	.
416		1	SRM 1223	0.329	0.127	1.08	0.018	0.327	0.081	0.232	12.64	.	.	0.053	.	.	0.068	.
416 H		1	13X 41600A	0.302	0.111	0.627	0.0253	0.442	0.160	0.331	13.23	(0.004)	0.0216	0.0499	0.0245	.	0.0888	(0.003)
420 F		2	BS 152	0.275	0.320	0.36	0.022	0.44	0.050	0.14	13.41	(0.002)	0.015	0.061	0.020	.	0.051	<0.01
420 F S		1	IARM 352A	0.21	0.341	1.13	0.0182	0.357	0.148	0.269	13.11	(0.0025)	(0.016)	0.38	0.029	0.0015	0.028	(0.005)
430 F		2	BS 153	0.280	0.026	0.41	0.018	0.53	0.052	0.140	17.38	0.002	0.017	0.30	0.021	(0.004)	0.045	(0.002)
430 F		2	BS 154	0.302	0.030	0.40	0.027	1.26	0.063	0.25	17.58	(0.002)	0.019	0.31	0.039	.	0.046	(0.01)
430 F S		1	IARM 355A	0.31	0.0274	0.47	0.0186	0.435	0.083	0.427	17.81	0.0016	0.047	0.337	0.0439	0.0020	0.038	(0.018)
440 F		2	BS 155	0.145	1.00	0.35	0.014	0.40	0.035	0.13	16.64	(0.001)	0.019	0.46	0.032	.	0.10	.

Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Se	Sn	Ta	Zn	Zr	Units			
BS 150	.	.	.	.	.	0.003	0.012	.	.	.	(0.003)	.	.	.	Disc 35 mm Ø x ~7 or 19+ mm	.	.	.
13X 30300A	.	0.0035	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	.	.	.
BS 303	.	0.0013	(0.0015)	[70.7]	.	0.008	0.0058	.	(0.002)	.	0.0091	.	.	.	Disc 44 mm Ø x ~7 or 19+ mm	.	.	.
CT 303	.	.	.	.	.	.	.	0.001	.	.	0.007	.	.	.	Disc 30-35 mm Ø x ~16 mm	.	.	.
CZ SP-1A	0.006	0.0007	.	.	.	0.012	.	.	.	.	0.01	.	.	.	Disc ~39 mm Ø x 25 mm	.	.	.
IARM Fe303-18	0.007	(0.0012)	.	.	.	0.015	(0.006)	.	.	.	(0.015)	.	.	.	Disc 31 mm Ø x 2 or 18 mm	.	.	.
BS 416	0.0039	(0.001)	(0.0003)	[84.3]	(0.0003)	0.006	0.0081	(0.0006)	(0.002)	.	(0.005)	(0.004)	.	(0.002)	Disc 38 mm Ø x ~7 or 19+ mm	.	.	.
BS 90F	.	.	.	.	.	0.011	0.011	.	.	.	0.005	.	.	.	Disc 38 mm Ø x ~7 to 19 mm	.	.	.
CT 416	.	.	.	.	.	.	.	<0.001	.	.	0.005	.	.	.	Disc 30-35 mm Ø x ~16 mm	.	.	.
SRM 1223	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 32 mm Ø x 19 mm	.	.	.
13X 41600A	.	.	.	.	.	0.0053	.	.	.	.	0.0066	.	.	.	Disc ~41 mm Ø x ~15 mm	.	.	.
BS 152	.	.	.	.	.	0.006	.	.	.	.	0.003	.	.	.	Disc 41 mm Ø x ~7 or 19+ mm	.	.	.
IARM 352A	(0.005)	(0.0007)	.	.	.	(0.012)	(0.005)	.	.	(0.006)	0.0046	(0.0007)	.	.	Disc 31 mm Ø x 2 or 18 mm	.	.	.
BS 153	(0.004)	.	.	.	.	0.002	.	(0.001)	.	.	0.002	.	.	.	Disc 35 mm Ø x ~7 or 19+ mm	.	.	.
BS 154	.	.	.	.	.	0.005	0.008	.	.	.	(0.005)	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm	.	.	.
IARM 355A	(0.004)	(0.0011)	.	.	(0.0008)	0.0095	(0.010)	(0.0002)	.	(0.0001)	(0.005)	(0.001)	(0.0007)	(0.002)	Disc 31 mm Ø x 2 or 18 mm	.	.	.
BS 155	.	.	.	.	.	0.002	0.0048	.	.	.	(0.003)	.	.	.	Disc 36 mm Ø x ~7 or 19+ mm	.	.	.

MARAGING STEEL ALLOYS

1 = CRM, 2 = RM, 3 = RM with no uncertainties

Alloy	ISO	#	Number	Co	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	N	Ti	V	W
A-538C	25, LAST	1	BS 161A	9.22	0.004	0.031	0.004	0.0007	0.032	0.22	18.40	0.12	0.14	4.82	(0.002)	0.65	0.031	(0.008)
C-350		1	IARM 309A	12.3	0.0059	0.018	0.004	0.0006	0.020	0.023	18.4	0.053	0.11	4.71	0.0010	1.47	0.01	0.01
250	17034	1	BS M250	7.9	0.0021	0.024	0.0031	(0.0005)	(0.003)	(0.003)	18.7	(0.004)	0.098	4.93	<0.005	0.422	<0.05	(0.007)
250		2	CT 250	7.54	0.002	0.006	0.003	0.002	0.008	0.008	18.44	0.008	0.058	4.88	.	0.41	.	.
250		1	ECRM 285-2D	7.76	0.0018	0.0168	0.0053	0.0025	0.0117	0.0094	18.07	0.0236	0.1067	4.99	0.0007	0.520	.	.
250		1	IARM 308A	7.80	0.003	0.019	0.004	0.0005	0.014	0.018	18.53	0.023	0.097	4.78	0.0013	0.46	0.01	0.01
250		1	IARM FeC250-21	7.92	0.0028	0.022	0.0033	0.0006	0.0091	(0.0041)	18.6	(0.0093)	0.101	4.93	0.0004	0.418	(0.0074)	(0.0069)
300	17034	1	BS 161B	9.28	0.0031	0.010	(0.004)	0.0007	0.0107	0.010	18.56	0.034	0.073	4.87	0.0011	0.67	0.0011	0.010
300		2	CT 300	9.07	0.005	0.032	0.005	0.004	0.030	0.047	18.51	0.034	0.12	4.97	.	0.69	.	.
300		1	IARM 99D	9.24	(0.006)	(0.013)	(0.004)	0.0011	(0.03)	(0.045)	18.4	(0.12)	0.117	4.8	(0.0014)	0.67	(0.037)	(0.010)
Number	As	B	Ca	Fe	H	Mg	Nb	O	Sb	Sn	Ta	Zr	Units					
BS 161A	(0.002)	0.0023	(0.0008)	.	.	.	(0.004)	(0.0004)	.	(0.0015)	(0.03)	(0.002)	Disc 38 mm Ø x ~12 or 19 mm					
IARM 309A	(0.004)	0.0032	<0.001	.	.	.	0.004	0.0005	.	(0.001)	(0.006)	0.008	Disc 31 mm Ø x 2 mm					
BS M250	.	0.0029	(0.003)	67.8	<0.0005	<0.005	<0.005	0.0005	<0.0005	<0.005	<0.005	0.0048	Disc 38 mm Ø x ~7 or 19+ mm					
CT 250	.	0.0024	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~19 mm					
ECRM 285-2D	.	0.0009	.	.	.	.	.	.	.	.	.	0.0050	Disc 38 mm Ø x 25 or 30 mm					
IARM 308A	.	0.0029	.	.	.	.	0.003	0.0005	.	0.001	<0.01	0.01	Disc 31 mm Ø x 2 mm					
IARM FeC250-21	(0.0011)	0.0029	.	.	.	.	0.0019	0.0006	(0.0044)	(0.0015)	(0.0128)	(0.0031)	Disc 38 mm Ø x 3 or 19 mm					
BS 161B	.	0.0027	.	66.6	.	.	(0.0034)	0.0005	.	(0.0011)	(0.017)	(0.005)	Disc 41 mm Ø x ~7 or 19+ mm					
CT 300	.	0.0020	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm					
IARM 99D	.	0.0026	.	.	.	.	(0.011)	.	.	.	.	.	Disc 31 mm Ø x 2 or 18 mm					

STAINLESS STEEL ALLOYS, CONTINUED ON THE NEXT PAGE

1 = CRM, 2 = RM, 3 = RM with no uncertainties

Alloy	ISO	#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	Ti	V	W
13-8PH		1	13X PH13800A	0.0386	0.0332	0.0064	0.0030	0.081	0.0449	8.04	12.53	1.075	0.0220	2.10	0.0041	0.0122	0.0188	.
13-8PH		2	BS 184A	0.035	0.06	0.007	0.001	0.080	0.041	8.34	12.66	1.00	0.036	2.20	0.0045	0.051	0.014	0.032
13-8PH		1	IARM 21D	0.032	0.052	0.008	(0.0014)	0.039	0.017	8.29	12.69	1.03	0.078	2.23	0.0037	0.016	0.017	(0.012)
15-5PH		2	BS 185A	0.033	0.49	0.022	0.002	0.38	3.41	4.43	14.46	0.002	0.026	0.30	0.027	(0.001)	0.048	(0.014)
15-5PH		2	BS 9621	0.035	0.31	0.017	0.0011	0.468	3.42	4.61	14.93	0.003	0.029	0.063	0.013	(0.001)	0.096	(0.01)
15-5PH		2	BS 9622	0.032	0.63	0.019	0.004	0.42	3.34	4.34	14.34	0.002	0.040	0.27	0.028	(0.001)	0.074	(0.020)
15-5PH		1	ECRM 273-1D	0.0336	0.785	0.0131	0.0004	0.378	3.046	4.85	14.747	.	0.0391	0.2462	0.0444	.	0.0512	.
15-5PH		1	IARM Fe155PH-18	0.015	0.616	0.021	(0.0004)	0.430	3.35	4.79	15.13	0.014	0.024	0.129	0.0494	.	0.055	0.019
16-6-2-2	XRF is LAST	1	IARM 318B	0.050	1.02	0.022	0.0006	0.41	1.63	5.71	15.9	(0.004)	0.100	1.57	0.032	0.014	0.115	0.087
17-4PH		1	13X PH2M	0.0598	1.184	0.0201	0.0419	0.502	4.03	3.56	16.80	0.0419	0.0927	1.009	0.052	0.049	0.1028	.
17-4PH	LAST	2	BS 17-4PHA	0.018	0.85	0.023	0.022	0.40	3.30	4.69	15.40	.	0.072	0.34	0.022	.	0.043	.
17-4PH	17034	1	BS 17-4PHC	0.033	0.81	0.022	0.027	0.399	3.23	4.24	15.40	0.0023	0.077	0.45	0.027	(0.001)	0.090	0.121
17-4PH		1	IARM Fe174PH-18	0.041	0.47	0.024	(0.0040)	0.52	3.33	4.73	15.10	0.007	0.047	0.315	0.0436	.	0.051	0.015
17-4PH		1	SRM C2400	0.036	0.71	0.013	0.003	0.61	2.63	4.07	17.06	.	0.10	0.23	.	.	0.092	.
17-7PH		1	13X PH17700A	0.0732	0.496	0.0181	0.0008	0.551	0.146	6.98	16.88	1.172	0.0464	0.340	0.0192	0.051	0.0390	0.009
17-7PH	25	1	BS 192	0.074	0.835	0.025	0.0005	0.387	0.412	7.11	16.44	1.17	0.104	0.430	0.0290	0.076	0.124	0.05
17-7PH	25	1	BS 192A	0.066	0.768	0.021	<0.002	0.300	0.334	7.01	16.44	0.98	0.114	0.28	0.029	0.083	0.077	0.048
17-7PH		1	IARM Fe177PH-18	0.080	0.730	0.020	(0.0005)	0.51	0.36	7.11	17.08	1.09	0.048	0.350	0.0153	0.083	0.062	(0.011)
253 MA	25	2	BS 253	0.094	0.58	0.018	<0.001	1.81	0.14	10.89	20.68	0.016	0.15	0.21	0.146	0.005	0.050	0.03
253 MA		1	IARM 316A	0.070	0.61	0.023	0.0011	1.50	0.19	10.81	21.07	0.006	0.118	0.250	0.16	(0.002)	0.042	0.022
255, 2507	LAST	1	BS 179A	0.017	1.04	0.021	0.001	0.44	1.94	5.84	25.45	(0.009)	0.58	3.24	0.184	0.006	0.070	(0.2)
255, 2507	17025, 34	1	BS 179B	0.0161	0.890	0.0243	0.0002	0.371	1.56	6.17	25.9	0.0070	0.0394	3.34	0.239	(0.0008)	0.079	0.053
255, 2507	17025, 34	1	BS 179C	0.0164	0.878	0.0236	0.0003	0.373	1.53	6.10	25.9	0.0078	0.0386	3.34	0.236	(0.0005)	0.080	0.056
255, 2507	17034	1	BS 2507	0.026	0.79	0.023	(0.0005)	0.32	0.222	6.94	25.3	(0.004)	0.040	3.75	0.273	0.0028	0.064	0.074
255, 2507		1	IARM 239C	0.017	0.87	0.023	(0.0010)	0.38	1.49	6.14	25.8	0.007	0.039	3.33	0.228	(0.004)	0.083	(0.05)
255, 2507		1	IARM 239B	0.013	0.86	0.025	0.0005	0.39	1.48	5.78	25.9	0.008	0.048	3.42	0.25	0.002	0.099	0.106
255, 2507		1	IARM Fe2507-21	0.019	0.85	0.024	0.0005	0.36	0.125	7.12	25.2	(0.0051)	0.039	3.76	0.27	0.0019	0.067	0.026
301		1	IARM 289A	0.126	1.67	0.006	0.0019	0.58	0.016	7.12	17.0	0.01	0.054	(0.005)	0.0032	0.028	0.01	0.01
301		1	IRSID 1819	0.112	0.903	0.023	0.0112	0.616	0.064	7.10	17.31	.	0.117	0.110	0.0288	.	.	.
302		1	IARM 241D	0.125	1.94	(0.003)	0.0023	1.00	0.242	8.98	18.12	0.022	0.022	(0.02)	(0.008)	0.018	0.031	(0.012)
302 HQ		1	IARM 234C	0.092	1.93	0.0090	(0.0027)	0.88	3.41	9.00	18.15	0.035	0.034	0.012	(0.01)	0.026	0.055	(0.006)
303 Se		1	IARM 253A	0.041	1.50	0.140	0.0089	0.50	0.223	9.17	17.90	0.003	0.088	0.348	0.0373	0.002	0.106	0.10
303 Se		1	IARM 253B	0.051	1.61	0.13	0.011	0.46	0.44	9.11	17.64	(0.004)	0.145	0.59	0.031	0.0027	0.092	(0.05)
304		2	ECRM 292-1D	0.0367	1.744	0.0175	0.0055	0.402	0.0391	10.09	18.00	(0.002)	0.0255	0.0464	0.0640	.	.	.
304 H		2	13X NSB1D	0.17	0.44	.	.	0.58	.	10.0	19.1	.	.	0.11	0.04	.	.	.
304 H		2	CT 304	0.063	0.78	0.026	0.023	0.56	0.34	9.60	18.57	.	0.20	0.33	.	.	0.037	.
304 H		1	IARM Fe304H-18	0.052	1.82	0.031	0.027	0.298	0.460	8.35	18.4	(0.005)	0.136	0.43	0.072	.	0.075	0.027
304 H		1	SS 468/1	0.143	1.70	0.014	0.020	1.41	.	8.90	17.96	.	0.018	.	.	.	.	.
304 H + Ca	17034	1	BS CA304-4	0.096	0.783	0.0205	0.0070	0.887	0.143	8.77	18.26	0.017	(0.007)	0.0041	0.061	0.0046	0.0686	0.0056
304 L		1	13X 30403B	0.0277	1.820	0.0321	0.0266	0.288	0.497	8.13	18.30	0.0056	0.178	0.313	0.083	0.0013	0.0700	0.035
304 L	17034	1	BS 304C	0.024	1.37	0.034	0.027	0.302	0.524	8.53	18.2	0.0022	0.229	0.419	0.077	(0.0024)	0.083	0.043
304 L		1	ECRM 287-1D	0.016	1.48	0.027	0.0014	0.569	0.203	10.35	18.61	.	0.148	0.247	0.019	.	.	.

Alloy	ISO	#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	Ti	V	W
304 L	last	1	IARM 162D	0.0240	1.82	0.0296	0.0271	0.570	0.52	8.15	18.31	(0.0026)	0.074	0.573	0.097	0.013	0.063	0.028
304 L		1	IARM Fe304L-22	0.013	1.46	0.031	0.0324	0.287	0.443	8.65	18.21	0.0020	0.331	0.362	0.083	0.0021	0.081	0.066
304 L		2	PV 111/1	0.0226	1.538	0.019	0.026	0.485	0.105	8.57	18.49	.	.	0.173	.	.	.	.
304 L		1	SS 463/1	0.019	1.400	0.025	0.019	0.270	0.276	10.20	18.46	.	0.116	0.265	0.063	.	.	.
304 L		2	TL 2003D	0.0193	1.068	0.0274	0.0169	0.5020	0.2773	9.231	18.25	.	0.1270	0.2871	0.0556	.	0.0711	0.0150
305		1	ECRM 297-1D	0.0223	0.897	0.0137	0.0101	0.344	0.204	12.33	18.37	0.0195	0.0413	0.290	0.0152	0.0072	0.0535	(0.0057)
306		1	13X 30600A	0.0090	0.648	0.0091	0.0007	4.23	0.0121	14.96	17.43	0.020	0.0149	0.0040	0.027	.	0.0206	.
308		1	DSZU C017	0.053	2.03	0.040	0.0298	0.61	0.36	10.85	19.21	0.28	.	2.36	0.018	0.32	0.084	0.20
309		2	BS 82E	0.062	1.61	0.027	0.001	0.58	0.26	12.49	22.38	0.006	0.12	0.31	0.072	0.003	0.064	0.041
309		1	IARM Fe309-18	0.066	1.61	0.029	(0.002)	0.30	0.430	12.2	22.42	.	0.248	0.357	.	.	0.073	0.063
309, 309 H	17034	1	BS 309	0.062	1.61	0.028	0.0011	0.24	0.349	12.16	22.40	(0.0025)	0.200	0.193	0.073	0.0020	0.075	(0.031)
310		1	13X 31008A	0.062	1.232	0.030	0.0040	0.510	0.157	16.35	24.45	.	0.078	0.337	0.063	.	0.079	0.166
310		2	BS 83G	0.073	1.66	0.024	0.004	0.56	0.114	19.15	24.50	(0.004)	0.153	0.085	0.026	(0.003)	0.077	0.007
310	25	1	BS 9841	0.067	1.69	0.024	0.024	0.54	0.356	19.55	24.30	(0.006)	0.116	0.57	0.064	(0.002)	0.070	0.06
310	25	1	BS 9842	0.059	1.50	0.025	0.0016	0.99	0.147	20.02	24.19	0.014	0.237	0.111	0.037	0.003	0.075	0.011
310		3	CZ SL-3A	0.043	1.73	0.024	0.002	0.53	0.22	19.6	24.6	0.007	0.06	0.38	0.065	0.003	0.066	0.03
310		1	IARM 4E	0.044	1.07	0.0224	0.0006	0.514	0.234	20.18	24.25	0.004	0.066	0.32	0.038	(0.003)	0.052	0.046
310		1	IARM 4F	0.047	1.17	0.0195	0.0015	0.494	0.146	20.1	24.5	0.015	0.067	0.142	0.056	0.0031	0.146	0.012
310		1	IARM 4G	0.0454	1.36	0.027	0.0008	0.630	0.320	19.2	24.9	0.008	0.085	0.580	0.058	0.029	0.092	0.017
310		1	SS 464/1	0.086	0.791	0.020	0.028	0.57	.	20.05	25.39	.	0.054	.	.	.	.	.
314		1	IMZ 165	0.082	0.98	0.017	0.007	1.42	0.040	19.01	23.28	0.038	0.029	0.025	0.105	(0.002)	0.042	.
314		1	IMZ 166A	0.108	1.99	0.019	0.005	2.51	0.025	21.93	25.53	0.036	0.030	(0.025)	0.077	0.003	0.038	.
316 H		2	CT 316	0.061	1.64	0.029	0.023	0.69	0.25	12.61	17.60	.	0.14	2.45	.	.	0.051	.
316 H		1	IARM 339A	0.16	1.71	0.004	0.009	0.64	0.021	12.9	17.0	0.004	0.007	2.79	0.0060	(0.002)	0.007	(0.0119)
316 H		1	NILAB 500HA D	0.041	1.541	0.024												

STAINLESS STEEL ALLOYS, CONTINUED FROM THE PREVIOUS PAGE

Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Se	Sn	Ta	Zr	Units
13X PH13800A	.	.	.	.	.	.	.	.	.	.	0.0051	.	.	Disc ~38 mm Ø x ~15 mm
BS 184A	.	(0.0004)	(0.0003)	.	.	(0.006)	(0.0003)	.	.	.	(0.002)	.	.	Disc 38 mm Ø x ~7 or 19+ mm
IARM 21D	.	.	.	.	.	(0.005)	.	.	.	.	.	.	.	Disc 31 mm Ø x 2 or 18 mm
BS 185A	.	0.0017	(0.0002)	.	.	0.32	(0.0021)	.	.	.	0.007	(0.002)	.	Disc 38 mm Ø x ~7 or 19+ mm
BS 9621	.	0.0004	(0.0001)	.	.	0.27	.	.	.	.	0.003	(0.002)	.	Disc 38 mm Ø x ~7 or 19+ mm
BS 9622	.	0.0004	.	.	.	0.33	.	.	.	.	0.006	.	.	Disc 38 mm Ø x ~7 or 19+ mm
ECRM 273-1D	0.0030	.	.	.	.	0.221	.	.	.	.	0.0021	.	.	Disc 40 mm Ø x 20 mm
IARM Fe155PH-18	(0.0026)	(0.0005)	.	75.03	.	0.273	0.0028	.	.	.	0.0021	.	.	Disc 31 mm Ø x 2 or 18 mm
IARM 318B	(0.004)	0.0003	.	.	.	0.086	0.009	.	.	.	0.004	(0.004)	(0.003)	Disc 31 mm Ø x 2 mm last
13X PH2M	.	0.0047	.	.	.	0.143	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
BS 17-4PHA	.	0.0016	.	.	.	0.204	.	.	.	.	.	(0.002)	.	Disc 38 mm Ø x ~7 mm
BS 17-4PHC	0.0043	0.0026	0.0007	74.8	.	0.258	0.010	(0.0001)	.	.	0.0100	.	(0.002)	Disc 44 mm Ø x ~7 or 19+ mm
IARM Fe174PH-18	.	.	.	.	.	0.285	0.0035	.	.	.	0.008	.	.	Disc 31 mm Ø x 2 or 18 mm
SRM C2400	.	.	.	.	.	0.15	.	.	.	.	.	.	.	Disc 32 mm Ø x 19 mm
13X PH17700A	.	0.0033	.	.	.	0.0201	.	.	.	.	0.0055	.	.	Disc ~38 mm Ø x ~15 mm
BS 192	(0.005)	(0.0003)	0.0007	.	.	0.168	0.0014	.	.	.	0.008	(0.001)	.	Disc 38 mm Ø x ~7 or 19+ mm
BS 192A	(0.0035)	(0.0003)	(0.0006)	.	.	0.208	(0.0006)	.	.	.	0.008	.	.	Disc 38 mm Ø x ~7 or 19+ mm
IARM Fe177PH-18	.	(0.0017)	.	.	.	0.009	.	.	.	.	(0.006)	.	.	Disc 31 mm Ø x 2 or 18 mm
BS 253	0.005	.	.	Ce: 0.044	.	0.017	.	.	.	.	0.006	.	.	Disc 38 mm Ø x ~7 or 19+ mm
IARM 316A	0.007	(0.0003)	0.0017	Ce: 0.064	.	(0.003)	0.0052	(0.0001)	.	.	0.006	(0.003)	.	Disc 31 mm Ø x 2 mm
BS 179A	(0.003)	(0.001)	.	.	.	0.030	.	.	.	.	0.005	.	.	Disc 31 mm Ø x ~7 mm
BS 179B	0.0036	0.0015	(0.0004)	[61.5]	(0.0004)	0.008	0.0037	(0.00002)	0.0005	.	0.0019	(0.0006)	(0.005)	Disc 38 mm Ø x 19+ mm
BS 179C	0.0034	0.0015	(0.0003)	[61.6]	(0.0004)	0.009	0.0038	(0.00002)	0.0005	.	0.0018	(0.0006)	(0.0042)	Disc 38 mm Ø x ~7 or 19+ mm
BS 2507	0.0046	0.0021	(0.0003)	62.3	(0.0002)	(0.011)	0.0038	(0.0002)	0.0008	.	0.0050	.	<0.01	Disc 38 mm Ø x ~7 or 19+ mm
IARM 239C	(0.004)	0.0014	.	.	.	(0.006)	(0.007)	(0.004)	(0.0004)	.	(0.003)	(0.004)	(0.003)	Disc 31 mm Ø x 2 or 18 mm
IARM 239B	.	0.0008	.	.	.	0.024	(0.004)	.	.	.	(0.003)	.	(0.002)	Disc 31 mm Ø x 2 mm
IARM Fe2507-21	0.004	0.0024	.	Rem	.	0.022	(0.0048)	.	0.0015	(0.0011)	0.0034	(0.0013)	0.0013	Disc 38 mm Ø x 3 or 19 mm
IARM 289A	.	0.0003	.	.	.	0.008	0.0104	.	.	.	(0.002)	<0.005	.	Disc 31 mm Ø x 2 mm
IRSD 1819	.	(0.0004)	.	.	.	.	.	.	.	.	.	.	.	Block 47 mm x 47 mm x 30 mm
IARM 241D	(0.001)	0.0016	(0.0012)	.	(0.0005)	0.028	(0.005)	(0.0003)	.	(0.005)	(0.0022)	(0.007)	(0.005)	Disc 31 mm Ø x 2 or 18 mm
IARM 234C	(0.001)	0.0023	(0.0017)	.	(0.002)	0.053	(0.005)	(0.001)	.	(0.003)	0.0017	(0.003)	(0.006)	Disc 31 mm Ø x 2 or 18 mm
IARM 253A	.	0.0003	.	.	.	0.016	0.009	.	.	.	0.21	.	.	Disc 31 mm Ø x 2 mm
IARM 253B	0.0052	0.0007	(0.0006)	.	(0.0006)	0.021	0.007	(0.0002)	(0.0018)	0.13	(0.012)	(0.003)	.	Disc 31 mm Ø x 2 or 18 mm
ECRM 292-1D	(0.008)	.	(0.0006)	.	.	0.571	.	.	.	.	.	(0.001)	.	Disc 38 mm Ø x 25 or 30 mm
13X NSBD	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
CT 304	.	.	.	.	.	0.043	.	<0.001	.	.	0.017	.	.	Disc 30-35 mm Ø x ~16 mm
IARM Fe304H-18	0.0076	.	.	.	.	(0.010)	(0.008)	.	.	.	(0.014)	.	.	Disc 31 mm Ø x 2 mm
SS 468/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 19 mm
BS CA304-4	0.0063	0.0031	0.0075	70.7	0.000024	0.063	0.013	0.0008	(0.0002)	.	0.0024	(0.002)	0.0036	Disc ~38 mm Ø x ~38 mm
13X 30403B	.	.	0.0027	.	.	0.0201	.	.	.	.	0.0139	.	.	Disc ~40 mm Ø x ~15 mm
BS 304C	0.0047	0.0005	(0.0002)	70.1	<0.005	(0.009)	0.0050	.	<0.05	H:0.0004	0.0119	.	(0.002)	Disc 38 mm Ø x ~7 or 19+ mm
ECRM 287-1D	.	0.924	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 25 or 30 mm

Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Se	Sn	Ta	Zr	Units
IARM 162D	0.0072	0.0027	(0.003)	.	(0.0001)	0.0090	0.005	.	(0.0019)	.	0.0102	(0.005)	.	Disc 31 mm Ø x 2 mm
IARM Fe304L-22	0.0054	0.0010	0.0005	.	.	0.015	(0.005)	.	0.0025	.	0.0101	.	.	Disc 38 mm Ø x 3 or 19 mm
FV 111/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 25 mm
SS 463/1	.	0.0022	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 19 mm
TL 2003D	.	.	.	.	.	0.0150	.	.	.	.	.	.	.	Disc 40 mm Ø x 20 mm
ECRM 297-1D	0.0040	1.146	(0.0002)	.	.	(0.0089)	.	.	.	.	.	.	(0.0002)	Disc 40 mm Ø x 30 mm
13X 30600A	.	.	.	.	0.0016	(0.004)	.	.	.	.	.	.	.	Disc ~32 mm Ø x ~20 mm
DS2U C017	.	.	0.0031	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 25 mm
BS 82E	.	0.0024	0.0014	.	.	0.062	.	.	.	.	0.006	.	.	Disc 38 mm Ø x ~7 to 19 mm
IARM Fe309-18	0.0065	.	.	.	.	0.021	.	.	0.0018	.	0.012	.	.	Disc ~38 mm Ø x ~3 or ~19 mm
BS 309	0.0048	(0.0004)	0.0010	62.6	(0.0002)	0.0090	0.0027	<0.005	(0.0017)	.	0.0089	<0.05	<0.005	Disc 38 mm Ø x ~7 or 19+ mm
13X 31008A	.	.	.	.	.	0.012	.	.	.	.	.	.	.	Disc ~38 mm Ø x ~15 mm
BS 83C	.	(0.001)	.	.	.	0.061	(0.0064)	.	.	.	0.003	.	.	Disc 38 mm Ø x ~7 or 19+ mm
BS 9841	(0.003)	0.0026	(0.0002)	.	.	0.070	(0.011)	(0.001)	(0.006)	.	0.006	.	(0.002)	Disc 44 mm Ø x ~7 or 19+ mm
BS 9842	(0.002)	0.0025	0.0010	.	.	0.026	(0.0044)	.	.	.	0.005	.	.	Disc 38 mm Ø x ~7 or 19+ mm
CZ SL-3A	.	0.002	.	.	.	0.013	.	.	.	.	0.006	.	.	Disc ~39 mm Ø x 25 mm
IARM 4E	(0.005)	0.0011	.	.	.	0.024	0.0021	.	.	.	0.0060	0.005	(0.001)	Disc 31 mm Ø x 2 mm
IARM 4F	(0.003)	(0.0012)	(0.002)	.	.	0.007	(0.004)	(0.001)	(0.001)	(0.001)	(0.005)	(0.007)	(0.002)	Disc 31 mm Ø x 2 or 18 mm
IARM 4G	(0.005)	0.0032	(0.001)	.	(0.007)	0.008	(0.003)	(0.0005)	(0.001)	(0.001)	0.008	(0.008)	(0.002)	Disc 31 mm Ø x 2 mm
SS 464/1	(0.003)	.	.	.	.	.	.	0.0004	.	.	.	.	.	Disc 38 mm Ø x 19 mm
IMZ 165	(0.003)	.	.	.	.	.	(0.001)	.	.	.	0.003	.	.	Disc 40 mm Ø x 40 mm
IMZ 166A	(0.0026)	.	.	.	.	.	.	.	.	.	(0.0035)	.	.	Disc 40 mm Ø x 40 mm
CT 316	.	.	.	.	.	.	0.001	.	.	.	0.006	.	.	Disc 30-35 mm Ø x ~19 mm
IARM 339A	(0.001)	0.0006	0.0014	.	(0.0001)	(0.005)	0.016	(0.002)	.	.	(0.002)	(0.005)	(0.003)	Disc 38 mm Ø x 20 mm
NILAB 500HA D	.	.	.	.	.	0.023	.	.	.	.	.	.	.	.
BS 316G	(0.006)	0.0023	0.0008	67.9	H:0.0004	0.063	0.0034	0.0006	0.0018	.	0.0100	.	(0.002)	Disc 38 mm Ø x ~7 or 19+ mm
CZ SL-2A	0.008	0.002	.	.	.	.	.	.	.	.	0.01	.	.	Disc ~39 mm Ø x 25 mm
IARM Fe316L-23	(0.006)	0.0018	.	.	.	0.067	(0.007)	.	.	.	0.0063	.	.	Disc
SRM 1155a	(0.007)	(0.002)	.	(64.71)	.	0.0082	(0.003)	<0.005	.	.	(0.0069)	<0.0001	<0.003	Disc 32 mm Ø x 19 mm
SS 466/2	0.0020	0.0039	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 19 mm
IMZ 153A	.	.	.	.	.	0.034	.	.	.	.	.	.	.	Disc 38 mm Ø x 20 mm
TL 2002D	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 20 mm
FV 112/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 25 mm
VS LG72	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~28 mm
BS 317L	(0.003)	0.0012	0.0017	[62.8]	(0.0004)	0.031	(0.006)	(0.0002)	(0.002)	.	0.0049	(0.002)	(0.004)	Disc 37 mm Ø x ~7 or 19+ mm
BS 9941	(0.010)	0.0025	(0.0003)	.	.	0.015	(0.0058)	.	.	.	0.007	.	.	Disc 38 mm Ø x ~7 or 19+ mm
BS 9942	(0.004)	0.0014	0.0014	.	.	0.005	(0.0023)	.	.	.	0.006	.	.	Disc 44 mm Ø x ~7 or 19+ mm
IARM 212D	(0.01)	0.001	(0.001)	.	.	(0.009)	0.0034	(0.001)	.	.	(0.003)	(0.003)	(0.004)	Disc 31 mm Ø x 2 mm
IARM Fe2205-18	.	.	.	.	.	0.011	(0.004)	.	.	.	(0.006)	.	.	Disc 31 mm Ø x 2 or 18 mm
13X NSA9B	.	0.0018	.	.	.	0.021	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
BS 2205A	0.0072	0.0022	0.0007	66.2	(0.0001)	0.010	0.0046	.	.	.	0.0058	.	(0.003)	Disc 38 mm Ø x ~7 or 19+ mm

Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Se	Sn	Ta	Zr	Units
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STAINLESS STEEL ALLOYS, CONTINUED FROM THE PREVIOUS PAGE

Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Se	Sn	Ta	Zr	Units
13X 32100A	.	0.0025	.	.	.	0.0191	.	.	.	.	0.0115	.	.	Disc ~38 mm Ø x ~15 mm
BS 321D	0.0040	0.0012	(0.0003)	69.8	0.0007	(0.009)	0.0009	(0.0003)	(0.001)	.	0.0091	.	(0.001)	Disc 44 mm Ø x ~7 or 19+ mm
BS 85D	(0.01)	(0.001)	0.0004	[67.8]	.	0.062	(0.002)	(0.001)	(0.001)	.	0.0062	(0.001)	(0.004)	Disc 38 mm Ø x ~7 to 19+ mm
HRT FE2014-H	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 35mm Ø x 20 mm
IARM 6i	(0.005)	0.0034	(0.0004)	.	.	(0.018)	0.0012	.	.	.	(0.0060)	.	(0.003)	Disc 31 mm Ø x 2 mm
IARM 6J	.	0.0024	.	.	.	0.010	(0.001)	.	.	.	(0.009)	(0.01)	.	Disc 31 mm Ø x 2 mm
SRM 1171	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 31 mm Ø x 19 mm
SS 465/1	.	0.0006	.	.	.	.	.	(<0.001)	.	.	.	.	.	Disc 38 mm Ø x 19 mm
IMZ 152	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm
BS 347A	(0.003)	(0.0004)	(0.0002)	.	.	0.79	0.0047	.	.	.	0.007	(<0.004)	.	Disc 38 mm Ø x 19+ mm
BS 347B	(0.003)	0.0036	(0.0005)	.	.	0.71	0.005	.	.	.	0.006	(<0.004)	.	Disc 38 mm Ø x ~7 or 19+ mm
IARM 8G	(0.007)	(0.0005)	(0.0005)	.	.	0.53	(0.003)	.	.	(0.01)	0.0107	(0.004)	(0.002)	Disc 31 mm Ø x 2 mm
IARM 8H	.	(0.0002)	.	.	.	0.48	(0.004)	.	.	.	(0.008)	(0.01)	.	Disc 31 mm Ø x 2 or 18 mm
IARM 8i	.	(0.0005)	.	.	.	0.60	(0.004)	.	.	.	(0.012)	.	.	Disc 31 mm Ø x ~7 or 18 mm
BS 87F	0.005	(0.0006)	0.0007	.	.	0.57	0.005	.	.	.	0.004	.	.	Disc 41 mm Ø x ~7 or 19+ mm
SRM 1172	.	.	.	.	.	0.65	.	.	.	.	.	<0.001	.	Disc 32 mm Ø x 19 mm
BS 355	0.0039	(0.0001)	(0.0002)	[75.9]	(0.0002)	0.0103	0.0020	(0.00003)	(0.0009)	.	0.0038	(0.0001)	(0.003)	Disc 40 mm Ø x ~7 or 19+ mm
IARM 335A	(0.01)	0.0007	(0.001)	.	.	0.015	0.0020	.	.	.	0.0034	(0.01)	(0.002)	Disc 31 mm Ø x 2 or 18 mm
SRM 1295	(0.006)	(<0.0004)	.	.	.	(<0.0005)	.	(0.0001)	(0.003)	(<0.0001)	(0.02)	(<0.001)	.	Disc 32 mm Ø x 19 mm
13X 40800A	0.004	.	.	.	.	0.020	.	.	(0.002)	.	0.0028	(0.027)	.	Disc ~40 mm Ø x ~15 mm
13X 40900A	.	.	.	.	.	0.032	.	.	.	.	0.0080	.	.	Disc ~40 mm Ø x ~15 mm
13X 40930A	.	.	.	.	.	0.051	.	.	.	.	0.0069	.	.	Disc ~40 mm Ø x ~15 mm
IARM Fe409-20	0.0026	.	.	.	.	0.0041	.	.	0.0011	.	0.0053	.	Zn: 0.010	Disc 38 mm Ø x 2 or 19 mm
NCS HS20743	Als: 0.021	.	.	.	.	.	.	.	.	.	.	.	.	Disc 35 mm Ø x 40 mm
13X 41008A	.	.	.	.	.	0.020	.	.	.	.	0.0077	.	0.007	Disc ~40 mm Ø x ~15 mm
13X 41008B	.	.	.	.	.	0.019	.	.	.	.	0.0081	.	0.047	Disc ~40 mm Ø x ~15 mm
BS 0021	(0.004)	(<0.0002)	(0.0002)	.	.	(0.001)	(0.004)	.	.	.	0.003	.	.	Disc 40 mm Ø x ~7 or 19+ mm
BS 0022	0.003	0.0007	.	.	(<0.0005)	0.007	(0.002)	(0.0006)	(0.0004)	.	0.004	.	(<0.003)	Disc 38 mm Ø x ~7 or 19+ mm
BS 410C	0.0029	(0.0001)	0.0022	[85.4]	(0.0003)	0.0056	0.0051	(0.0001)	(0.0002)	.	0.0023	(0.001)	(0.0002)	Disc 38 mm Ø x ~7 or 19+ mm
CT 410	.	.	.	.	.	0.001	.	<0.001	.	.	0.006	.	.	Disc 30-35 mm Ø x ~16 mm
IARM Fe410-18	.	.	.	.	.	0.0021	(0.009)	.	.	.	.	.	.	Disc 31 mm Ø x 2 or 18 mm
ECRM 296-1D	0.0139	(0.0003)	.	.	.	.	.	0.00016	.	.	0.0131	.	.	Disc 38 mm Ø x 25 or 30 mm
IMZ 161	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm
13X 41001A	.	.	0.0010	.	.	.	.	.	.	.	0.0051	.	.	Disc ~41 mm Ø x ~15 mm
13X 41500A	.	.	.	.	.	0.040	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
IARM Fe415-21	0.0036	0.0008	.	Rem	.	0.0049	0.0075	.	0.0019	.	0.0104	.	(0.0013)	Disc 38 mm Ø x 3 or 19 mm
IARM Fe416-22	(0.003)	.	.	.	.	(0.004)	(0.008)	.	.	.	0.0041	.	.	Disc
BS 151	.	.	.	.	.	0.005	0.009	.	.	0.328	0.005	.	.	Disc 50 mm Ø x ~7 or 19+ mm
IARM Fe418-18	.	.	.	.	.	(0.019)	(0.004)	.	.	.	(0.005)	.	.	Disc 31 mm Ø x 2 or 18 mm

Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Se	Sn	Ta	Zr	Units
13X 42000A	.	0.0013	.	.	.	.	.	.	.	.	0.0073	.	.	Disc ~38 mm Ø x ~15 mm
BS 98	(0.003)	(0.0002)	(0.0005)	.	.	0.003	0.0038	.	.	.	0.006	.	.	Disc 38 mm Ø x ~7 mm
BS 420	(0.003)	0.0002	0.0017	84.8	H:0.0001	(0.003)	0.0039	.	.	.	0.0041	.	0.0019	Disc 38 mm Ø x ~7 or 19+ mm
BS SS4951	0.002	(0.0002)	(0.0004)	.	.	0.006	0.0055	.	.	.	0.003	.	.	Disc 42 mm Ø x ~7 to 19+ mm
BS SS4952	0.002	(0.0004)	0.0019	.	.	0.004	0.005	.	.	.	0.004	.	.	Disc 38 mm Ø x ~7 or 19+ mm
ECRM 272-1D	0.0116	0.0018	0.00090	.	(0.0002)	0.0028	.	.	0.0007	.	.	.	Zn: 0.0031	Disc 38 mm Ø x 25 or 30 mm
IARM 154C	(0.004)	0.0007	.	.	.	0.014	(0.0042)	.	(0.001)	(0.0003)	0.0058	.	(0.0014)	Disc 31 mm Ø x 2 or 18 mm
SS 469	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 35 mm Ø x 19 mm
13X 42200A	.	.	.	.	.	0.0203	.	.	.	.	0.0052	.	.	Disc ~38 mm Ø x ~15 mm
BS 422	0.0041	(0.0002)	0.0031	84.5	(0.0009)	0.045	0.0030	(0.00005)	(0.0007)	.	0.0043	(0.0001)	(0.001)	Disc 38 mm Ø x ~7, 19, or 50 mm
BS 422A	0.0031	0.0004	0.0012	84.0	H:0.00010	(0.009)	0.0023	.	0.0008	.	0.0039	.	0.0011	Disc 38 mm Ø x ~7 or 19+ mm
BS 97	.	.	.	.	.	0.007	.	.	.	.	(0.003)	.	.	Disc 35 mm Ø x ~7 or 19+ mm
IARM Fe422-22	0.0039	0.0006	0.0029	Rem	.	0.013	0.0073	(0.0017)	0.0009	.	0.0035	.	(0.0017)	Disc 38 mm Ø x 3 or 19 mm
BS 430	0.0037	(0.0004)	(0.0003)	81.7	(0.0002)	(0.007)	0.0075	(0.0006)	(0.001)	.	0.0084	(0.001)	.	Disc 44 mm Ø x ~7 or 19+ mm
BS 91E	.	.	0.0008	.	.	(0.004)	.	.	.	.	0.004	.	.	Disc 41 mm Ø x ~7 mm
IARM 11D	(0.005)	0.0006	(0.002)	.	(0.0003)	0.009	(0.004)	(0.0005)	.	(0.001)	0.006	(0.003)	(0.001)	Disc 31 mm Ø x 2 or 18 mm
NCS HS20742	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 35 mm Ø x 40 mm
BS 431	0.0038	0.0003	0.0007	80.2	(0.0002)	0.034	0.0059	.	0.0011	.	0.0134	.	(0.001)	Disc 38 mm Ø x ~7 or 19+ mm
BS 431A	0.0033	0.0002	(0.0003)	80.5	(0.0002)	0.0062	0.0067	(0.0003)	0.0012	.	0.0047	.	0.0012	Disc 38 mm Ø x ~7 or 19+ mm
BS 92B	.	(0.0002)	(0.0009)	.	.	(0.006)	0.0064	.	.	.	0.006	.	.	Disc 44 mm Ø x ~7 mm
HRT FE2010-H	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 35 mm Ø x 20 mm
IARM 12C	(0.004)	0.0004	0.0007	.	(0.0002)	0.020	(0.005)	(0.0005)	.	.	0.008	(0.0005)	(0.001)	Disc 31 mm Ø x 2 or 18 mm
SRM 1219	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 34 mm Ø x 19 mm
13X 44004B	.	.	.	.	.	0.008	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
BS 93E	.	.	.	.	.	0.005	0.0040	.	.	.	0.003	.	.	Disc 41 mm Ø x ~7 mm
BS 93F	0.0056	(0.0001)	0.0019	[80.2]	(0.0006)	0.0029	0.0031	(0.0002)	0.0016	.	0.0059	.	(0.001)	Disc 38 mm Ø x ~7 or 19+ mm
IARM 13D	(0.008)	0.0005	(0.0007)	.	.	0.0074	0.0031	.	(0.0027)	.	0.011	(0.004)	(0.0017)	Disc 31 mm Ø x 2 or 18 mm
BS 156	.	.	.	.	.	0.005	0.0045	.	.	0.142	(0.004)	.	.	Disc 41 mm Ø x ~7 or 19+ mm
IARM 353A	(0.004)	(0.0006)	(0.0003)	.	.	(0.011)	(0.005)	(0.002)	.	0.17	0.0056	(0.004)	(0.002)	Disc 31 mm Ø x 2 or 18 mm
BS 94C	.	(0.0005)	0.0008	.	.	0.032	0.0061	.	.	.	0.006	.	.	Disc 44 mm Ø x ~7 or 19+ mm
IARM 14C	(0.003)	0.0005	(0.001)	.	(0.0005)	0.013	(0.006)	(0.0001)	(0.002)	(0.0001)	0.004	(0.002)	(0.001)	Disc 31 mm Ø x 2 or 18 mm
BS 95A	.	0.0010	0.0008	.	.	0.55	.	.	.	.	0.008	.	.	Disc 38 mm Ø x ~7 or 19+ mm
BS 9811	(0.003)	(0.0003)	0.0014	.	.	0.62	(0.0060)	.	.	.	0.004	.	.	Disc 38 mm Ø x ~7 or 19+ mm
BS 9812	(0.005)	(0.0003)	0.0012	.	.	0.645	(0.007)	.	.	.	0.004	.	.	Disc 50 mm Ø x ~7 or 19+ mm
CT 450	.	.	.	.	.	0.67	0.001	.	.	.	0.008	.	.	Disc 30-35 mm Ø x ~15-19 mm
IARM 15C	0.0044	(0.0006)	(0.0004)	.	.	0.63	(0.003)	(0.003)	(0.003)	(0.0003)	0.009	(0.004)	(0.003)	Disc 31 mm Ø x 2 or 18 mm
13X 45500A	.	.	.	.	.	0.250	.	.	.	.	0.0048	(0.0050)	.	Disc ~38 mm Ø x ~15 mm
BS 96A	.	(0.0017)	.	.	.	0.26	.	.	.	.	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm
BS SS1962	0.002	0.0018	.	.	.	0.27	(0.001)	.	.	.	0.004	.	.	Disc 38 mm Ø x ~7 or 19+ mm
CT 455	.	0.0024	.	.	.	0.28	.	<0.001	.	.	0.004	.	.	Disc 30-35 mm Ø x ~19 mm
IARM 16C	(0.003)	0.0011	.	.	.	0.248	0.0014	.	.	.	(0.003)	.	0.0010	Disc 31 mm Ø x 2 mm
IARM Fe455-22	0.0028	0.0011	.	.	.	0.25	0.0014	.	.	.	0.0049	.	.	Disc
13X 46500A	.	0.0016	.	.	.	0.005	.	.	.	.	0.0030	.	.	Disc ~32 mm Ø x ~20 mm
CT ISO123A	.	0.0021	.	74.72	.	<0.001	.	.	.	.	.	.	<0.002	Disc 44-47 mm Ø x ~16 mm
IARM 354A	(0.002)	0.0023	(0.0003)	.	(0.0001)	(0.02)	(0.0012)	(0.004)	(0.0002)	.	(0.002)	.	.	Disc 31 mm Ø x 2 or 18 mm
CT 630	.	0.0018	.	.	.	0.36	.	0.001	.	.	0.007	.	.	Disc 30-35 mm Ø x ~16 mm
IMZ 164	(0.005)	.	.	.	.	0.049	.	(0.002)	.	.	(0.003)	.	.	Disc 40 mm Ø x 40 mm
IARM 317A	(0.006)	0.0019	(0.0003)	.	.	(0.004)	0.0032	(0.001)	.	.	0.008	(0.004)	.	Disc 31 mm Ø x 2 or 18 mm

Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Se	Sn	Ta	Zr	Units
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STAINLESS STEEL ALLOYS

1 = CRM, 2 = RM, 3 = RM with no uncertainties

Alloy	ISO	#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	Ti	V	W
A-286	17025, 34	1	BS 188B	0.046	0.247	0.016	(0.0007)	0.266	0.120	24.81	14.32	0.168	0.274	1.30	0.0021	2.20	0.264	0.043
CA6NM		2	HRT FE2009-H	0.035	0.78	0.034	0.003	0.35	0.08	3.89	12.83	.	.	0.42	(0.0339)	.	0.043	0.058
CA6NM		1	IARM 327A	0.018	0.54	0.018	0.0010	0.43	0.082	3.83	12.73	(0.003)	0.019	0.53	0.0157	0.0026	0.036	0.009
CD6MN		1	VS LG58	0.48	0.99	0.0135	0.0280	0.292	0.388	4.26	23.4	.	.	2.41	.	0.039	0.264	0.21
CF-3		1	IRSID 1820	0.021	1.61	(0.021)	0.0079	0.428	0.045	9.07	19.51	.	0.151	0.115	0.064	.	.	.
CF3M	LAST 17034	1	ECRM 284-3D	0.0025	0.0615	0.0049	0.0066	0.0442	0.0105	12.09	17.37	.	0.0366	2.236	0.0418	0.0050	.	0.0039
ER321		1	13X 32180A	0.031	2.11	0.007	0.0093	0.485	0.49	10.16	18.92	0.043	0.040	0.245	0.0067	0.81	0.026	0.039
Greek Ascoloy		2	BS 183A	0.172	0.35	0.016	0.0040	0.37	0.093	1.85	12.14	0.002	0.036	0.12	0.0256	0.002	0.090	2.60
Greek Ascoloy		1	BS 183B	0.181	0.344	0.018	0.0042	0.41	0.074	1.96	12.45	0.0009	0.032	0.33	0.044	(0.0016)	0.165	3.5
Greek Ascoloy		1	BS 183C	0.173	0.368	0.015	0.0040	0.427	0.060	1.87	12.72	0.0020	0.027	0.189	0.039	(0.002)	0.109	2.83
Greek Ascoloy	17034	1	IARM 20C	0.18	0.30	0.018	0.007	0.35	0.060	1.93	12.15	(0.004)	0.031	0.12	0.0222	(0.003)	0.086	2.59
M-152		1	13X 64152A	0.114	0.666	0.0123	0.0020	0.224	0.0622	2.50	11.34	0.0315	0.0185	1.567	0.0339	.	0.275	.
M-152		1	IARM 291A	0.11	0.71	0.016	0.009	0.23	0.060	2.62	11.3	(0.004)	0.021	1.61	0.035	0.0011	0.29	(0.01)
RA330		2	BS 86F	0.054	1.30	0.021	0.0011	1.22	0.23	34.99	18.74	(0.007)	0.098	0.24	0.035	(0.006)	0.061	(0.03)
S32750		1	13X NSA13A	0.020	0.761	0.0249	0.0005	0.257	0.156	6.73	25.27	(0.007)	0.032	3.73	0.269	.	0.0712	0.035
S42027	Super Duplex	1	13X 42027A	0.294	0.356	0.0139	0.0005	0.544	0.035	0.163	15.25	0.004	0.0191	0.990	0.402	(0.002)	0.048	0.019
TL 2001D		1	TL 2001D	0.0244	0.679	0.022	0.0006	0.27	0.612	7.5	25.58	.	0.046	3.49	0.279	.	0.079	0.57
Z30C13		1	IRSID 1825	0.305	0.650	0.019	0.022	0.336	0.100	0.308	12.90	.	0.026	0.052	.	.	0.052	.
Zeron 100		1	IARM FeZ100-18	0.017	0.52	0.026	(0.0009)	0.24	0.55	7.1	25.5	(0.017)	0.123	3.61	0.22	.	0.090	0.56
Zeron 100		1	13X NSA8B	0.0206	0.596	0.0248	0.0007	0.285	0.589	7.48	25.49	.	0.0448	3.49	0.232	.	0.0583	0.599
Alloy	ISO	#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	Ti	V	W

Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Se	Sn	Ta	Zr	Units
BS 188B	0.0045	0.0047	(0.00003)	55.8	(0.0005)	0.099	0.0006	(0.0001)	(0.0006)	.	0.0051	(0.00003)	(0.002)	Disc 38 mm Ø x ~7 or 19+ mm
HRT FE2009-H	.	.	(0.001)	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm
IARM 327A	(0.004)	(0.001)	.	.	(0.0003)	0.008	0.0047	.	.	.	0.006	(0.004)	(0.002)	Disc 31 mm Ø x 2 or 18 mm
VS LG58	.	.	.	.	.	0.214	.	.	.	.	.	.	.	Disc ~47 mm Ø x ~30 mm
IRSID 1820	.	(0.0013)	.	.	.	.	.	.	.	.	.	.	.	Block 47 mm x 47 mm x 30 mm
ECRM 284-3D	0.00131	0.00020	.	.	.	.	.	.	.	.	0.00074	.	.	Disc 39 mm Ø x 28 mm
13X 32180A	(0.003)	(0.0011)	.	.	.	(0.0021)	.	.	(0.0011)	.	0.0116	.	.	Disc ~40 mm Ø x ~15 mm
BS 183A	(0.002)	(<0.0005)	0.0020	.	.	0.006	0.0065	.	(0.001)	.	0.003	.	.	Disc 38 mm Ø x ~10 to 19 mm
BS 183B	(0.005)	(0.0007)	(0.0003)	80.4	(0.0002)	(0.0075)	(0.0054)	(0.0003)	0.0009	.	0.0046	(0.004)	(0.0009)	Disc 38 mm Ø x ~7 or 19+ mm
BS 183C	0.0041	(0.0008)	0.0006	81.1	(0.0002)	0.0054	(0.005)	(0.0002)	0.0007	.	0.0039	(0.003)	(0.0005)	Disc 38 mm Ø x ~7 or 19+ mm
IARM 20C	.	.	.	.	.	0.010	0.0068	.	.	.	0.004	.	.	Disc 31 mm Ø x 2 mm
13X 64152A	.	.	.	.	.	.	.	.	.	.	0.0053	.	.	Disc ~38 mm Ø x ~15 mm
IARM 291A	.	0.001	.	.	.	0.022	0.014	.	.	.	0.004	(0.001)	<0.005	Disc 31 mm Ø x 2 or 18 mm
BS 86F	(0.003)	0.0026	(0.001)	.	.	0.19	.	(0.001)	.	.	0.004	.	.	Disc 44 mm Ø x ~7 or 19+ mm
13X NSA13A	.	0.0030	.	.	.	0.028	.	(0.0008)	.	.	0.0046	.	.	Disc ~40 mm Ø x ~15 mm
13X 42027A	.	.	.	.	.	0.004	.	.	.	.	0.0026	.	.	Disc ~40 mm Ø x ~15 mm
TL 2001D	.	.	.	.	.	0.024	.	.	.	.	.	.	.	Disc 40 mm Ø x 20 mm
IRSID 1825	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 30 mm
IARM FeZ100-18	.	0.002	.	.	.	(0.005)	(0.003)	.	.	.	(0.006)	.	.	Disc 31 mm Ø x 2 or 18 mm
13X NSA8B	.	0.0017	0.0011	.	.	0.026	.	.	.	.	.	.	.	Disc ~38 mm Ø x ~15 mm
Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Se	Sn	Ta	Zr	Units

HIGH ALLOY STEEL ALLOYS

1 = CRM, 2 = RM, 3 = RM with no uncertainties

Alloy	ISO	#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	Ti	V	W
20, 20Cb3, CN7M	LAST	2	CT 20 Cb-3	0.034	0.19	0.017	0.003	0.38	3.28	33.55	19.63	.	0.035	2.25	.	.	0.053	.
20, 20Cb3, CN7M		2	BS 187A	0.022	0.52	0.017	0.0025	0.26	3.10	33.06	19.75	(0.009)	0.32	2.06	0.0157	(0.002)	0.10	(0.02)
42		2	CT ISO138A	0.002	0.48	0.001	0.006	<0.010	<0.001	39.98	<0.001	0.002	0.64	<0.001	<0.001	0.34	0.090	.
42		2	CT ISO139A	0.021	1.00	0.001	0.0005	0.015	<0.001	41.69	0.004	.	0.066	<0.001	.	.	.	.
254 SMO	17034	1	BS 254	0.019	0.95	0.026	0.0009	0.312	0.612	18.47	20.2	<0.01	0.08	6.07	0.210	0.0019	0.062	(0.02)
254 SMO		1	IARM Fe254SMO-21	0.017	0.892	0.022	0.0010	0.301	0.77	18.1	19.7	0.022	0.118	6.09	0.200	0.004	0.052	0.041
254 SMO		1	NILAB 501HA D	0.014	0.858	0.020	0.003	.	0.761	17.69	19.79	0.003	0.159	6.14	0.2243	.	0.044	.
904 L		1	ECRM 295-1D	0.0166	1.758	0.0167	0.0004	0.418	1.481	24.40	19.51	0.0203	0.0450	3.996	0.0615	.	0.0453	.
904 L	17034	1	IARM Fe904L-22	0.0133	1.14	0.020	0.0007	0.654	1.30	24.0	19.3	0.036	0.126	4.03	0.045	0.0020	0.108	0.024
A-286		1	IARM 26D	0.038	0.224	0.013	(0.0008)	(0.05)	0.047	24.6	14.29	0.29	0.040	1.23	0.0035	2.17	0.223	0.036
A-286		1	SRM 1230	0.044	0.64	0.023	0.0007	0.43	0.14	24.2	14.8	0.24	0.15	1.18	.	2.12	0.23	.
Aermet 100		2	CT ISO045A	0.228	0.002	0.001	0.0004	<0.010	0.006	11.38	3.12	0.004	13.39	1.18	.	0.005	.	.
Aermet 100	17034	1	IARM 242A	0.24	0.018	0.002	0.0004	0.02	0.007	11.1	3.00	0.004	13.5	1.21	0.0003	0.009	0.01	<0.01
Aermet 100		1	IARM FeA100-18	0.222	(0.013)	(0.004)	(0.001)	(0.039)	(0.010)	11.2	2.98	(0.007)	13.4	1.19	(0.0010)	(0.008)	(0.007)	(0.006)
AL6XN, CN3MN	17025, 34	1	13X NSA11A	0.0159	0.640	0.0186	<0.001	0.275	0.187	23.89	20.18	(0.021)	0.0981	6.16	0.203	.	0.0513	0.038
AL6XN, CN3MN		1	BS 189A	0.0147	0.639	0.019	(0.001)	0.30	0.184	23.8	20.4	0.0129	0.100	6.04	0.198	0.0065	0.054	0.037
AL6XN, CN3MN		1	IARM 157D	0.0154	0.626	0.016	0.0005	0.28	0.196	23.9	20.31	0.020	0.102	6.08	0.203	0.009	0.050	0.036
CD3MN		1	ECRM 298-2D	0.0140	0.788	0.0210	0.0006	0.331	0.105	6.87	24.91	0.0148	0.0482	3.78	0.277	0.0023	0.070	0.0094
CD4MCU	17034	1	BS CD4MCU	0.045	0.568	0.025	0.021	0.71	2.93	5.62	24.46	0.0063	(0.03)	1.98	0.229	0.021	0.108	0.024
CD4MCU		1	BS CD4MCU-A	0.021	0.38	(0.008)	0.0072	0.31	2.92	5.18	24.6	(0.009)	(0.005)	1.92	0.0112	0.021	(0.006)	(0.009)
CN7M		1	VS LG64	0.049	0.75	0.017	0.0032	0.76	2.88	28.3	24.7	0.189	.	2.89	.	0.64	0.094	0.013
High Perm		2	CT ISO124A	0.011	0.73	0.007	0.006	0.40	0.015	48.07	0.079	.	0.012	0.009	.	.	<0.001	.
High Perm	17034	2	CT ISO136A	0.018	0.44	0.001	<0.001	0.198	<0.001	44.92	0.002	.	0.009	<0.001	.	.	.	.
High Perm 49		2	CT ISO141A	0.0199	0.31	0.001	<0.001	0.28	<0.001	47.16	<0.001	0.001	0.030	<0.001	<0.001	0.014	0.024	.
Invar 36	17034	1	14X 93603A	0.0101	0.339	0.0050	0.0045	0.153	0.0460	35.79	0.024	0.0404	0.0974	0.0145	0.0057	0.0011	.	.
Invar 36		1	BS 186B	0.022	0.288	(0.0027)	0.0016	0.254	0.057	36.1	0.11	0.0080	0.041	0.025	0.0033	0.0028	(0.002)	(0.007)
Invar 36 + Se		2	BS 186A	0.040	0.72	0.008	0.0053	0.19	0.016	35.86	0.16	(0.001)	0.028	0.0032	0.0026	(0.003)	0.0012	(0.01)
Invar 36 + Se		1	IARM 24B	0.053	0.82	0.009	0.0010	0.28	0.052	35.86	0.121	0.002	0.036	0.011	0.0017	0.002	<0.005	<0.04
Invar 36 + Se	17025, 34, LAST	1	IARM FeINVR36-22	0.0497	0.78	0.0041	0.0019	0.307	0.058	36.0	0.094	0.0023	0.010	0.012	0.0021	(0.0020)	0.0013	(0.0328)
Invar 42		1	14X 94100A	0.0055	0.443	0.0051	0.0027	0.103	0.0628	41.00	0.0265	.	0.0208	0.0053	0.0016	0.0011	.	0.0017
Kovar		1	BS 160A	0.0064	0.180	0.0007	(0.0002)	0.158	0.026	29.6	0.0138	0.088	17.0	0.0100	0.0026	0.026	0.0008	(0.0001)
Kovar		1	BS 160B	0.022	0.27	0.0033	0.0032	0.112	0.059	29.13	0.06	(0.005)	17.24	0.047	0.0006	(0.003)	0.0039	(0.011)
Kovar	17034	1	IARM 98B	0.007	0.18	0.002	0.0007	0.17	0.028	29.4	0.012	0.07	17.0	0.010	0.0024	0.03	(0.003)	(0.02)
Kovar		1	IARM FeKovar-18	0.024	0.26	(0.004)	(0.0055)	(0.09)	0.077	29.0	0.068	.	17.3	0.062	.	.	.	(0.020)

Alloy	ISO	#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	Ti	V	W
Number	As	B	Ca	Ce	Fe	Mg	Nb	O	Pb	Sb	Se	Sn	Ta	Zn	Zr	Units		
CT 20 Cb-3	.	0.0023	.	.	.	.	0.86	.	0.002	.	.	0.003	.	.	.	Disc	30-35 mm	Ø x ~19 mm
BS 187A	.	0.0022	.	(0.025)	.	.	0.57	0.0029	.	.	.	0.003	<0.002	.	.	Disc	41 mm	Ø x ~7 mm
CT ISO138A	.	.	.	.	58.53	.	.	.	.	.	.	.	.	.	.	Disc	30-35 mm	Ø x ~16 mm
CT ISO139A	.	.	.	.	57.10	.	.	.	.	.	.	.	.	.	.	Disc	30-35 mm	Ø x ~16 mm
BS 254	(0.006)	0.0018	(0.0003)	.	52.9	(0.0002)	(0.03)	0.0038	<0.01	0.0014	.	0.0063	<0.01	.	0.0026	Disc	38 mm	Ø x ~7 or 19+ mm
IARM Fe254SMO-21	0.0044	0.0009	0.0024	.	53.7	.	(0.0083)	0.0025	.	0.0017	.	0.0041	(0.0046)	.	(0.0017)	Disc	38 mm	Ø x 3 or 19 mm
NILAB 501HA D	.	.	.	.	.	.	0.007	.	.	.	.	.	.	.	.	Disc	38 mm	Ø x 20 mm
ECRM 295-1D	0.0041	0.0018	.	.	48.36	(0.0003)	.	.	0.0007	.	.	0.0025	.	.	.	Disc	38 mm	Ø x 25 mm
IARM Fe904L-22	0.0044	(0.0005)	0.0041	.	49.0	0.0009	0.017	0.0018	(0.0004)	0.0018	.	0.0051	(0.0031)	.	(0.0024)	Disc	40 mm	Ø x 3 or 19 mm
IARM 26D	.	0.0063	.	.	.	.	(0.007)	.	.	.	.	0.0039	.	.	.	Disc	31 mm	Ø x 2 or 18 mm
SRM 1230	.	0.0055	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc	32 mm	Ø x 19 mm
CT ISO045A	.	.	.	.	70.70	.	.	.	.	.	.	.	.	.	.	Disc	30-35 mm	Ø x ~19 mm
IARM 242A	.	(0.0005)	.	.	.	.	0.004	0.0006	.	.	.	(0.001)	0.008	.	.	Disc	31 mm	Ø x 2 mm
IARM FeA100-18	.	.	.	.	.	.	(0.003)	(0.0009)	.	.	.	.	.	.	.	Disc	31 mm	Ø x 2 or 18 mm
13X NSA11A	.	.	.	.	.	.	0.150	.	.	.	.	.	.	.	.	Disc	~38 mm	Ø x ~15 mm
BS 189A	0.0039	(0.0002)	(0.0004)	.	[48.1]	.	(0.13)	0.0024	.	.	.	0.0035	.	.	(0.001)	Disc	38 mm	Ø x ~7 or 19+ mm
IARM 157D	.	0.0007	.	.	48.0	.	0.149	.	.	.	.	0.0036	.	.	.	Disc	31 mm	Ø x 2 or 18 mm
ECRM 298-2D	0.0028	0.0024	.	.	.	.	0.0011	.	0.0006	.	.	0.0029	.	.	.	Disc	38 mm	Ø x 25 mm
BS CD4MCU	0.0040	0.0028	(0.001)	.	63.2	(0.0003)	(0.004)	0.019	(0.0009)	.	.	(0.03)	.	(0.01)	(0.002)	Disc	36 mm	Ø x 26 mm
BS CD4MCU-A	0.0022	(0.0008)	(0.001)	.	64.5	(0.0003)	(0.009)	0.0061	(0.002)	(0.0007)	.	0.0024	.	.	(0.002)	Disc	44 mm	Ø x 19+ mm
VS LG64	.	.	.	.	.	.	0.048	.	.	.	.	.	.	.	.	Disc	~47 mm	Ø x ~30 mm
CT ISO124A	.	.	.	.	50.65	.	.	.	.	0.167	.	.	.	.	.	Disc	44-47 mm	Ø x ~11 or ~19 mm
CT ISO136A	.	.	.	.	54.27	.	.	.	.	.	.	.	.	.	.	Disc	30-35 mm	Ø x ~16 mm
CT ISO141A	.	.	.	.	52.12	0.0002	.	.	.	.	.	.	.	.	.	Disc	30-35 mm	Ø x ~16 mm
14X 93603A	.	.	.	.	.	0.0019	.	.	.	.	.	.	.	.	(0.0009)	Disc	~40 mm	Ø x ~15 mm
BS 186B	0.0022	(0.0006)	(0.0007)	.	63.0	(0.0004)	(0.002)	0.0011	(0.003)	(0.0007)	.	0.0025	(0.005)	.	0.0020	Disc	43 mm	Ø x ~7 or 19+ mm
BS 186A	.	.	.	.	.	.	<(0.002)	.	.	.	0.229	(0.002)	.	.	.	Disc	38 mm	Ø x ~7, ~12, or 19 mm
IARM 24B	<0.005	(0.001)	.	.	62.6	.	<0.01	0.003	.	0.19	0.0018	<0.005	.	<0.005	.	Disc	31 mm	Ø x 2 mm
IARM FeINVR36-22	0.0029	0.0019	.	.	Rem	.	(0.0016)	(0.0042)	(0.0016)	(0.0006)	0.21	0.0042	(0.0023)	.	(0.0015)	Disc	38 mm	Ø x 3 or 19 mm
14X 94100A	.	.	.	.	.	0.0021	(0.01)	.	.	.	.	.	.	.	.	Disc	~40 mm	Ø x ~15 mm
BS 160A	0.0011	0.0010	(0.0004)	.	52.9	0.0032	0.0014	0.0022	(0.00006)	(0.0004)	.	0.0024	(0.0001)	.	0.0048	Disc	38 mm	Ø x 19 mm
BS 160B	<0.005	0.0003	0.0004	.	53.0	<0.005	0.0015	0.0010	<0.005	(0.0009)	.	0.0020	<0.005	.	(0.0027)	Disc	38 mm	Ø x ~7 or 19+ mm
IARM 98B	<0.002	0.001	<0.0005	.	52.9	0.0040	0.002	0.0021	<0.0005	.	.	0.002	<0.05	<0.0005	<0.01	Disc	31 mm	Ø x 2 mm
IARM FeKovar-18	.	.	.	.	53.3	.	.	.	.	.	.	0.0021	.	.	.	Disc	31 mm	Ø x 2 or 18 mm

Number	As	B	Ca	Ce	Fe	Mg	Nb	O	Pb	Sb	Se	Sn	Ta	Zn	Zr	Units		
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PURE IRON

= class, where 1 = CRM and 2 = RM

T = total

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Co	N	O
1	SRM 1265a	0.0067	0.0057	0.0011	0.0055	0.008	0.0058	0.041	0.007	0.0050	(0.0007)	0.007	.	.
1	DSZU C01a	0.0046	0.0012	0.0011	0.0049	0.0035	0.0063	0.0038	0.0034	0.0003	0.0054	(0.0005)	(0.03)	(0.01)
2	CZ LA-0A	(0.006)	0.045	0.005	0.005	0.0015	0.012	0.028	0.022	(0.0044)	0.0015	0.002	0.0023	.
2	CZ LA-0B	(0.003)	0.038	0.0037	0.0023	(0.0043)	0.0074	0.0070	0.009	(0.0016)	(0.0010)	(0.0017)	0.0027	.
1	IARM 27G	(0.003)	(0.003)	(0.003)	0.0011	(0.07)	0.040	0.045	0.043	(0.002)	(0.0013)	(0.0009)	(0.0003)	0.025
1	BS LC-7A	0.0025	0.023	0.013	0.0030	0.0056	0.0038	0.0058	0.0074	0.0034	0.0194	0.0017	0.0043	(0.005)
1	BS 50G	0.0023	0.010	0.0088	0.0033	0.009	0.007	0.0045	0.008	(0.001)	0.008	0.0011	0.0019	0.0030
2	TL 1669 *	0.00226	0.0955	0.0137	0.0100	0.0093	0.0217	0.0160	0.0246	0.0011	0.03553T	0.0019	0.0024	.
1	ECRM 098-1D	0.00051	0.00008	(0.00006)	0.00031	0.00048	.	.	0.00571	0.00085	.	.	0.00024	.
1	ECRM 097-2D	.	0.012	0.00538	0.00181	0.00285	0.00793	0.0241	0.0213	0.00370	.	0.0139	0.00294	.

Number	As	B	Mg	Nb	Pb	Sn	Ti	V	W	Units
SRM 1265a	(0.0002)	0.00013	.	.	0.00001	.	(0.0001)	0.0006	.	disc 32 mm Ø x 19 mm
DSZU C01a	(0.0002)	(0.0002)	.	(0.0006)	(0.0003)	0.0003	(0.0001)	(0.0007)	0.0008	disc ~39 mm Ø x 30 mm Fe: 99.92
CZ LA-0A	(0.0015)	.	Sb:(0.0007)	(0.001)	(0.001)	(0.001)	0.001	.	.	disc ~37 mm Ø x 25 mm
CZ LA-0B	0.0024	.	.	.	(0.0013)	.	.	.	.	disc ~39 mm Ø x ~25 mm
IARM 27G	(0.0016)	(0.0006)	(0.0002)	(0.002)	(0.002)	(0.001)	<0.005	(0.001)	<0.005	disc 31 mm Ø X 2 or 18 mm
BS LC-7A	0.0024	(0.0001)	(0.0001)	(0.0005)	(0.0004)	(0.0007)	0.0004	(0.0004)	(0.0005)	disc 38 mm Ø x 38 mm 17025, 17034
BS 50G	0.0034	(0.0001)	(0.0002)	(0.0004)	(0.00007)	Sb:0.0005	(0.003)	(0.0003)	.	disc 38 mm Ø x 38 mm 17025, 17034
TL 1669 *	0.0017	0.00038	.	0.00046	0.00013	0.0071	0.0504	(0.0006)	.	disc 38 mm Ø x 25 mm
ECRM 098-1D	.	.	.	.	.	.	.	.	.	octagon 35 mm Ø x 25 mm
ECRM 097-2D	0.00281	0.00012	Sb:0.00012	Ta:0.00015	Zn:0.00014	0.00043	.	0.00011	0.00386	disc 38 mm Ø x 25 or 30 mm
* TL-1669 also contains in ppm Ca: 1.7, Sb: 4.9, Zn: 2.7										

RM CARBON STEEL XRF SET

Part Number: BS CS-10 AVAILABLE INDIVIDUALLY **17025, 17034** ~7 mm discs

Grade	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	As	Co	N	Sn	V
Pure Iron	BS 50F	0.0064	0.082	0.0066	0.0031	0.016	0.0088	0.016	0.022	0.0017	0.003	0.0013	0.0023	0.0042	0.0010	(0.0003)
1018	BS 1018	0.195	0.79	0.012	0.024	0.237	0.130	0.104	0.177	0.044	0.029	0.0041	0.0058	0.0079	0.0099	0.0009
1020	BS 57F	0.196	0.554	0.009	0.027	0.202	0.197	0.070	0.120	0.018	(0.002)	(0.006)	0.007	0.0077	0.008	0.063
1026	BS 4932	0.234	0.76	0.010	0.015	0.25	0.15	0.080	0.144	0.033	(0.001)	(0.005)	0.005	0.0080	0.008	0.060
1035	BS 4931	0.352	0.80	0.011	0.016	0.27	0.217	0.070	0.093	0.024	(0.001)	0.005	0.006	0.0080	0.009	0.058
1040	BS 1040	0.402	0.79	0.010	0.032	0.229	0.241	0.067	0.123	0.021	(0.0019)	(0.006)	0.0069	0.0111	0.009	0.030
1045	BS 56E	0.483	0.72	0.010	0.025	0.24	0.015	0.015	0.021	0.005	0.062	0.0035	0.005	0.0056	(0.0006)	(<0.002)
1095	BS 64C	0.920	0.22	0.015	0.0024	0.22	0.016	0.038	0.261	0.008	(0.005)	.	0.004	0.0084	(0.001)	0.005
1522 (LF2)	BS 2932	0.208	1.20	0.008	0.020	0.186	0.060	0.034	0.077	0.026	0.022	(0.003)	0.004	0.0080	0.005	0.001
1345	BS XCCV	0.44	1.75	0.012	0.024	0.28	0.015	0.019	0.041	0.007	0.033	0.0023	0.006	0.0056	(0.0004)	(<0.003)

CRM CARBON STEEL SET

AVAILABLE IN SET/6 ONLY

38 mm Ø x 30 mm

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Al.Sol	Ti	Ti.Sol	V
NCS HS11719-5	1.19	2.20	0.011	0.013	0.751	0.046	0.164	0.439	0.036	0.034	0.029	0.028	0.0082
NCS HS11719-1	0.963	0.586	0.022	0.010	0.241	0.111	0.206	0.131	0.019	0.017	0.016	0.015	0.035
NCS HS11719-3	0.435	1.14	0.045	0.020	0.163	0.160	0.114	0.086	0.019	0.016	0.024	0.023	0.099
NCS HS11719-4	0.140	1.30	0.084	0.020	0.526	0.276	0.344	0.198	0.160	0.155	0.132	0.128	0.153
NCS HS11719-2	0.042	0.048	0.105	0.0053	0.154	0.411	0.432	0.247	0.296	0.292	0.161	0.154	0.207
NCS HS11719-6	0.0060	0.163	0.0053	0.035	0.014	0.0032	0.013	0.021	0.0021	0.0016	0.0010	(0.0008)	0.363

CRM SOLUBLE ALUMINUM AND SOLUBLE BORON STEEL SET

available in set/6 only as grouped .T = total .S = soluble

37 mm Ø x 30 mm

Number	Al.T	Al.S	B.T	B.S	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo
NCS HS93703-1a	0.59	0.58	0.036	0.034	1.04	2.10	0.023	0.030	0.650	0.033	0.063	4.05	0.0088	0.0040
NCS HS93703-2	0.92	0.91	0.0083	0.0080	0.055	0.021	0.027	0.0033	0.827	0.422	1.09	3.09	0.262	1.56
NCS HS93703-3	0.107	0.103	0.0041	0.0037	0.792	1.34	0.013	0.038	1.09	0.532	0.533	2.11	0.488	0.397
NCS HS93703-4	0.083	0.078	0.0050	0.0048	0.475	0.612	0.015	0.015	2.57	0.687	2.01	1.31	0.403	0.977
NCS HS93703-5	(1.29)	(1.27)	0.0017	0.0015	0.651	1.53	0.036	0.0052	0.024	0.236	2.98	0.021	0.094	0.631
NCS HS93703-6	0.64	0.63	0.0033	0.0030	0.246	0.211	0.045	0.0058	0.274	0.092	3.83	0.505	0.145	0.203

Number	As	Bi	Ca	Nb	Pb	Sb	Sn	Ti	V	W	Zr
NCS HS93703-1a	0.034	0.0013	(0.0001)	0.300	(0.0001)	(0.0004)	0.0035	0.069	0.021	0.313	(0.0005)
NCS HS93703-2	0.0034	0.0006	0.0010	0.254	0.0008	0.0020	0.0069	0.346	0.376	1.97	0.087
NCS HS93703-3	0.0019	0.0004	0.0010	0.506	0.0007	0.0040	0.054	0.016	0.071	0.755	0.014
NCS HS93703-4	0.056	(0.0002)	(0.0001)	0.167	0.0006	0.0095	0.012	0.035	0.709	1.48	0.069
NCS HS93703-5	0.0064	0.0015	0.0007	0.0057	0.0007	0.010	0.015	0.111	0.231	0.050	0.41
NCS HS93703-6	0.011	(0.0002)	(0.0001)	0.070	0.0011	0.0006	0.017	0.246	0.526	1.04	0.22

CARBON STEEL						CONTINUED ON THE NEXT PAGE					# = Class, where 1 = CRM and 2 = RM					
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	B	Ca	Co	Mo
1	IRSID 1660	1.20	0.280	0.014	0.010	0.173	0.059	0.072	(0.026)	(0.009)	.	.	.	.	.	.
1	ECRM 090-1D	1.05	0.226	0.013	0.0095	0.201	0.006	0.053	0.121	.	.	.	.	.	0.003	0.009
1	SRM 1227	0.97	0.402	0.014	0.026	0.215	0.006	0.007	0.019	0.096	.	.	.	.	(0.007)	(0.003)
1	SS 602/2	0.94	0.166	0.011	0.031	0.22	0.016	0.038	0.261	(0.005)	.	.	.	.	0.004	0.008
2	BS 64C	0.920	0.22	0.015	0.0024	0.22	0.016	0.038	0.261	(0.005)	.	.	.	.	.	0.01
2	HRT FE2014-N	0.91	1.97	0.012	(0.004)	0.24	0.01	0.02	0.35	0.016	.	.	.	.	.	.
1	VS UG128	0.816	0.405	0.014	0.0139	0.324	0.0235	0.032	0.038	0.0078	.	.	.	.	.	.
1	ECRM 056-2D	0.8181	0.5073	0.0103	0.0093	0.2006	0.0129	0.0218	0.0146	.	0.00024	.	.	.	.	.
1	BS 54J	0.78	0.77	0.0090	0.0108	0.552	0.080	0.037	0.177	0.0021	.	0.0025	<0.0005	.	0.0042	0.0138
1	SRM 1224	0.75	0.41	0.009	0.039	0.173	0.072	0.054	0.071	0.060	.	.	.	.	.	0.013
1	VS UG129	0.728	0.84	0.031	0.013	1.161	0.050	0.154	0.135	0.0014	.	.	.	.	.	.
1	VS RG28	0.70	0.84	0.031	.	1.161	0.050	0.154	0.135	0.066	.	.	.	.	.	0.090
1	VS RG28/1	0.68	0.91	0.031	0.0071	2.36	0.040	0.168	0.194	0.068	.	.	.	.	0.072	0.104
1	IARM 373A	0.63	0.70	0.0123	0.031	0.22	0.107	0.048	0.096	0.002	.	0.0046	0.0003	0.0005	0.005	0.0176
1	VS UG20/6	0.58	0.473	(0.008)	(0.02)	0.229	0.249	0.360	0.396	.	.	.	.	.	.	.
1	NM 309	0.57	0.80	0.037	0.046	0.20	.	0.178	0.081	0.113	.	.	.	.	.	.
1	SS 435/1	0.52	0.73	0.033	0.031	0.22	0.223	0.179	0.060	0.141	.	.	.	.	.	.
1	IARM Fe1050-18	0.499	0.79	0.0045	0.027	0.223	0.179	0.068	0.100	(0.003)	.	(0.0030)	(0.0005)	.	0.0056	0.018
1	SS 435/2	0.489	0.390	0.037	0.042	0.328	0.015	0.133	0.184	0.062	.	0.0035	.	(0.0005)	0.011	0.005
1	BS 56E	0.483	0.72	0.010	0.025	0.24	0.015	0.092	0.021	(0.007)	.	.	.	.	0.005	0.005
1	IRSID 1636	0.47	0.73	0.019	0.037	0.24	0.015	0.092	(0.060)	(0.015)	(0.013)	.	.	.	.	.
1	SS 459/2	0.467	0.909	0.0482	0.0481	0.640	0.015	0.092	0.021	(0.007)	.	.	.	0.0110	0.0890	.
1	BS 1045	0.458	0.796	0.0069	0.023	0.215	0.190	0.060	0.108	(0.001)	.	0.0050	(0.0003)	0.0013	0.0056	0.0170
1	IARM 200D	0.453	0.749	0.0103	0.024	0.225	0.232	0.097	0.109	(0.004)	.	0.0050	.	.	0.007	0.0217
1	VS UG123	0.45	0.552	0.016	0.026	0.216	0.196	0.084	0.111	0.024	.	.	.	.	.	.
1	IRSID 1657	0.445	0.724	0.028	(0.013)	0.274	.	0.048	(0.022)	0.004	.	0.0051	.	.	.	(0.008)
1	NM 306	0.44	0.80	0.043	0.042	0.34	0.408	0.165	0.26	0.170	(0.004)	.	.	.	.	(0.028)
1	IRSID 1648	0.432	1.41	0.031	(0.070)	0.242	0.408	0.165	0.170	(0.004)	.	(0.038)	.	.	.	.
1	NM EN-8	0.42	0.82	0.02	0.02	0.21	0.097	0.068	(0.035)	(0.020)	.	(0.042)	.	.	.	(0.009)
1	IRSID 1642	0.418	0.929	0.031	(0.031)	0.388	0.097	0.068	(0.035)	(0.020)	.	(0.042)	.	.	.	.
1	IRSID 1647	0.418	0.701	0.019	(0.027)	0.299	(0.104)	0.093	0.490	(0.060)	(0.0555)	.	.	.	.	.
1	IARM 210D	0.412	0.73	0.0052	0.030	0.230	0.273	0.122	0.096	(0.002)	.	0.0059	0.0004	0.0009	0.007	0.034
1	IARM 349A	0.41	1.49	0.011	0.025	0.192	0.300	0.178	0.189	0.0020	.	0.005	0.0003	0.0015	0.0085	0.034
1	IRSID 1652	0.406	0.31	(0.017)	0.040	0.386	0.345	0.190	0.184	(0.0013)	(0.0013)	0.038	.	.	.	(0.042)
1	BS 1040	0.402	0.79	0.010	0.032	0.229	0.241	0.067	0.123	(0.0019)	.	(0.006)	0.0003	0.0011	0.0069	0.021
1	IRSID 1637	0.401	0.940	0.030	0.030	0.378	0.097	0.068	(0.033)	0.022	.	0.042	.	.	.	(0.006)
1	VS UG131	0.39	0.56	0.0100	0.0031	0.207	0.030	0.026	0.853	.	.	.	.	.	.	.
1	SS 605/2	0.400	0.345	0.054	0.015	0.54	(0.06)	(0.05)	(0.06)	0.027	.	.	.	.	(0.008)	(0.01)
1	IRSID 1644	0.394	0.594	0.021	0.031	0.287	0.265	0.158	0.138	(0.017)	.	.	.	.	.	.
1	ECRM 084-1D	0.391	0.860	.	0.029	0.265	0.267	0.154	.	.	.	.	.	.	.	0.033
1	IRSID 1649	0.384	0.930	0.045	(0.047)	0.250	0.418	0.226	0.321	0.004	.	0.037	.	.	.	0.043
1	SS 460/2	0.383	0.616	0.0374	0.0099	0.126	.	.	0.024	(0.019)	.	.	0.0027	.	0.0106	.
1	VS RG30	0.38	0.357	.	0.013	0.45	0.161	0.62	3.06	.	.	.	.	.	0.50	0.62
1	BS 1035	0.362	0.758	0.0100	0.028	0.246	0.241	0.123	0.151	0.0008	.	0.0051	(0.0002)	0.0017	0.0073	0.049
1	IRSID 1655	0.355	1.018	(0.018)	(0.060)	0.443	0.415	0.188	0.157	(0.004)	.	(0.036)	.	.	.	(0.043)
1	IRSID 1663	0.353	0.967	0.030	0.034	0.235	0.180	0.148	0.205	0.037	.	(0.005)	(0.0003)	.	.	0.042
1	BS 1030A	0.34	0.286	0.0059	0.016	0.28	0.189	0.141	0.112	0.0021	.	(0.005)	(0.0003)	.	0.0061	0.029
1	VS UG90	0.34	0.286	0.0079	0.012	0.221	0.200	0.265	0.261	0.037	0.032	0.0044	.	.	.	0.046
1	VS UG19/6	0.34	0.274	(0.03)	(0.03)	0.136	0.148	0.262	0.227	.	.	.	.	.	.	.
1	IARM 360A	0.331	0.703	0.018	0.023	0.260	0.235	0.078	0.113	0.0016	.	0.0060	0.0004	0.0017	0.0067	0.024
1	BS 1030	0.331	0.682	0.0101	0.0299	0.261	0.269	0.078	0.124	0.0014	.	0.0055	0.0003	0.0012	0.0069	0.0182
1	SS 4527/1	0.323	1.30	0.035	0.017	0.055	0.22	0.19	0.067	.	.	0.015	.	.	.	0.054
1	IARM 209D	0.322	0.68	0.0084	0.021	0.268	0.243	0.079	0.137	(0.003)	.	0.0060	0.0002	0.002	0.007	0.037
1	IRSID 1653	0.312	0.962	0.034	(0.039)	0.400	0.453	0.218	0.358	<0.004	.	(0.039)	.	.	.	(0.038)
1	VS RG27	0.30	0.91	0.054	0.0032	0.42	0.188	0.135	1.53	0.88	.	.	.	.	0.071	0.222
1	VS UG121	(0.3)	0.55	0.014	0.027	0.244	0.180	0.078	0.126	0.023	.	.	.	.	.	.
1	SS 434/2	0.275	1.54	0.061	0.0141	0.51	0.037	0.328	.	.	.	.	.	.	.	.
1	IRSID 1654	0.270	0.979	0.036	(0.047)	0.354	0.441	0.241	0.328	.	.	0.040	.	.	.	(0.043)
1	BS 1026A	0.270	0.76	0.0064	0.021	0.180	0.094	0.081	0.123	0.0091	.	(0.005)	(0.0003)	0.0025	(0.005)	0.053
1	IARM 359A	0.267	0.686	0.0094	0.020	0.233	0.186	0.068	0.121	0.002	.	0.0073	0.0003	0.0013	0.0069	0.023
1	VS UG94	0.26	0.186	0.0037	0.0026	0.101	0.088	0.178	0.206	0.017	.	.	.	.	.	0.0005
1	VS UG18/6	0.242	0.213	(0.003)	(0.003)	0.20	0.063	0.273	0.237	0.033	.	.	.	.	.	.
2	HRT FE2016-N	0.23	0.85	0.015	0.011	0.32	0.15	0.102	0.15	0.033	.	.	.	.	.	.
1	IARM Fe1020-18	0.226	0.547	0.006	0.024	0.235	0.198	0.078	0.125	(0.003)	.	0.0044	.	.	0.0065	0.0252
1	BS 1020B *	0.22	0.59	0.014	0.023	0.23	0.16	0.060	0.12	0.002	.	<0.05	0.0002	0.001	0.006	0.018
1	BS 1020A *	0.22	0.58	0.014	0.023	0.23	0.16	0.060	0.12	0.002	.	<0.05	0.0002	0.001	0.006	0.018
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	B	Ca	Co	

CARBON STEEL													CONTINUED FROM THE PREVIOUS PAGE														
Number	N	Nb	O	Pb	Sb	Sn	Ti	V	W	Zn	Zr	Units	Number	N	Nb	O	Pb	Sb	Sn	Ti	V	W	Zn	Zr	Units		
IRSID 1660												37 mm Ø x 30 mm	IRSID 1660												37 mm Ø x 30 mm		
ECRM 056-1D	0.0146	0.00043	.	.	0.00239	0.00090	.	.	0.204	.	0.00209	.	38 mm Ø x 19 mm	ECRM 056-1D	0.0146	0.00043	.	.	0.00239	0.00090	.	.	0.204	.	0.00209	.	38 mm Ø x 19 mm
SRM 1227	.	.	.	.	.	.	.	0.002	.	.	.	.	32 mm Ø x 19 mm	SRM 1227	.	.	.	.	.	.	.	0.002	.	.	.	.	32 mm Ø x 19 mm
SS 602/2	.	.	.	.	.	.	.	(0.001)	.	.	.	.	44 mm Ø x 19 mm	SS 602/2	.	.	.	.	.	.	.	(0.001)	.	.	.	.	44 mm Ø x 19 mm
BS 64C	0.0084	(<0.003)	.	.	.	(0.001)	(0.002)	0.005	.	.	(<0.005)	.	44 mm Ø x ~7 or 19+ mm	BS 64C	0.0084	(<0.003)	.	.	.	(0.001)	(0.002)	0.005	.	.	(<0.005)	.	44 mm Ø x ~7 or 19+ mm
HRT FE2014-N	0.0052	.	.	.	.	.	.	0.066	.	.	.	.	~35 mm Ø x 20 mm	HRT FE2014-N	0.0052	.	.	.	.	.	.	0.066	.	.	.	.	~35 mm Ø x 20 mm
VS UG128	0.0088	.	.	.	.	.	.	0.0046	.	.	.	.	~38 mm Ø x ~20 mm	VS UG128	0.0088	.	.	.	.	.	.	0.0046	.	.	.	.	~38 mm Ø x ~20 mm
ECRM 056-2D	.	.	.	.	.	.	.	.	.	.	.	.	44 mm Ø x 25 or 30 mm	ECRM 056-2D	.	.	.	.	.	.	.	.	.	.	.	.	44 mm Ø x 25 or 30 mm
BS 54J	0.0060	(0.002)	(0.0011)	.	(0.0006)	(0.005)	0.0020	0.0014	0.0024	Fe:97.6	.	38 mm Ø x ~7 or 19+ mm 17034	BS 54J	0.0060	(0.002)	(0.0011)	.	(0.0006)	(0.005)	0.0020	0.0014	0.0024	Fe:97.6	.	38 mm Ø x ~7 or 19+ mm 17034		
SRM 1224	.	.	.	.	.	.	.	0.002	.	.	.	.	32 mm Ø x 19 mm	SRM 1224	.	.	.	.	.	.	.	0.002	.	.	.	.	32 mm Ø x 19 mm
VS UG129	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~20 mm	VS UG129	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~20 mm
VS RG28	.	0.029	.	.	.	.	0.0041	0.022	0.006	.	.	.	~45 mm Ø x ~28 mm	VS RG28	.	0.029	.	.	.	.	0.0041	0.022	0.006	.	.	.	~45 mm Ø x ~28 mm
VS RG28/1	.	0.041	.	.	.	.	0.022	0.035	0.0041	.	.	.	~45 mm Ø x ~28 mm	VS RG28/1	.	0.041	.	.	.	.	0.022	0.035	0.0041	.	.	.	~45 mm Ø x ~28 mm
IARM 373A	0.0088	0.001	0.002	(0.001)	(0.002)	0.0069	0.0017	0.023	(0.002)	(0.003)	(0.003)	31 mm Ø x 2 mm	IARM 373A	0.0088	0.001	0.002	(0.001)	(0.002)	0.0069	0.0017	0.023	(0.002)	(0.003)	(0.003)	31 mm Ø x 2 mm		
VS UG20/6	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~28 mm	VS UG20/6	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~28 mm
NM 309	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm last	NM 309	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm last
SS 435/1	.	0.039	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm	SS 435/1	.	0.039	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
IARM Fe1050-18	0.0097	(0.0013)	0.0026	.	0.0015	0.0103	0.0008	0.0270	.	Fe:98.0	.	31 mm Ø x 2 or 18 mm	IARM Fe1050-18	0.0097	(0.0013)	0.0026	.	0.0015	0.0103	0.0008	0.0270	.	Fe:98.0	.	31 mm Ø x 2 or 18 mm		
SS 435/2	.	0.134	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm	SS 435/2	.	0.134	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
BS 56E	0.0056	(<0.002)	.	(0.0001)	0.0004	(0.0006)	(0.001)	(<0.002)	.	.	.	.	44 mm Ø x ~13 to ~18 mm last	BS 56E	0.0056	(<0.002)	.	(0.0001)	0.0004	(0.0006)	(0.001)	(<0.002)	.	.	.	.	44 mm Ø x ~13 to ~18 mm last
IRSID 1636	.	.	.	.	.	.	.	.	.	.	.	.	48 mm Ø x 30 mm	IRSID 1636	.	.	.	.	.	.	.	.	.	.	.	.	48 mm Ø x 30 mm
SS 459/2	.	0.0102	.	.	0.0044	0.0121	.	0.0585	.	.	(0.074)	38 mm Ø x 19 mm	SS 459/2	.	0.0102	.	.	0.0044	0.0121	.	0.0585	.	.	(0.074)	38 mm Ø x 19 mm		
BS 1045	0.0113	0.026	0.0040	(0.0005)	0.0017	0.0084	0.0011	(0.002)	(0.0007)	Fe:98.1	(0.0009)	38 mm Ø x ~7 or 19+ mm 17034	BS 1045	0.0113	0.026	0.0040	(0.0005)	0.0017	0.0084	0.0011	(0.002)	(0.0007)	Fe:98.1	(0.0009)	38 mm Ø x ~7 or 19+ mm 17034		
IARM 200D	0.009	0.0010	.	.	.	0.0079	(0.0013)	0.0244	(0.003)	.	.	31 mm Ø x 2 or 18 mm	IARM 200D	0.009	0.0010	.	.	.	0.0079	(0.0013)	0.0244	(0.003)	.	.	31 mm Ø x 2 or 18 mm		
VS UG123	0.0078	.	.	.	.	.	.	0.0019	.	.	.	.	~45 mm Ø x ~25 mm	VS UG123	0.0078	.	.	.	.	.	.	0.0019	.	.	.	.	~45 mm Ø x ~25 mm
IRSID 1657	.	.	.	.	.	.	.	(0.001)	.	.	.	.	42 mm Ø x 30 mm	IRSID 1657	.	.	.	.	.	.	.	(0.001)	.	.	.	.	42 mm Ø x 30 mm
NM 306	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 25 mm last	NM 306	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 25 mm last
IRSID 1648	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 28 mm	IRSID 1648	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 28 mm
NM EN-8	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm last	NM EN-8	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm last
IRSID 1642	.	.	.	.	.	.	.	(0.002)	.	.	.	.	45 mm Ø x 30 mm	IRSID 1642	.	.	.	.	.	.	.	(0.002)	.	.	.	.	45 mm Ø x 30 mm
IRSID 1647	.	.	.	.	.	.	.	.	.	.	.	.	41 mm Ø x 30 mm	IRSID 1647	.	.	.	.	.	.	.	.	.	.	.	.	41 mm Ø x 30 mm
IARM 210D	0.011	0.001	0.0034	0.001	0.002	0.010	0.0104	0.024	(0.002)	.	(0.001)	31 mm Ø x 2 or 18 mm	IARM 210D	0.011	0.001	0.0034	0.001	0.002	0.010	0.0104	0.024	(0.002)	.	(0.001)	31 mm Ø x 2 or 18 mm		
IARM 349A	0.0100	0.0012	0.003	(0.001)	(0.003)	0.015	0.0013	0.027	0.004	(0.003)	(0.002)	31 mm Ø x 2 or 18 mm	IARM 349A	0.0100	0.0012	0.003	(0.001)	(0.003)	0.015	0.0013	0.027	0.004	(0.003)	(0.002)	31 mm Ø x 2 or 18 mm		
IRSID 1652	.	.	.	.	.	.	.	.	.	.	.	.	48 mm Ø x 30 mm	IRSID 1652	.	.	.	.	.	.	.	.	.	.	.	.	48 mm Ø x 30 mm
BS 1040	0.0111	(0.0012)	0.0023	.	0.0022	0.0030	0.0018	0.030	.	Fe:98.0	H:0.0002	25 mm Ø x ~7 or 19+ mm 17034	BS 1040	0.0111	(0.0012)	0.0023	.	0.0022	0.0030	0.0018	0.030	.	Fe:98.0	H:0.0002	25 mm Ø x ~7 or 19+ mm 17034		
IRSID 1637	.	.	.	.	.	.	.	(0.002)	.	.	.	.	45 mm Ø x 30 mm	IRSID 1637	.	.	.	.	.	.	.	(0.002)	.	.	.	.	45 mm Ø x 30 mm
VS UG131	0.0070	.	.	.	.	.	.	.	.	.	.	.	~39 mm Ø x ~25 mm	VS UG131	0.0070	.	.	.	.	.	.	.	.	.	.	.	~39 mm Ø x ~25 mm
SS 605/2	.	.	.	.	.	.	.	(0.001)	.	.	.	.	44 mm Ø x 19 mm	SS 605/2	.	.	.	.	.	.	.	(0.001)	.	.	.	.	44 mm Ø x 19 mm
IRSID 1644	.	.	.	.	.	.	.	.	.	.	.	.	45 mm Ø x 30 mm	IRSID 1644	.	.	.	.	.	.	.	.	.	.	.	.	45 mm Ø x 30 mm
ECRM 084-1D	.	.	.	.	.	.	.	0.023	.	.	.	.	38 mm Ø x 25 or 30 mm	ECRM 084-1D	.	.	.	.	.	.	.	0.023	.	.	.	.	38 mm Ø x 25 or 30 mm
IRSID 1649	.	.	.	.	.	.	.	0.028	.	.	.	.	40 mm Ø x 28 mm	IRSID 1649	.	.	.	.	.	.	.	0.028	.	.	.	.	40 mm Ø x 28 mm
SS 460/2	.	0.068	.	0.0005	(0.0006)	.	.	0.0322	.	.	(<0.0005)	38 mm Ø x 19 mm	SS 460/2	.	0.068	.	0.0005	(0.0006)	.	.	0.0322	.	.	(<0.0005)	38 mm Ø x 19 mm		
VS RG30	.	0.139	.	.	.	.	.	0.63	0.91	.	.	.	~45 mm Ø x ~28 mm	VS RG30	.	0.139	.	.	.	.	.	0.63	0.91	.	.	.	~45 mm Ø x ~28 mm
BS 1035	0.0105	(0.001)	0.0036	(0.001)	(0.002)	0.0027	0.0007	0.026	0.0020	Fe:97.9	(0.0009)	40 mm Ø x ~7 or 19+ mm 17034	BS 1035	0.0105	(0.001)	0.0036	(0.001)	(0.002)	0.0027	0.0007	0.026	0.0020	Fe:97.9	(0.0009)	40 mm Ø x ~7 or 19+ mm 17034		
IRSID 1655	.	.	.	.	.	0.046	.	.	.	.	.	.	40 mm Ø x 34 mm	IRSID 1655	.	.	.	.	.	0.046	.	.	.	.	.	.	40 mm Ø x 34 mm
IRSID 1663	.	.	.	.	.	0.0143	0.051	.	.	.	.	.	44 mm Ø x 30 mm	IRSID 1663	.	.	.	.	.	0.0143	0.051	.	.	.	.	.	44 mm Ø x 30 mm
BS 1030A	0.0082	(0.0007)	0.0047	.	0.0014	(0.015)	0.0014	0.0261	(0.0011)	0.0033	Fe:98.0	38 mm Ø x ~7 or 19+ mm 17034	BS 1030A	0.0082	(0.0007)	0.0047	.	0.0014	(0.015)	0.0014	0.0261	(0.0011)	0.0033	Fe:98.0	38 mm Ø x ~7 or 19+ mm 17034		
VS UG90	0.015	.	.	.	.	0.0011	0.039	.	.	.	.	.	~47 mm Ø x ~30 mm	VS UG90	0.015	.	.	.	.	0.0011	0.039	.	.	.	.	.	~47 mm Ø x ~30 mm

ARSENIC AND ANTIMONY IN STEEL, CONTINUED ON THE NEXT PAGE

= Class, where 1 = CRM, 2 = RM, and 3 = RM with no uncertainties

analysis listed in mass % except * which is mg/kg

#	Number	As	Sb	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	N	Ti	V	W
2	CZ CM-2B	0.12	0.020	0.247	0.894	0.082	0.0114	1.95	0.99	1.20	1.53	0.046	.	0.0062	0.342	0.109	0.22
1	SS 458/2	.	0.089	0.198	0.479	0.0281	0.0314	0.504	.	.	.	0.055	0.053	.	.	0.105	.
1	SS 457/2	.	0.050	0.307	0.327	0.0098	0.0448	0.105	.	.	.	0.088	0.084	.	.	0.153	.
1	12X 12749X	0.081	.	0.176	1.41	0.023	0.066	0.48	0.253	0.47	0.453	0.202	.	.	0.0178	0.068	0.036
1	BS 1763	0.066	(0.019)	0.271	1.50	0.016	0.024	0.68	0.175	0.54	0.560	0.051	.	0.0100	0.30	0.291	<0.05
2	CZ CM-16B	0.065	0.0282	0.421	0.762	0.0508	0.0376	0.574	0.296	0.733	0.635	0.128	.	0.0154	0.121	0.272	0.141
1	IMZ 120	0.065	0.031	0.60	0.40	(0.049)	0.026	0.34	0.10	0.085	0.20	0.033	.	0.0115	.	.	.
1	12X 15266V	0.0640	.	0.455	1.240	0.0344	0.0258	0.674	0.226	1.317	3.49	0.526	.	.	.	0.106	.
1	VS UG146	0.056	.	0.77	2.42	(0.05)	0.028	1.99	0.593	1.39	0.186	0.017	.	0.017	0.075	0.062	0.028
1	IRSID 1656	0.055	.	0.477	0.730	0.027	0.013	0.277	.	(0.048)	(0.017)	(0.002)	.	.	.	(0.002)	.
2	CZ LA-3G	0.051	0.024	0.626	0.68	0.047	0.035	1.29	0.236	1.01	1.377	0.047	.	0.011	0.143	0.232	0.105
1	SRM 1264a	0.05	0.034	0.87	0.25	0.010	0.025	0.067	0.25	0.14	0.06	(0.008)	.	(0.0032)	0.24	0.10	0.10
2	CZ LA-5C	0.026	0.018	0.439	1.87	0.017	0.0088	0.394	0.138	2.59	3.815	0.081	.	0.024	0.048	0.536	0.631
1	IARM 196A	0.025	0.006	1.08	2.40	0.040	0.014	0.35	0.25	0.61	2.35	0.015	.	0.0084	0.014	0.157	0.189
2	CZ CM-6A	0.025	0.03	0.52	0.37	0.016	0.058	0.27	0.05	0.19	0.37	0.02	.	0.009	0.03	0.05	0.04
1	ECRM 087-1D	0.024	0.0046	0.174	0.671	0.010	0.046	0.263	0.171	0.118	0.078	.	.	0.0058	0.0138	0.043	0.072
1	IMZ 112A	0.023	0.021	0.212	0.471	0.0055	0.0188	0.257	0.068	0.055	0.099	0.017	.	0.014	0.031	0.106	0.034
2	CZ CM-5C	0.020	0.005	1.04	1.17	0.029	0.021	0.54	0.151	0.42	2.45	0.063	.	0.0107	(0.0016)	0.114	(0.004)
1	IRSID 1750	0.0188	0.0031	0.359	1.801	0.0128	0.075	0.246	0.320	0.187	0.227	0.0175	.	0.01069	0.00104	0.00245	0.0166
1	ECRM 055-2D	0.0187	0.00376	0.5199	0.687	0.0102	0.0205	0.3094	0.2089	0.3121	0.3217	.	.	.	.	.	.
3	CZ CM-5B	0.018	0.006	1.09	1.28	0.021	0.012	0.39	0.13	0.23	2.07	0.083	.	0.0135	0.02	0.06	0.03
2	CZ CM-14C	0.0165	0.0170	0.586	1.723	0.0169	0.0266	1.352	0.365	1.141	1.316	0.226	.	0.0092	0.420	0.325	0.0238
1	IMZ 71A	0.016	0.013	0.126	0.493	0.0126	0.0075	0.494	0.90	0.036	0.505	0.019	.	0.0065	0.0041	0.055	0.023
2	CZ CM-4B	0.015	0.052	0.72	0.50	0.023	0.012	0.80	0.40	1.40	2.23	0.025	.	0.013	0.12	0.18	0.116
2	CZ CM-23A	0.0146	0.137	0.917	0.803	0.0609	0.0348	0.934	0.234	0.230	3.064	0.323	.	0.0149	0.154	0.157	0.104
1	IRSID 1749	0.0134	0.0018	0.411	0.733	0.0104	0.0157	0.193	0.188	0.190	1.734	1.034	.	0.0066	0.0031	(0.0036)	(0.0030)
1	BS 30D	0.0128	0.0032	0.745	0.348	0.029	0.0010	0.301	0.116	0.191	3.93	0.0123	.	0.0168	0.0189	1.077	17.73
1	IRSID 1664	0.0115	0.0012	0.2008	0.472	0.0106	0.0259	0.0616	0.0820	0.0547	0.0707	.	0.0193	0.0072	0.0013	(0.0005)	<0.002
1	BS D-6	0.011	0.0012	0.472	0.78	0.007	0.0008	0.228	0.130	0.602	0.99	0.037	.	0.0031	0.0025	0.122	0.0018
1	BS 4340B	0.009	0.0017	0.42	0.658	0.0078	0.016	0.283	0.170	1.85	0.81	0.022	.	0.0060	0.0019	0.0033	(0.0028)
1	VS UG141	0.008	0.011	0.163	0.90	0.029	0.028	0.390	0.190	0.686	0.78	0.011	.	0.0092	0.104	0.294	0.29
1	BS 1982	0.007	0.002	0.128	0.441	0.012	0.026	0.255	0.177	0.197	2.09	0.021	.	0.0097	(0.001)	0.003	.
1	KUT A12	0.007	0.013	0.031	0.31	0.014	0.082	1.19	0.18	2.43	1.25	0.18	.	.	0.05	0.042	.
1	ECRM 268-1D	0.0062	0.0017	1.134	0.293	0.0209	0.0154	0.373	0.123	0.143	4.57	.	.	2.03	.	8.47	3.70
1	IARM 360A	0.0060	0.0023	0.331	0.733	0.008	0.023	0.260	0.235	0.078	0.113	0.0016	.	0.0102	0.0010	0.039	(0.001)
#	Number	As	Sb	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	N	Ti	V	W
1	IARM 209D	0.0060	0.004	0.322	0.68	0.0084	0.021	0.268	0.243	0.079	0.137	(0.003)	.	0.0107	0.0011	0.042	(0.002)
1	BS 4820A	0.006	0.0024	0.203	0.64	0.008	0.014	0.185	0.212	3.28	0.116	0.029	.	0.0076	0.0012	0.0010	(0.002)
1	VS UG142	0.006	0.028	0.107	0.54	0.051	0.012	0.61	0.794	0.129	2.91	0.084	.	0.020	0.0075	0.42	0.83
1	IARM 210D	0.0059	0.002	0.412	0.73	0.0052	0.030	0.230	0.273	0.122	0.096	(0.002)	.	0.011	0.0104	0.024	(0.002)
1	BS 3310	0.0058	0.0019	0.104	0.54	0.0092	0.0144	0.257	0.199	3.49	1.55	0.035	.	0.0075	0.0010	0.0029	(0.003)
1	IMZ 68	0.0057	0.0020	0.102	0.346	0.028	0.015	0.13	0.166	0.049	0.33	.	.	0.0086	0.0033	0.046	.
1	BS 1030	0.0055	0.0024	0.331	0.682	0.0101	0.0299	0.261	0.269	0.078	0.124	0.0014	.	0.0107	0.0005	0.031	0.0012
1	BS 4820B	0.0055	0.0028	0.199	0.67	0.0081	0.0113	0.269	0.221	3.32	0.116	0.038	.	0.0075	0.0013	0.0016	(0.003)
1	VS UG143	0.0054	0.010	1.52	1.41	0.013	0.0039	1.26	0.112	2.61	0.241	0.320	.	0.0057	0.084	0.094	0.48
1	BS 4140C	0.0052	0.0021	0.43	0.922	0.010	0.026	0.29	0.260	0.131	0.94	0.0215	.	0.0064	0.0009	0.0026	(0.003)
1	BS 8740	0.0051	0.0017	0.39	0.86	0.011	0.023	0.25	0.16	0.55	0.49	0.037	.	0.0073	0.0012	0.0024	0.0023
1	BS 1045	0.0050	0.0017	0.458	0.796	0.0069	0.023	0.215	0.190	0.060	0.108	(0.001)	.	0.0113	0.0011	(0.002)	(0.0007)
1	ECRM 129-3D	0.0049	0.00059	0.3684	0.371	0.0110	0.0165	0.2087	0.0804	1.022	1.702	1.016	.	0.0046	0.0030	.	.
1	BS 8620G	0.0049	0.0020	0.215	0.799	0.0094	0.020	0.264	0.191	0.58	0.568	0.027	.	0.0080	0.0011	0.0018	(0.0022)
1	IARM FeF11-21	0.0048	0.0017	0.114	0.530	0.0067	0.0141	0.679	0.123	0.069	1.349	0.018	.	.	0.0015	0.0038	.
1	12X 86200-21	0.0045	0.0024	0.211	0.811	0.0128	0.0224	0.237	0.199	0.551	0.507	0.0241	.	0.0082	.	0.0039	(0.003)
1	VS UG90	0.0044	0.0011	0.34	0.286	0.0079	0.012	0.221	0.200	0.265	0.261	0.037	0.032	0.015	0.039	.	.
1	IARM Fe1020-18	0.0044	0.0018	0.226	0.547	0.006	0.024	0.235	0.198	0.078	0.125	(0.003)	.	0.0098	.	0.036	.
1	VS UG89	0.0043	0.0011	0.92	0.76	0.0085	0.01	0.385	0.373	0.51	0.420	0.01	0.007	0.017	0.012	0.021	.
1	IARM Fe1215-18	0.0043	0.0018	0.043	0.96	0.059	0.29	(0.006)	0.164	0.055	0.051	.	.	0.0109	0.0007	0.0020	.
2	HRT FE2021-N	0.004	0.001	0.33	0.31	0.0178	0.0014	0.28	0.070	0.193	2.81	0.014	.	0.007	0.001	0.52	0.027
1	BS 8630	0.0038	0.0012	0.315	0.752	0.0032	0.0043	0.261	0.046	0.544	0.477	0.023	.	0.0038	0.0008	0.0006	(0.001)
2	BS 56E	0.0035	0.0004	0.483	0.72	0.010	0.025	0.24	0.015	0.015	0.021	0.062	.	0.0056	(0.001)	(0.002)	.
1	IMZ 114A	0.0035	0.018	0.358	1.156	0.0235	0.0220	0.328	0.492	0.098	0.423	0.027	.	0.0029	0.0088	0.096	(0.007)
1	BS E52100	0.0033	0.0011	0.99	0.371	0.011	0.004	0.270	0.090	0.066	1.54	0.019	.	0.0057	(0.0010)	0.0046	(0.0015)
1	KUT A18	0.003	0.005	1.16	(1.99)	0.014	0.007	0.15	0.066	0.125	0.90	(0.02)	.	.	0.011	0.10	.
1	BS 300A	0.0029	0.0011	0.416	0.716	0.0049	0.0008	1.71	0.118	1.87	0.798	0.098	.	0.0023	0.0095	0.070	<0.01
1	VS UG92	0.0027	0.0005	0.69	0.79	0.05	0.0029	1.98	0.111	0.155	0.200	0.091	0.08	0.016	0.022	0.024	.
1	BS 37G	0.0026	0.0009	1.663	0.326	0.021	0.0007	0.352	0.044	0.152	11.77	0.0060	.	0.0310	0.0025	0.70	0.034
1	BS XCAS	0.0016	0.0006	0.024	0.471	0.008	0.0064	0.339	0.020	0.031	0.035	(0.027)	.	0.0055	0.0010	0.020	(0.006)
#	Number	As	Sb	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	N	Ti	V	W

ARSENIC AND ANTIMONY IN STEEL, CONTINUED FROM THE PREVIOUS PAGE

Number	B	Bi	Ca	Ce	Co	Fe	Mo	Nb	O	Pb	Sn	Ta	Zn	Zr	Units	Comment
CZ CM-2B	0.0010	.	.	.	0.45	.	0.33	(0.58)	.	0.087	0.091	.	.	0.013	~37 mm Ø x ~25 mm	17034
SS 458/2	0.0069	.	.	.	0.198	.	.	0.0510	.	0.0140	.	.	.	(0.064)	38 mm Ø x 19 mm	
SS 457/2	0.0046	.	.	.	0.0217	.	.	0.0174	.	0.0098	.	.	.	0.025	38 mm Ø x 19 mm	
12X 12749X	.	.	.	.	0.426	.	0.195	.	.	0.016	0.018	.	.	.	~40 mm Ø x ~15 mm	
BS 1763	0.0031	.	<0.05	.	0.124	94.6	0.55	0.141	0.008	0.0026	(0.013)	(0.019)	.	(0.026)	37 mm Ø x 19 or 20 mm	
CZ CM-16B	0.0128	(0.045)	0.00033	.	0.058	.	0.424	0.094	.	0.0294	0.0289	.	0.0156	0.102	37 mm Ø x 25 mm	
IMZ 120	.	.	.	.	0.15	.	0.49	0.15	.	0.077	0.008	.	.	.	40 mm Ø x 40 mm	17034
12X 15266V	.	.	.	.	0.286	.	0.298	1.438	.	.	0.0082	0.116	.	.	~40 mm Ø x ~15 mm	
VS UG146	0.0019	0.0038	0.0023	0.009	0.0128	.	0.271	0.047	.	0.011	.	0.029	0.0098	.	~37 mm Ø x ~20 mm	
IRSID 1656	.	.	.	.	.	.	(0.007)	.	.	.	.	.	.	.	40 mm Ø x 35 mm	
CZ LA-3G	0.0039	.	0.0016	.	0.127	.	0.326	0.071	.	0.0098	0.031	.	.	0.068	~37 mm Ø x ~25 mm	
SRM 1264a	(0.011)	(0.0009)	0.00004	0.0002	0.15	[96.7]	0.49	0.15	(0.0010)	0.024	(0.008)	0.11	(0.001)	0.069	31 mm Ø x 19 mm	
CZ LA-5C	.	.	.	.	0.088	.	0.86	0.057	.	0.015	0.031	.	(0.013)	.	~37 mm Ø x 25 mm	17034
IARM 196A	0.0017	.	0.0002	.	0.013	.	0.129	0.087	0.0021	0.001	0.033	.	.	0.006	31 mm Ø x 18 mm	
CZ CM-6A	0.015	.	.	.	0.03	.	0.04	0.028	.	0.017	0.017	.	.	0.04	~39 mm Ø x 25 mm	
ECRM 087-1D	.	.	.	.	0.015	.	0.021	.	.	.	0.017	.	.	.	38 mm Ø x 25 or 30 mm	
IMZ 112A	0.0010	.	.	.	0.080	.	0.054	0.0123	.	0.008	0.162	.	0.0020	.	38 mm Ø x 20 mm	
CZ CM-5C	0.0012	.	(0.0006)	.	0.022	.	0.132	0.014	.	0.009	0.018	.	.	(0.07)	~39 mm Ø x 25 mm	
IRSID 1750	(0.0002)	(0.00002)	(0.0002)	(0.0005)	(0.0120)	.	0.0433	(0.0010)	.	(0.001)	0.0137	(0.0010)	(0.0012)	(0.0002)	38 mm Ø x 25 mm	17034
ECRM 055-2D	.	.	.	.	0.0257	.	0.0960	.	.	.	0.0162	.	.	.	38 mm Ø x 25 or 30 mm	
CZ CM-5B	0.002	.	.	.	0.022	.	0.10	0.015	.	0.01	0.012	.	.	0.09	~39 mm Ø x 25 mm	
CZ CM-14C	0.0249	.	.	.	0.0306	.	0.432	0.248	.	0.0090	0.048	.	.	0.037	37 mm Ø x 25 mm	
IMZ 71A	0.0009	.	.	.	0.025	.	0.018	0.0100	.	.	0.015	.	.	0.0065	35 mm Ø x 20 mm	
CZ CM-4B	0.017	.	.	.	0.115	.	0.33	0.071	.	0.022	0.028	.	0.007	.	~39 mm Ø x 25 mm	
CZ CM-23A	0.0129	(0.014)	0.0004	.	0.510	.	0.816	0.628	.	0.0034	0.059	(0.051)	0.0250	0.137	37 mm Ø x 25 mm	17025
IRSID 1749	(0.0005)	(0.00002)	(0.0002)	.	0.0141	.	0.257	(0.0005)	0.0002	(0.0002)	0.0148	.	(0.0006)	(0.0003)	41 mm Ø x 25 mm	
BS 30D	(0.0002)	.	0.0004	.	0.101	[75.0]	0.342	0.0071	0.0019	(0.0002)	0.0246	(0.02)	.	(0.0001)	38 mm Ø x ~7 or 19+ mm	
IRSID 1664	(0.0002)	<0.0001	(0.0005)	.	(0.0084)	.	0.0157	(0.0002)	.	0.0002	0.0108	.	(0.0007)	(0.0001)	37 mm Ø x 30 mm	
BS D-6	(0.0003)	.	0.0011	.	0.012	.	1.01	(0.002)	(0.0008)	(0.0003)	0.0104	.	.	.	38 mm Ø x ~7 or 19+ mm	
BS 4340B	<0.005	Mg:0.0002	<0.005	.	0.014	95.5	0.235	(0.0021)	0.0009	<0.005	0.008	.	.	(0.0006)	38 mm Ø x ~7 or 19+ mm	
VS UG141	0.0099	.	.	(0.02)	0.041	.	0.472	0.099	.	0.0068	0.089	0.031	0.0017	.	~37 mm Ø x ~20 mm	last
BS 1982	.	.	.	.	0.010	.	0.89	(0.003)	0.0017	(0.0003)	0.013	.	.	.	39 mm Ø x ~7 mm	
KUT A12	.	.	.	.	0.012	.	0.47	(0.03)	.	.	.	.	.	.	30-35 mm Ø x 39 mm	
ECRM 268-1D	0.0009	.	.	.	0.0290	.	3.20	.	.	.	0.0078	.	.	.	38 mm Ø x 25 mm	
IARM 360A	0.0004	.	0.0017	.	0.0067	.	0.024	0.0015	0.004	(0.001)	0.010	.	(0.003)	(0.001)	31 mm Ø x 2 or 18 mm	
Number	B	Bi	Ca	Ce	Co	Fe	Mo	Nb	O	Pb	Sn	Ta	Zn	Zr	Units	Comment
IARM 209D	0.0002	.	0.002	.	0.007	.	0.037	0.0014	0.005	0.001	0.012	.	(0.003)	.	31 mm Ø x 2 or 18 mm	17025
BS 4820A	0.0002	.	0.0003	.	0.008	.	0.203	(0.002)	0.0011	(0.0002)	0.0097	.	.	.	38 mm Ø x ~7 or 19+ mm	
VS UG142	.	0.012	0.0010	(0.04)	0.087	.	0.80	0.049	.	0.041	0.0126	.	0.0057	.	~37 mm Ø x ~20 mm	
IARM 210D	0.0004	.	0.0009	.	0.007	.	0.034	0.001	0.0034	0.001	0.010	.	(0.001)	.	31 mm Ø x 2 or 18 mm	
BS 3310	(0.0008)	.	(0.001)	.	0.0096	93.7	(0.052)	(0.0009)	(0.0008)	(0.0005)	0.0103	0.007	.	(0.001)	44 mm Ø x ~7 or 19+ mm	
IMZ 68	.	.	.	.	0.008	.	.	.	.	.	0.0066	.	.	.	38 mm Ø x 20 mm	17025, last
BS 1030	0.0003	.	0.0012	.	0.0069	(98.1)	0.0182	(0.0004)	0.005	0.0005	0.0114	(0.001)	.	(0.0002)	38 mm Ø x ~7 mm	
BS 4820B	(0.0003)	.	0.0004	.	0.012	94.8	0.251	0.0022	(0.0015)	(0.0003)	0.0098	(0.0020)	.	0.0017	38 mm Ø x ~7 or 19+ mm	
VS UG143	0.0010	0.008	0.0015	0.019	0.0171	.	0.046	0.014	.	0.0074	0.059	.	0.013	0.198	~37 mm Ø x ~20 mm	
BS 4140C	(0.0007)	.	0.0010	.	0.0078	96.8	0.169	0.0019	0.0011	(0.0006)	0.0095	(0.01)	.	(0.0009)	38 mm Ø x ~7 or 19+ mm	
BS 8740	0.0003	.	(0.0003)	.	0.0086	96.91	0.27	(0.0007)	(0.001)	(0.0003)	0.008	(0.003)	.	(0.001)	38 mm Ø x ~7 or 19+ mm	17034
BS 1045	(0.0003)	.	0.0013	.	0.0056	98.1	0.0170	0.026	0.0040	(0.0005)	0.0084	.	.	(0.0009)	38 mm Ø x ~7 or 19+ mm	
ECRM 129-3D	.	.	.	.	0.0148	.	0.206	.	.	.	0.0067	.	(0.0030)	.	39 mm Ø x 25 mm	
BS 8620G	0.0002	.	0.0015	.	0.0077	97.1	0.205	0.0020	0.0032	<0.005	0.0095	<0.0005	(0.0007)	.	38 mm Ø x ~7-or 19+ mm	
IARM FeF11-21	0.0004	.	.	.	0.0062	.	0.614	.	.	.	0.0084	.	.	.	38 mm Ø x 2 or 19 mm	
12X 86200-21	.	.	.	.	0.0072	.	0.190	0.0014	.	.	0.0094	.	.	(0.0014)	38 mm Ø x 19 mm	17034
VS UG90	.	.	.	.	.	.	0.046	.	.	.	.	.	.	.	~47 mm Ø x ~30 mm	
IARM Fe1020-18	.	.	(0.002)	.	0.0065	98.5	0.0252	(0.0012)	(0.007)	.	0.0080	(0.003)	(0.003)	.	31 mm Ø x 2 or 18 mm	
VS UG89	.	.	.	.	.	.	0.044	0.0043	.	0.0003	.	.	.	.	~47 mm Ø x ~30 mm	
IARM Fe1215-18	.	.	.	.	0.0055	.	0.016	0.0012	.	.	0.0083	.	.	.	~38 mm Ø x ~3 or ~19 mm	
HRT FE2021-N	0.0006	.	.	0.0011	0.011	.	2.7	0.007	.	.	0.004	0.002	0.002	0.0012	36 mm Ø x 20 mm	17034
BS 8630	(0.0002)	.	(0.0007)	.	0.0029	97.3	0.194	(0.0006)	0.0008	(0.0007)	0.0029	.	(0.001)	.	44 mm Ø x 19+ mm	
BS 56E	.	.	(0.0005)	.	0.005	.	0.005	(0.002)	.	(0.0001)	(0.0006)	.	.	.	44 mm Ø x ~13 to ~18 mm	
IMZ 114A	0.0019	.	.	.	0.0057	.	0.112	0.015	.	0.021	0.014	.	(0.006)	.	38 mm Ø x 20 mm	
BS E52100	.	.	0.0006	.	0.0067	96.6	0.0209	(0.0010)	0.0009	<0.0005	0.0049	.	.	<0.005	38 mm Ø x ~7 or 19+ mm	
KUT A18	(0.011)	.	.	.	.	.	0.035	.	.	.	0.016	.	.	.	30-35 mm Ø x 39 mm	17034
BS 300A	(0.00032)	.	0.0008	.	0.0087	93.8	0.38	(0.002)	<0.01	<0.0005	0.0065	0.0022	.	(0.002)	38 mm Ø x ~7 or 19+ mm	
VS UG92	.	.	.	.	.	.	0.119	0.034	.	0.00017	.	.	.	.	~47 mm Ø x ~30 mm	
BS 37G	0.0003	.	0.0014	.	0.0166	.	0.78	0.0026	.	0.0005	0.0010	.	.	.	34 mm Ø x 19 mm	
BS XCAS	(0.0002)	.	<0.005	.	0.0086	99.0	0.0069	(0.0015)	0.008	(0.0007)	0.0017	.	.	(0.0009)	38 mm Ø x 30 mm	
Number	B	Bi	Ca	Ce	Co	Fe	Mo	Nb	O	Pb	Sn	Ta	Zn	Zr	Units	Comment

BISMUTH STEEL

= Class, where 1 = CRM and 2 = RM

#	Number	Bi	C	Mn	P	S	Si	Cu	Ni	Cr	Al	As	Ca	Co	Mo	N	Ti	V
2	BS 53MOD	0.102	1.01	0.36	0.011	0.012	0.26	0.070	0.072	1.37	0.019	0.004	(0.001)	0.007	0.024	0.0086	.	0.005
2	BS 8620A	0.073	0.184	0.80	0.008	0.079	0.21	0.15	0.44	0.48	0.016	0.007	0.0003	0.010	0.16	0.0107	(0.002)	0.004
2	BS 4150MOD	0.070	0.47	0.90	0.024	0.079	0.21	0.19	0.15	1.01	0.012	0.005	0.0010	0.012	0.21	0.0087	(0.002)	0.008
1	VS UG142	0.012	0.107	0.54	0.051	0.012	0.61	0.794	0.129	2.91	0.084	0.006	0.0010	0.087	0.80	0.020	0.0075	0.42
1	VS UG127	0.011	0.962	0.93	0.020	0.029	0.427	0.145	0.151	0.188	0.0051	.	.	.	.	0.0155	0.0094	0.141
1	VS UG143	0.008	1.52	1.41	0.013	0.0039	1.26	0.112	2.61	0.241	0.320	0.0054	0.0015	0.0171	0.046	0.0057	0.084	0.094
1	VS UG126	0.0055	0.856	0.78	0.0128	0.0077	0.348	0.030	0.029	0.591	0.0015	.	.	.	.	0.0123	.	0.075
1	VS UG145	0.0052	0.312	0.220	0.0066	0.059	0.164	0.307	0.453	1.10	0.009	0.034	0.0006	0.161	1.34	0.012	0.020	0.68
1	VS UG146	0.0038	0.77	2.42	(0.05)	0.028	1.99	0.593	1.39	0.186	0.017	0.056	0.0023	0.0128	0.271	0.017	0.075	0.062

Number	B	Ce	Nb	O	Pb	Sb	Se	Sn	Ta	W	Zn	Zr	Units	Comment
BS 53MOD	.	.	.	(0.002)	0.0005	.	.	0.008	.	.	.	.	38 mm Ø x ~12 to 19 mm	last
BS 8620A	.	.	.	(0.004)	(0.001)	.	.	0.009	.	.	.	.	38 mm Ø x ~7 mm	last
BS 4150MOD	.	.	.	(0.003)	0.0010	.	.	0.013	.	.	.	.	38 mm Ø x ~7 mm	last
VS UG142	.	(0.04)	0.049	.	0.041	0.028	.	0.0126	.	0.83	0.0057	.	~37 mm Ø x ~20 mm	
VS UG127	.	.	.	.	0.0049	.	.	.	.	.	.	.	~38 mm Ø x ~20 mm	
VS UG143	0.0010	0.019	0.014	.	0.0074	0.010	.	0.059	.	0.48	0.013	0.198	~37 mm Ø x ~20 mm	
VS UG126	.	.	.	.	0.009	.	.	.	.	.	.	.	~38 mm Ø x ~20 mm	
VS UG145	0.0019	(0.02)	0.102	.	0.021	.	.	0.0072	(0.01)	0.162	0.0017	0.008	~37 mm Ø x ~20 mm	
VS UG146	0.0019	0.009	0.047	.	0.011	.	.	.	0.029	0.028	0.0098	.	~37 mm Ø x ~20 mm	

CALCIUM IN STEEL

= Class, where 1 = CRM and 2 = RM

#	Number	Ca	C	Mn	P	S	Si	Cu	Ni	Cr	Al	As	Co	Mo	N	Ti	V	W
1	BS HiCal-1	0.0140	0.271	1.00	(0.007)	0.0007	1.29	0.152	3.28	1.55	0.070	0.0022	0.0024	0.379	.	0.0037	0.0027	(0.0009)
1	SS 115	0.0058	0.6224	0.682	0.0123	0.00093	0.2078	.	0.0196	0.0198	0.0527	.	.	.	0.0067	0.0027	.	.
2	BS 9325	0.0049	0.25	0.91	0.008	0.007	0.32	0.13	3.29	1.48	0.030	0.004	0.010	0.31	0.0089	.	0.004	.
2	BS 4820	0.0046	0.188	0.57	0.010	0.025	0.25	0.11	3.29	0.12	0.020	0.005	0.008	0.21	0.0079	.	(0.002)	.
1	SS 116	0.0036	0.617	0.6756	0.0092	0.00176	0.201	.	0.0155	0.0141	0.0587	.	.	.	0.0069	0.00171	.	.
1	12X 605M36A	0.0033	0.373	1.504	(0.009)	0.0317	0.283	0.199	0.146	0.243	0.0105	0.0102	0.0151	0.292	0.0095	.	.	.
1	BS 1009	0.0033	0.008	0.212	0.0118	0.0086	0.048	0.011	0.0129	0.028	0.026	0.0011	0.0020	(0.003)	0.0043	0.0007	(0.0006)	(0.001)
1	BS XCCS-2	0.0032	0.021	0.58	0.0055	0.0059	0.40	0.047	0.099	0.039	0.073	(0.004)	0.016	0.013	0.0139	0.011	0.018	0.020
1	IMZ 139	0.0031	.	.	.	.	.	.	.	.	(0.029)	.	.	.	0.0113	.	.	.
1	BS 1026A	0.0025	0.270	0.76	0.0064	0.021	0.180	0.094	0.081	0.123	0.0091	(0.005)	(0.005)	0.053	0.0100	(0.0006)	0.0257	0.0009
1	IMZ 130	0.0024	.	.	.	.	.	.	.	.	0.0046	.	.	.	0.0153	.	.	.
1	VS UG146	0.0023	0.77	2.42	(0.05)	0.028	1.99	0.593	1.39	0.186	0.017	0.056	0.0128	0.271	0.017	0.075	0.062	0.028
1	DSZU C047A	0.0022	0.789	0.411	0.022	0.0107	1.94	0.150	0.311	4.76	0.054	(0.0095)	0.105	0.76	0.022	0.0096	1.21	2.37
1	BS 1020	0.0022	0.210	0.568	0.0058	0.0249	0.250	0.184	0.059	0.109	0.0006	0.0074	0.0070	0.018	0.0109	(0.0005)	0.0363	(0.0004)
1	DSZU C040A	0.0021	0.013	0.012	0.0023	0.0029	0.060	0.007	0.005	0.007	0.039	(0.0002)	(0.002)	(0.001)	0.0068	0.0010	(0.001)	(0.002)
2	HRT FE2009-N	0.0020	0.12	0.55	0.010	0.003	0.32	0.08	0.25	2.56	0.030	.	.	1.02	.	.	0.015	.
1	IARM 209D	0.002	0.322	0.68	0.0084	0.021	0.268	0.243	0.079	0.137	(0.003)	0.0060	0.007	0.037	0.0107	0.0011	0.042	(0.002)

Number	B	Bi	Ce	Fe	Mg	Nb	O	Pb	Sb	Sn	Ta	Zn	Zr	Units	Comment
BS HiCal-1	(0.0001)	.	.	[91.9]	(0.0003)	(0.002)	.	(0.0005)	.	(0.0002)	.	.	(0.0008)	~38 mm Ø x ~30 mm	17025
SS 115	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm	
BS 9325	.	.	.	.	.	.	0.0010	.	.	0.009	.	.	.	38 mm Ø x ~7 mm	last
BS 4820	.	.	.	.	.	.	0.0027	.	.	(0.008)	.	.	.	38 mm Ø x ~7 mm	
SS 116	.	.	.	.	.	.	.	0.00012	.	.	.	.	.	44 mm Ø x 19 mm	
12X 605M36A	.	.	.	.	.	.	.	.	.	0.0101	.	.	.	~38 mm Ø x ~15 mm	
BS 1009	(0.0002)	.	.	99.6	(0.0003)	(0.0008)	0.0060	(0.0004)	(0.0009)	0.0007	.	.	(0.0006)	38 mm Ø x ~7 or 19+ mm	17034
BS XCCS-2	0.021	.	.	98.6	0.0003	(0.003)	0.0066	(0.0004)	(0.0016)	(0.0015)	(0.023)	(0.008)	(0.0015)	~37 mm D x ~30 mm	17034
IMZ 139	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm	
BS 1026A	(0.0003)	.	.	98.3	<0.001	0.0008	0.0042	<0.005	0.0013	0.0068	<0.1	(0.008)	0.0011	38 mm Ø x ~7 or 19+ mm	17034
IMZ 130	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm	
VS UG146	0.0019	0.0038	0.009	.	.	0.047	.	0.011	.	.	0.029	0.0098	.	~37 mm Ø x ~20 mm	
DSZU C047A	0.0006	.	.	.	.	0.020	.	.	.	0.0104	.	.	.	40 mm Ø x 25 mm	
BS 1020	(0.0001)	.	.	[98.5]	(0.0001)	(0.0003)	0.0046	(0.0002)	(0.0018)	0.0090	.	.	(0.0005)	44 mm Ø x ~7 or 19+ mm	17025
DSZU C040A	0.00032	.	.	.	.	(0.0003)	.	.	.	(0.0002)	.	.	.	40 mm Ø x 25 mm	
HRT FE2009-N	.	.	.	.	.	.	.	.	.	.	.	0.004	.	40 mm Ø x 40 mm	
IARM 209D	0.0002	.	.	.	.	0.0014	0.005	0.001	0.004	0.012	.	(0.003)	.	31 mm Ø x 2 or 18 mm	

CRM Al, Ca, AND N IN LOW ALLOY STEEL

Number	Al	Ca	N	Units
IMZ 133	.	.	0.0360	40 mm Ø x 40 mm
IMZ 131	0.0043	.	0.0333	40 mm Ø x 40 mm
IMZ 135	0.0274	0.0008	0.0238	40 mm Ø x 40 mm
IMZ 169	0.075	.	0.0193	40 mm Ø x 40 mm
IMZ 141	0.0071	.	0.0154	40 mm Ø x 40 mm
IMZ 130	0.0046	0.0024	0.0153	40 mm Ø x 40 mm
IMZ 139	(0.029)	0.0031	0.0113	40 mm Ø x 40 mm
IMZ 132	0.0021	0.0002	0.0097	40 mm Ø x 40 mm
IMZ 137	0.0017	0.00025	0.0083	40 mm Ø x 40 mm
IMZ 140	0.0307	0.0015	0.0083	40 mm Ø x 40 mm
IMZ 138	0.0022	.	0.0063	40 mm Ø x 40 mm
IMZ 134	0.0124	0.0005	.	40 mm Ø x 40 mm
IMZ 136	0.0034	0.00031	.	40 mm Ø x 40 mm

RM CERIUM BINARY

analysis listed in mass % 40 mm Ø x 25-30 mm

Number	Ce	Number	Ce
DSZU SU 604	0.496	DSZU SU 58	0.02
DSZU SU 603	0.198	DSZU SU 57	0.011
DSZU SU 60	0.097	DSZU SU 602	0.005
DSZU SU 59	0.05	DSZU SU 601	0.002

C-Mo and Cr-Mo STEEL XRF SET

# = class, where 1 = CRM ISO 17025 and 2 = RM,				Set Part Number: BS MOLY-5				AVAILABLE INDIVIDUALLY				~7 mm discs					
#	Grade	Alloy	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Co	N	Sn	V
2	C-.5Mo	4419	BS 3952	0.208	0.546	0.011	0.021	0.264	0.202	0.112	0.105	0.519	0.048	.	(0.0005)	.	.
1	1.25Cr-.5Mo	F-11	BS 45B	0.140	0.502	0.0068	0.017	0.583	0.101	0.136	1.14	0.60	0.030	0.0090	0.0066	0.0069	0.0083
1	2.25Cr-1Mo	F-22	BS 46B	0.126	0.472	0.0087	0.0187	0.219	0.128	0.081	2.28	1.00	0.020	0.0074	0.0100	0.0073	0.0073
2	5Cr-.5Mo	F-5	BS 47A	0.130	0.44	0.017	0.015	0.27	0.11	0.12	4.22	0.47	0.015	0.011	0.018	0.008	0.016
1	9Cr-1Mo	F-9	BS 48B	0.110	0.365	0.0228	0.0068	0.75	0.070	0.165	8.78	0.949	0.0157	0.0165	0.0088	0.0049	0.033

17034

CRM EPMA SETS

available in sets only, as grouped 4x10x15mm

Number	Cr	Number	Ni
NMIJ 1001-a	5.00	NMIJ 1006-a	5.04
NMIJ 1002-a	14.96	NMIJ 1007-a	10.05
NMIJ 1003-a	19.87	NMIJ 1008-a	20.02
NMIJ 1004-a	29.84	NMIJ 1009-a	39.92
NMIJ 1005-a	39.69	NMIJ 1010-a	60.07

Cr-Mo STEEL (Cr > 0.99, Mo > 0.44) CHART 1 or 3

= Class, where 1 = CRM and 2 = RM

#	Number	Cr	Mo	C	Mn	P	S	Si	Cu	Ni	Al	As	Co	N	Sn	Ti	V	W
1	DSZU C082	12.24	1.11	2.32	0.33	0.029	0.014	0.36	0.118	0.239			0.035				4.02	0.17
2	HRT FE2019-H	11.89	0.86	1.54	0.39	0.025	(0.003)	0.51	0.08	0.14	0.015	.	.	.	.	0.012	0.80	
1	BS 37G	11.77	0.78	1.663	0.326	0.021	0.0007	0.352	0.044	0.152	0.0060	0.0026	0.0166	0.0310	0.0010	0.0025	0.70	0.034
1	BS 37H *	11.7	0.79	1.56	0.30	0.027	0.001	0.31	0.20	0.35	0.010	0.003	0.020	0.030	0.004	0.002	0.61	0.028
2	BS 37E	11.54	0.79	1.51	0.29	0.024	0.002	0.37	0.053	0.34	0.002	0.002	0.021	0.052	0.003	0.002	0.78	0.021
1	IARM 41D	11.5	0.74	1.519	0.256	0.021	0.012	0.256	0.047	0.114	0.014	(0.01)	(0.020)	0.0152	(0.005)	(0.003)	0.77	0.034
2	CT D2	11.46	0.75	1.53	0.48	0.013	0.005	0.40	0.04	0.10	.	.	0.02	.	.	.	0.89	<0.01
1	IMZ 171	11.44	1.23	0.195	0.42	0.020	0.014	0.21	0.116	0.59	0.036	.	0.024	0.057	0.008	(0.001)	0.26	.
2	BS 37D	11.07	1.09	1.54	0.28	0.021	0.015	0.29	0.063	0.21	.	.	0.07	0.016	0.004	.	0.80	0.16
1	IMZ 196	11.04	0.65	0.179	0.42	0.018	0.012	0.46	0.080	0.44	0.029	.	1.55	0.058	.	.	0.34	1.54
1	VS LG37/1	10.10	0.66	0.121	0.444	(0.02)	(0.01)	0.360	(0.13)	0.704							0.385	
2	CZ CM-17A	9.58	1.116	0.142	0.524	0.0310	0.0175	0.612	0.201	0.520	0.0089	0.0105	0.0329	0.0743	0.0109	0.0236	0.247	0.099
1	IMZ 157	9.51	0.71	0.095	0.63	0.015	0.010	0.59	0.066	0.50	0.26	.	.	0.051	.	0.044	0.26	
1	IARM FeP92-18	9.4	0.52	0.092	0.737	(0.005)	(0.005)	0.20	0.074	0.82	(0.005)	.	0.036	(0.0036)	(0.006)	(0.003)	0.188	1.97
1	IMZ 170	8.82	0.88	0.155	0.50	0.018	0.014	0.32	0.285	0.63	0.11	.	(0.022)	0.065	0.007	(0.002)	0.24	(0.19)
1	BS 48B	8.78	0.949	0.110	0.365	0.0228	0.0068	0.75	0.070	0.165	0.0157	0.0048	0.0165	0.0088	0.0049	0.0031	0.033	0.026
1	BS 9905A	8.75	0.95	0.113	0.465	0.0133	0.0040	0.34	0.091	0.152	0.0186	0.0065	0.0136	0.034	0.0060	0.0023	0.216	0.0024
2	HRT FE2003-H	8.66	0.93	0.104	0.46	0.013	0.002	0.43	0.05	0.26	(0.004)	.	0.013	.	.	.	0.217	
1	13X 90901A	8.43	0.905	0.102	0.447	0.0148	0.0009	0.429	0.039	0.249	0.021	.	.	0.0472	0.0020	(0.0025)	0.208	0.009
1	IARM Fe91-18	8.24	0.94	0.099	0.453	0.015	(0.002)	0.27	0.041	0.187	(0.006)	.	0.013	0.046	(0.004)	(0.0021)	0.198	(0.003)
1	ECRM 274-1D	8.036	1.4551	1.563	0.397	0.0148	0.0096	1.057	0.0281	0.077	(0.0025T)	(0.0013)	(0.0230)	0.0769	(0.0010)	(0.0011)	4.010	0.0087
1	DSZU C081	7.78	2.13	1.01	0.32	0.017	0.011	1.10	0.124	0.207	.	.	0.029	.	.	.	0.25	0.05
1	DSZU C076	5.75	4.29	0.69	0.18	0.024	0.022	0.58	0.120	0.213	.	.	13.88	.	.	.	2.03	9.81
1	DSZU C070	5.57	1.28	2.43	0.38	0.021	0.054	0.79	0.130	0.153	.	.	0.053	.	.	.	9.39	0.29
1	IMZ 173	5.52	1.50	0.30	0.43	0.029	0.020	1.15	0.32	0.42	0.060	.	(0.013)	0.0342	0.012	(0.002)	0.47	0.10
1	IARM Fe15V-18	5.5	1.24	3.51	0.39	0.022	0.010	0.89	0.084	0.123	.	.	0.018	.	0.0054	0.0027	15.6	0.080
1	BS PM15A *	5.43	1.28	3.38	0.39	0.017	0.016	0.91	0.096	0.12	0.005	0.004	0.025	0.11	0.003	0.003	15.2	0.14
1	BS PM15B *	5.42	1.28	3.43	0.39	0.019	0.019	0.91	0.11	0.12	0.004	0.004	0.025	0.091	0.005	0.003	15.1	0.14
2	BS 10V	5.41	1.30	2.46	0.52	0.019	0.079	0.89	0.076	0.08	(0.002)	.	0.009	0.064	.	.	9.50	0.013
1	BS PM15	5.33	1.22	3.54	0.416	0.0198	0.0127	0.912	0.142	0.203	0.0025	0.0040	0.0330	0.111	0.0034	0.0029	14.79	0.109
2	BS 36D	5.25	0.96	0.97	0.68	0.021	0.007	0.27	0.060	0.089	0.010	0.002	0.010	0.0108	0.016	.	0.29	0.028
2	CT H13	5.23	1.36	0.39	0.30	0.015	0.005	1.05	0.061	0.10	.	.	.	.	.	.	1.02	.
1	BS A-11	5.21	1.25	2.42	0.507	0.023	0.123	0.98	0.092	0.25	0.0054	0.0057	0.044	0.110	0.0055	0.0019	9.24	(0.080)
2	BS 34D	5.15	1.24	0.395	0.38	0.017	0.005	1.06	0.049	0.10	.	.	0.031	.	.	.	0.94	0.10
2	CT A2	5.13	1.05	0.95	0.72	0.010	0.004	0.40	0.06	0.10	.	.	.	.	.	.	0.22	.
1	BS H-13A	5.11	1.32	0.391	0.445	0.0187	(0.003)	1.13	0.083	0.139	(0.03)	0.0050	0.033	0.034	(0.005)	(0.03)	0.92	0.100
1	IMZ 174	5.10	1.24	0.33	0.32	0.029	0.023	0.93	0.17	0.13	0.080	.	0.011	0.0288	0.010	(0.001)	0.98	0.021
1	VS LG42/1	5.08	0.52	0.124	0.41	(0.02)	(0.008)	0.46	(0.16)	0.37	.	.	.	.	.	.	0.020	
2	BS TH11	5.04	1.27	0.423	0.31	0.016	0.005	0.88	0.041	0.11	.	.	(0.008)	.	.	.	0.46	(0.01)
2	BS TH12	5.02	1.41	0.372	0.40	0.020	0.005	0.92	0.064	0.16	.	.	0.07	.	.	.	0.62	1.06
2	BS 36C	5.01	0.99	0.96	0.46	0.023	0.027	0.31	0.18	0.19	.	.	0.03	.	.	.	0.11	(0.04)
1	ECRM 271-1D	5.002	1.247	0.3698	0.437	0.0120	0.00045	0.923	0.1371	0.1552	0.0234	0.0057	0.0139	0.0137	0.0084	0.0020	0.850	0.0054
1	IARM 39C	4.99	0.97	0.99	0.45	0.019	0.007	0.28	0.077	0.144	0.017	(0.005)	0.013	0.011	0.005	0.0029	0.21	0.011
1	ECRM 276-2D	4.975	1.134	0.399	0.365	0.0093	0.0189	1.034	0.183	0.203	.	.	.	0.0116	0.0133	.	0.296	.
1	BS 36E *	4.91	0.99	0.98	0.55	0.019	0.002	0.27	0.052	0.14	0.014	<0.005	0.014	0.009	0.007	0.003	0.20	0.015
1	IARM 42C	4.86	1.29	0.382	0.40	0.022	0.0037	0.85	0.066	0.051	0.018	(0.01)	0.022	0.0201	(0.006)	0.0125	0.84	0.32
1	IARM 255A	4.84	1.33	0.403	0.27	0.013	0.0012	0.93	0.049	0.083	0.01	(0.002)	0.009	0.0067	0.006	0.002	0.43	0.007
1	IARM 255B	4.82	1.30	0.389	0.317	0.010	(0.002)	0.91	0.073	0.062	0.032	.	0.0090	(0.005)	(0.006)	.	0.515	
1	IARM 39B	4.79	1.01	0.99	0.54	0.017	0.003	0.35	0.10	0.14	0.006	.	0.014	0.0096	0.004	0.003	0.22	(0.026)

#	Number	Cr	Mo	C	Mn	P	S	Si	Cu	Ni	Al	As	Co	N	Sn	Ti	V	W
Number	B	Ca	Ce	Fe	La	Mg	Nb	O	Pb	Sb	Ta	Zn	Zr	Units		Comment		
DSZU C082	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm	Ø x 25 mm			
HRT FE2019-H	.	.	.	.	.	.	0.071	.	.	.	.	.	.	40 mm	Ø x 20 mm			
BS 37G	0.0003	0.0014	.	.	.	.	0.0026	.	0.0005	0.0009	.	.	.	34 mm	Ø x 19 mm		last	
BS 37H *	<0.005	<0.005	.	84.0	.	<0.005	0.004	0.001	<0.005	0.001	.	.	0.001	38 mm	Ø x ~7 or 19+ mm	*	Provisional	
BS 37E	(0.001)	.	.	.	.	.	(0.003)	(0.0025)	(0.0005)	<(0.002)	.	.	.	41 mm	Ø x 19 mm		last	
IARM 41D	(0.0006)	(0.0008)	.	.	.	.	(0.004)	(0.003)	(0.0008)	.	.	.	(0.002)	31 mm	Ø x 2 or 18 mm			
CT D2	.	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm	Ø x 16 mm			
IMZ 171	.	.	.	.	.	.	.	.	.	(0.003)	.	.	.	40 mm	Ø x 40 mm			
BS 37D	.	.	.	.	.	.	.	0.0031	.	.	.	.	.	37 mm	Ø x 7 or 19+ mm			
IMZ 196	0.065	.	.	.	.	.	0.073	.	.	.	.	.	.	37 mm	Ø x 30 mm			
VS LG37/1	.	.	.	.	.	.	.	.	.	.	.	.	.	45 mm	Ø x 28 mm			
CZ CM-17A	0.0060	.	.	.	.	.	.	.	0.0177	.	.	.	.	37 mm	Ø x 25 mm			
IMZ 157	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm	Ø x 40 mm			
IARM FeP92-18	0.0026	.	.	.	.	.	0.096	(0.013)	.	.	.	.	.	31 mm	Ø x 2 or 18 mm			
IMZ 170	.	.	.	.	.	.	0.087	.	.	(0.002)	.	.	.	40 mm	Ø x 40 mm			
BS 48B	(0.0002)	(0.003)	.	88.7	.	(0.0002)	(0.001)	0.0022	(0.0002)	(0.001)	.	(0.0003)	(0.002)	38 mm	Ø x 7 or 19+ mm		17025	
BS 9905A	(0.0005)	(0.0002)	.	88.9	.	(0.0004)	0.074	0.0024	(0.002)	(0.003)	(0.01)	.	(0.002)	38 mm	Ø x 7 or 19+ mm		17025	
HRT FE2003-H	0.0004	.	.	.	.	.	0.064	.	.	.	.	.	.	40 mm	Ø x 20 mm			
13X 90901A	.	.	.	.	.	.	0.070	.	.	.	.	.	.	40 mm	Ø x 15 mm			
IARM Fe91-18	.	.	.	.	.	.	0.070	(0.003)	.	.	.	.	.	31 mm	Ø x 2 or 18 mm			
ECRM 274-1D	(0.0005)	.	.	.	.	.	.	(0.0026)	.	(0.0002)	.	.	.	38 mm	Ø x 25 mm			
DSZU C081	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm	Ø x 25 mm			
DSZU C076	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm	Ø x 15 mm			
DSZU C070	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm	Ø x 15 mm			
IMZ 173	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm	Ø x 40 mm			
IARM Fe15V-18	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm	Ø x 2 or 19 mm			
BS PM15A *	0.0002	<0.005	.	[72.6]	.	<0.005	0.015	0.019	.	.	.	.	<0.005	51 mm	Ø x ~7 or 19+ mm	*	Provisional	
BS PM15B *	0.0002	<0.005	.	[72.7]	.	.	0.015	0.019	.	.	<0.005	.	<0.005	51 mm	Ø x ~7 or 19+ mm	*	Provisional	
BS 10V	.	.	.	.	.	.	.	.	.	.	.	.	.	41 mm	Ø x 7 or 19+ mm			
BS PM15	(0.0002)	(0.0001)	.	[73.0]	.	(0.0002)	0.014	0.0129	(0.00001)	(0.0010)	(0.0003)	.	(0.0005)	38 mm	Ø x 19+ mm		17025	
BS 36D	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm	Ø x 7 or 19+ mm			
CT H13	.	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm	Ø x 16 mm			
BS A-11	0.0008	(0.0002)	.	79.5	.	(0.0005)	(0.0070)	0.028	(0.00006)	(0.001)	.	.	(0.001)	38 mm	Ø x 7 or 19+ mm		17025	
BS 34D	.	.	.	.	.	.	.	.	.	.	.	.	.	41 mm	Ø x 7 mm		last	
CT A2	.	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm	Ø x 16 mm			
BS H-13A	(0.0007)	(0.0006)	.	90.2	.	(0.0002)	0.0052	(0.016)	(0.0004)	(0.002)	.	.	(0.002)	38 mm	Ø x 7 or 19+ mm		17034	
IMZ 174	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm	Ø x 40 mm			
VS LG42/1	.	.	.	.	.	.	.	.	.	.	.	.	.	45 mm	Ø x 28 mm			
BS TH11	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm	Ø x 7 or 19+ mm			
BS TH12	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm	Ø x 7 mm		last	
BS 36C	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm	Ø x 7 or 19+ mm			
ECRM 271-1D	.	0.0009	.	.	.	.	.	0.0020	.	.	.	.	.	35 mm	Ø x 25 mm			
IARM 39C	0.001	(0.001)	.	.	.	.	0.0040	0.001	(0.0001)	(0.002)	.	.	(0.002)	31 mm	Ø x 2 or 18 mm			
ECRM 276-2D	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm	Ø x 25 or 30 mm			
BS 36E *	<0.005	<0.005	.	91.8	.	.	0.003	0.001	<0.005	0.003	0.007	.	0.001	38 mm	Ø x ~7 or 19+ mm	*	Provisional	
IARM 42C	0.0011	(0.0005)	.	.	.	.	(0.004)	0.003	0.0007	(0.004)	(0.004)	(0.008)	(0.002)	31 mm	Ø x 2 or 18 mm			
IARM 255A	0.0004	(0.0004)	.	.	.	.	0.004	0.0011	<0.001	.	.	.	<0.005	31 mm	Ø x 2 mm			
IARM 255B	.	.	.	.	.	.	(0.006)	.	.	.	.	.	.	31 mm	Ø x 2 or 18 mm			
IARM 39B	.	.	.	.	.	.	0.006	.	.	.	.	.	.	31 mm	Ø x 2 or 18 mm			
Number	B	Ca	Ce	Fe	La	Mg	Nb	O	Pb	Sb	Ta	Zn	Zr	Units		Comment		

Cr-Mo STEEL (Cr > 0.99, Mo > 0.44) CHART 3 or 3

= Class, where 1 = CRM and 2 = RM

#	Number	Cr	Mo	C	Mn	P	S	Si	Cu	Ni	Al	As	Co	N	Sn	Ti	V	W
1	IARM 259A	3.27	1.43	0.479	0.399	0.020	0.0007	0.44	0.081	0.194	0.016	0.006	0.011	0.0077	0.004	0.0026	0.256	0.035
1	14X MN5U	3.18	1.93	1.36	8.78	0.0552	0.0273	1.47	0.691	2.10	0.0257	.	.	0.0231	0.0228	0.93	0.0490	.
1	DSZU C075	3.10	4.06	1.16	0.16	0.021	0.015	0.47	0.120	0.202	.	.	8.03	.	.	.	2.10	9.27
1	SRM 1772	3.10	1.39	0.477	0.61	0.008	0.0031	0.264	0.083	0.105	.	.	.	.	.	.	0.236	.
1	12X 722M24	3.094	0.497	0.236	0.510	0.0135	0.0199	0.262	0.200	0.208	0.0187	0.0075	.	.	0.0116	.	0.0080	.
2	CZ CM-23A	3.064	0.816	0.917	0.803	0.0609	0.0348	0.934	0.234	0.230	0.323	0.0146	0.510	0.0149	0.059	0.154	0.157	0.104
1	VS RG30	3.06	0.62	0.38	0.357	.	0.013	0.45	0.161	0.62	.	.	0.50	.	.	.	0.63	0.91
1	SS 407/2	3.03	0.83	0.490	0.195	0.038	0.0105	0.66	0.397	0.527	0.040	.	0.0068	(0.011)	.	.	0.19	.
2	HRT FE2022-N	2.97	0.93	0.319	0.447	0.0058	(0.0011)	0.256	0.029	0.170	0.0134	(0.0025)	0.0084	0.0060	0.0029	(0.0015)	0.279	(0.0050)
2	HRT FE2021-N	2.81	2.7	0.33	0.31	0.0178	0.0014	0.28	0.070	0.193	0.014	0.004	0.011	0.007	0.004	0.001	0.52	0.027
1	SRM 1173	2.70	1.50	0.423	0.19	0.033	0.092	1.28	0.204	4.06	.	.	.	.	.	.	0.42	.
1	DSZU C046	2.67	0.69	0.785	0.257	0.025	0.0153	1.21	0.211	1.47	0.47	0.0020	0.006	0.0099	0.0033	0.115	0.72	0.47
1	IMZ 159	2.64	0.98	0.075	0.39	0.022	0.005	0.33	0.41	0.31	0.024	.	.	.	.	.	0.10	0.26
1	IMZ 160	2.64	0.98	0.077	0.38	0.023	0.004	0.34	0.42	0.30	0.031	.	.	.	.	.	0.10	0.26
1	SRM C1173	2.63	1.46	0.453	0.174	0.031	0.092	1.38	0.204	4.04	.	.	.	.	.	0.037	0.42	.
1	VS UG35/2	2.63	0.65	0.301	0.109	.	0.003	0.94	0.174	0.84	.	.	.	.	.	.	0.108	.
2	HRT FE2009-N	2.56	1.02	0.12	0.55	0.010	0.003	0.32	0.08	0.25	0.030	.	.	.	.	.	0.015	.
1	IARM 36C	2.43	0.98	0.14	0.49	0.009	0.014	0.25	0.142	0.085	(0.017)	(0.005)	(0.008)	0.008	(0.008)	.	0.0061	.
1	SRM 1270	2.34	0.956	0.077	0.626	0.0065	0.0065	0.247	0.114	0.174	.	.	.	.	.	.	0.013	.
1	BS 46B	2.28	1.00	0.126	0.472	0.0087	0.0187	0.219	0.128	0.081	0.020	0.0041	0.0074	0.0100	0.0073	(0.001)	0.0073	0.0008
1	IMZ 169	2.20	1.03	0.099	0.54	0.015	0.0155	0.35	0.128	0.073	0.075	.	0.012	0.0193	0.062	0.001	(0.016)	.
1	BS 1982	2.09	0.89	0.128	0.441	0.012	0.026	0.255	0.177	0.197	0.021	0.007	0.010	0.0097	0.013	(0.001)	0.003	.
1	VS UG8/11	1.74	0.622	0.728	1.97	0.036	0.0019	0.31	0.160	0.291	(0.01)	.	.	0.0138	0.0058	.	0.181	0.70
1	IMZ 57/1	1.67	0.48	0.46	1.05	0.028	0.012	0.58	0.14	0.15	.	.	.	.	.	.	0.34	.
1	TL 1002	1.615	0.3037	0.1895	0.5658	0.0140	0.0087	0.3088	0.0260	1.502	0.0274	0.0026	(0.004)	0.0043	(0.0016)	(0.0012)	(0.004)	.
1	ECRM 195-1D	1.56	0.77	0.757	0.571	0.017	0.012	0.467	0.036	0.33	.	.	.	0.010	.	.	0.31	.
2	HRT FE2018-N	1.46	0.75	0.24	0.74	0.012	(0.003)	0.29	0.06	0.43	0.017	.	.	0.0066	.	.	0.30	.
1	12X 15CDV6A	1.397	0.875	0.171	0.839	0.0056	0.0086	0.152	0.0231	0.044	0.019	0.0041	.	0.0069	0.0011	.	0.242	.
1	BS 45C	1.37	0.57	0.116	0.482	0.0077	0.016	0.69	0.129	0.078	0.018	(0.003)	0.0059	0.0082	0.0071	0.0012	0.0028	(0.003)
1	IARM 55L	1.35	0.607	0.119	0.535	0.007	0.014	0.679	0.123	0.071	0.017	0.0045	0.0070	0.0072	0.0088	(0.0015)	0.0037	(0.004)
1	IARM FeP11-21	1.349	0.614	0.114	0.530	0.0067	0.0141	0.679	0.123	0.069	0.018	0.0048	0.0062	.	0.0084	0.0015	0.0038	.
1	KUT A12	1.25	0.47	0.031	0.31	0.014	0.082	1.19	0.18	2.43	0.18	0.007	0.012	.	.	0.05	0.042	.
1	VS UG4/11	1.21	0.87	0.21	0.59	0.024	0.0069	0.285	0.074	0.173	0.032	.	0.0108	0.020	.	0.034	0.78	0.0092
2	BS 40B	1.18	1.07	0.71	2.28	0.020	0.006	0.35	0.076	0.089	0.002	0.004	0.020	0.0076	0.005	0.002	0.10	0.11
1	BS 45B	1.14	0.60	0.140	0.502	0.0068	0.017	0.583	0.101	0.136	0.030	0.0066	0.0090	0.0066	0.0069	0.0024	0.0083	(0.0038)
1	12X 11572A	1.107	0.499	0.111	0.498	0.0069	0.0025	0.649	0.0576	0.0977	0.0290	0.0030	.	0.0058	0.0049	.	.	.
1	SS 492/3	1.076	1.318	1.18	8.33	0.0318	0.0093	0.299	0.0211	4.17	0.131	(0.002)	0.0048	0.0225	.	0.0024	(0.004)	.
1	12X 14072A	1.061	0.573	0.430	0.680	0.0151	0.0061	0.322	0.203	0.136	0.0039	.	0.0098	0.0103	(0.011)	.	0.301	.
1	IARM 40B	1.04	1.22	0.68	1.98	0.012	0.003	0.39	0.050	0.096	(0.006)	.	0.015	0.0107	0.004	0.003	0.014	0.013
1	IARM 299A	1.03	0.99	0.469	0.70	0.008	0.002	0.22	0.100	0.57	0.092	0.003	0.0054	0.0028	0.0055	0.0038	0.120	0.010
2	BS 9-4-30	1.00	1.01	0.316	0.22	0.008	<0.002	0.06	0.088	7.25	0.004	.	4.46	0.0014	.	.	0.09	.
2	CT X67975	1.00	0.53	0.48	0.56	0.009	0.005	0.28	0.060	0.13	.	.	.	.	0.003	.	0.30	.

Number	B	Ca	Ce	Fe	La	Mg	Nb	O	Pb	Sb	Ta	Zn	Zr	Units	Comment
IARM 259A	0.0003	.	.	.	.	.	0.003	0.0014	<0.0005	.	.	.	0.001	31 mm Ø x 2 mm	
14X MN5U	.	.	.	.	.	.	0.102	.	.	.	(0.007)	.	.	40 mm Ø x 15 mm	
DSZU C075	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm	
SRM 1772	.	.	.	.	.	.	.	.	.	.	.	.	.	34 mm Ø x 19 mm	
12X 722M24	.	.	.	.	.	.	.	.	.	.	.	0.0028	.	38 mm Ø x 15 mm	
CZ CM-23A	0.0129	0.0004	.	.	.	.	0.628	.	0.0034	0.137	(0.051)	0.0250	0.137	37 mm Ø x 25 mm	
VS RG30	.	.	.	.	.	.	0.139	.	.	.	.	.	.	45 mm Ø x 28 mm	
SS 407/2	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm	
HRT FE2022-N	(0.0004)	.	(0.0030)	.	.	(0.0008)	(0.0034)	.	.	(0.0012)	(0.0028)	(0.0028)	(0.0010)	31 mm Ø x 20 mm	
HRT FE2021-N	0.0006	.	0.0011	.	.	0.0004	0.007	.	.	0.001	0.002	0.002	0.0012	36 mm Ø x 20 mm	
SRM 1173	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm	
DSZU C046	(0.0004)	0.0007	.	.	.	.	(0.005)	.	.	.	.	.	.	40 mm Ø x 25 mm	last
IMZ 159	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm	
IMZ 160	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm	
SRM C1173	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm	
VS UG35/2	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 28 mm	
HRT FE2009-N	.	0.0020	.	.	.	.	.	.	.	.	.	0.004	.	40 mm Ø x 40 mm	
IARM 36C	.	.	.	.	.	.	.	.	.	.	.	.	.	31 mm Ø x 2 or 18 mm	
SRM 1270	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm	
BS 46B	.	.	.	95.7	.	(0.0003)	(0.003)	0.0026	(0.001)	(0.002)	.	.	(0.002)	38 mm Ø x 7 or 19+ mm	17025
IMZ 169	.	.	.	.	.	.	(0.0045)	.	(0.001)	.	.	.	.	40 mm Ø x 40 mm	
BS 1982	.	.	.	.	.	.	(0.0003)	0.0017	(0.0003)	0.002	.	.	.	39 mm Ø x 7 mm	last ISO 25
VS UG8/11	.	.	.	.	.	.	.	.	.	.	.	.	.	45 mm Ø x 28 mm	
IMZ 57/1	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm	
TL 1002	0.00032	.	.	.	.	.	(0.0017)	.	.	.	.	.	.	48 mm Ø x 20 mm	
ECRM 195-1D	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 25 or 30 mm	
HRT FE2018-N	(0.0003)	.	.	.	.	.	.	.	.	.	.	.	.	36 mm Ø x 20 mm	
12X 15CDV6A	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm	
BS 45C	0.0003	0.0008	.	96.5	.	0.0002	(0.002)	0.0010	<0.005	(0.002)	.	.	<0.05	38 mm Ø x 7 or 19+ mm	17034
IARM 35L	0.00044	.	.	.	.	.	(0.0026)	.	.	.	.	.	.	31 mm Ø x 2 mm	
IARM FeP11-21	0.0004	.	.	.	.	.	.	.	.	0.0017	.	.	.	38 mm Ø x 2 or 19 mm	
KUT A12	.	.	.	.	.	.	(0.03)	.	.	0.013	.	.	.	30-35 mm Ø x 39 mm	
VS UG4/11	.	.	.	.	.	.	0.071	.	.	.	.	.	.	45 mm Ø x 28 mm	
BS 40B	0.0006	.	.	.	.	.	.	.	.	.	.	.	.	41 mm Ø x 7 or 19+ mm	
BS 45B	(0.0003)	0.0008	.	96.7	.	(0.0004)	(0.002)	0.0015	(0.15)	(0.003)	.	.	(0.0009)	38 mm Ø x 7 or 19 mm	last 17034
12X 11572A	.	.	.	.	.	.	.	.	.	.	.	0.0009	.	38 mm Ø x 15 mm	
SS 492/3	.	.	.	.	.	.	.	.	.	.	.	.	.	Block 48 mm x 42 mm x 12 mm	
12X 14072A	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 15 mm	
IARM 40B	(0.0010)	.	.	.	.	.	0.005	(0.0014)	.	.	.	.	.	31 mm Ø x 2 or 18 mm	
IARM 299A	0.0003	(0.001)	.	.	.	.	0.006	(0.002)	(0.001)	(0.002)	.	.	(0.001)	31 mm Ø x 2 or 18 mm	
BS 9-4-30	.	.	.	.	.	.	.	.	<0.001	.	.	.	.	35 mm Ø x 7 or 19+ mm	
CT X67975	.	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 16 mm	last

LEADED STEEL				# = Class, where 1 = CRM and 2 = RM							OES regularly requires extension of preburn time						
#	Number	Pb	C	Mn	P	S	Si	Cu	Ni	Cr	Al	As	Co	Mo	N	Sn	V
2	BS 74B	0.34	0.08	0.91	0.087	0.316	0.002	0.006	0.012	0.019	(0.002)	.	.	0.008	.	.	.
1	BS 74C	0.328	0.077	0.94	0.082	0.294	(0.002)	0.005	0.011	0.019	(<0.002)	0.004	.	0.008	0.0040	(<0.002)	0.0016
1	14X 12144A	0.328	0.0800	1.227	0.0630	0.325	0.0093	0.0106	0.0162	0.0807	0.0034	0.0022	.	0.0089	0.0066	.	.
2	CZ CM-15C	0.29	0.075	1.13	0.063	0.32	0.006	0.141	0.072	0.052	.	.	(0.01)	0.021	.	.	.
1	BS 74D	0.282	0.072	1.00	0.073	0.28	(0.007)	0.0057	0.0115	0.0185	(0.008)	0.0047	0.0043	0.0063	0.0040	(0.0010)	0.0012
1	BS 75G	0.247	0.161	1.08	0.0085	0.114	0.011	0.0300	0.045	0.079	0.0016	0.0028	0.0031	0.0174	0.0030	0.0014	0.0005
2	BS 75F	0.202	0.165	1.05	0.009	0.116	0.004	0.030	0.044	0.080	0.002	.	.	0.018	.	.	.
1	BS 73C	0.21	0.206	0.86	0.0111	0.031	0.280	0.025	0.56	0.574	0.028	0.0035	0.0028	0.180	0.0040	(0.002)	0.0031
IARM Fe86L20-18		0.20	0.175	0.794	0.009	0.015	0.29	0.242	0.458	0.53	0.025	.	0.0085	0.203	0.0052	0.014	0.0016
1	BS 73D	0.18	0.202	0.834	0.018	0.027	0.287	0.240	0.420	0.47	0.015	0.0052	0.0123	0.162	0.0101	0.021	0.0028
2	BS 72B	0.174	0.497	0.87	0.029	0.029	0.26	0.21	0.169	0.985	0.020	(0.006)	0.012	0.187	0.0081	0.014	0.004
2	BS 73B	0.139	0.200	0.83	0.009	0.030	0.250	0.141	0.416	0.512	0.022	0.004	0.008	0.170	0.0113	0.008	(<0.002)
2	BS 70B	0.135	0.40	0.90	0.009	0.022	0.27	0.13	0.25	1.00	0.024	.	.	0.205	.	.	.
1	BS 70C	0.133	0.387	0.90	(0.009)	0.020	0.27	0.123	0.247	0.99	0.019	0.007	0.0086	0.202	0.0079	0.008	0.0026

Number	B	Ca	Nb	O	Sb	Ti	W	Zn	Grade	Units	
BS 74B	.	.	.	.	.	.	.	.	12L14	41 mm Ø x ~7 or 19+ mm	
BS 74C	.	.	(<0.005)	.	.	.	.	.	12L14	41 mm Ø x ~7 or 19+ mm	17025
14X 12144A	.	.	.	.	.	.	.	.		~40 mm Ø x ~15 mm	
CZ CM-15C	.	.	.	.	.	.	.	.		~39 mm Ø x 25 mm	
BS 74D	0.0009	<0.001	(0.0018)	(0.028)	<0.05	(0.0007)	<0.005	Fe:98.2	12L14	41 mm Ø x ~7 or 19+ mm	17025, 17034
BS 75G	(0.0002)	(0.0002)	(0.0003)	0.0155	.	(0.0004)	0.0004	.	11L17	41 mm Ø x ~7 or 19+ mm	17025 Fe:[98.2]
BS 75F	(0.0002)	(0.0002)	(0.0003)	0.0155	.	(0.0004)	0.0004	.	11L17	40 mm Ø x ~7 or 19+ mm	17025 last
BS 73C	(0.0002)	(0.0005)	(0.002)	0.0013	(0.002)	0.0024	(0.006)	.	86L20	38 mm Ø x ~7 or 19+ mm	17025, 17034 Fe:[97.0]
IARM Fe86L20-18		CRM	.	.	.	.	.	.	86L20	38 mm Ø x ~2 or 19 mm	
BS 73D	(0.0004)	0.0004	(0.0014)	0.0022	(0.0021)	0.0012	0.0107	<0.05	86L20	38 mm Ø x ~7 or 19+ mm	17025, 17034 Fe: 97.1
BS 72B	.	.	(0.001)	.	.	(0.002)	.	.	41L50	37 mm Ø x ~7 or 19+ mm	17025
BS 73B	.	.	.	.	.	.	.	.	86L20	41 mm Ø x ~12 or ~17 mm	25(pre-17025) last
BS 70B	.	.	.	.	.	.	.	.	41L40MOD	41 mm Ø x ~7 or 19+ mm	17025
BS 70C	(0.0003)	.	<0.005	0.0020	(0.003)	0.0020	(0.0006)	.	41L40MOD	41 mm Ø x ~7 or 19+ mm	17025, 17034 Fe: 96.7

RM

LEADED AND BISMUTH STEEL XRF SET

Part Number: BS PB-BI-7

AVAILABLE INDIVIDUALLY

~7 mm discs

17025

Grade	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Bi	Pb	Sn	V	N
11L17	BS 75F	0.165	1.05	0.009	0.116	0.004	0.030	0.044	0.080	0.018	0.002	.	0.202	.	.	.
12L14	BS 74B	0.08	0.91	0.087	0.316	0.002	0.006	0.012	0.019	0.008	(0.002)	.	0.34	.	.	.
41L40	BS 70B	0.40	0.90	0.009	0.022	0.27	0.13	0.25	1.00	0.205	0.024	.	0.135	.	.	.
41L50	BS 72B	0.497	0.87	0.029	0.029	0.26	0.21	0.169	0.985	0.187	0.020	.	0.174	0.014	0.004	0.0081
4140 + Bi & S	BS 4140A	0.40	0.84	0.021	0.076	0.21	0.15	0.15	0.97	0.16	0.016	0.105	(0.001)	0.011	0.004	0.0098
4150 + Bi & S	BS 4150 MOD	0.47	0.90	0.024	0.079	0.21	0.19	0.15	1.01	0.21	0.012	0.070	0.0010	0.013	0.008	0.0087
8620 + Bi & S	BS 8620A	0.184	0.80	0.008	0.079	0.21	0.15	0.44	0.48	0.16	0.016	0.073	(0.001)	0.009	0.004	0.0107

CRM

MANGANESE STEEL SET

AVAILABLE IN SET/6 ONLY

30 mm Ø x 24 mm

Number	C	Mn	P	S	Si	Cu	Ni	Cr	B	Co	Mo	N	Ti	V
NCS HS11720-6	2.38	5.36	0.029	0.108	1.69	0.474	3.43	0.084	0.017	0.107	1.51	0.016	0.218	0.837
NCS HS11720-1	1.96	22.96	0.188	0.0063	0.348	0.025	0.045	3.01	0.0021	0.0094	(0.0095)	0.091	0.0041	0.034
NCS HS11720-2	1.61	10.66	0.052	0.054	0.652	0.221	0.328	0.467	0.0038	0.010	0.118	0.054	0.047	0.132
NCS HS11720-3	1.16	16.75	0.077	0.055	1.16	0.143	0.152	0.257	0.0013	0.091	0.589	0.033	(0.030)	0.530
NCS HS11720-4	1.06	15.04	0.044	0.059	1.47	0.089	1.66	1.45	0.0023	0.0093	0.881	0.072	0.013	0.567
NCS HS11720-5	0.750	12.20	0.118	0.037	1.01	0.449	0.838	0.680	0.0009	0.0070	0.302	0.026	(0.018)	0.273

MANGANESE STEEL

= Class, where 1 = CRM and 2 = RM

#	Number	Mn	C	P	S	Si	Cu	Ni	Cr	Al	As	Co	Mo	N	Sn	Ti	V	W
1	DSZU C013	28.8	0.89	0.025	(0.002)	0.29	0.108	(0.20)	(0.14)	(8.6)	.	.	(0.46)	(0.002)	.	.	(0.1)	.
1	VS LG68	28.8	0.89	(0.02)	0.003	.	0.11	0.20	0.13	8.6	.	.	0.46	.	.	.	.	.
1	IMZ 199	28.74	0.90	0.022	(0.0006)	0.294	0.110	0.20	0.164	8.65	.	.	0.43	.	.	(0.004)	0.026	.
2	CZ SP-2D	26.90	1.369	0.0725	0.0031	0.558	0.106	0.388	1.507	0.0043	(0.0031)	0.0432	0.391	0.0203	(0.0026)	0.0213	0.178	0.083
1	IRSID 1833	22.57	0.605	0.0345	(0.0005)	0.193	0.030	0.0494	0.268	0.0025	0.0034	0.0089	0.0133	0.012	0.0043	0.0011	0.203	.
1	14X MN1AL	22.08	0.597	0.053	0.0054	0.944	0.178	0.692	1.321	(0.23)	.	.	0.499	0.0585	0.0393	0.0346	0.0226	.
1	DSZU C012	20.9	0.39	0.021	0.0072	0.31	0.087	0.103	0.17	(2.9)	.	.	(0.03)	(0.013)	.	.	(1.14)	.
2	BS 17	19.59	0.63	0.047	0.007	0.21	0.075	0.03	1.46	(0.02)	.	.	0.46	.	(0.012)	.	(0.02)	.
2	BS 17A	19.38	0.588	0.043	0.005	0.22	0.135	0.060	1.37	0.052	.	0.013	0.52	0.038	0.012	.	0.016	.
1	NCS AH37335	18.70	1.30	0.048	0.007	0.457	0.021	0.593	2.00	(0.011)	.	.	0.249	0.024	.	0.006	0.201	0.077
1	VS LG69	18.6	0.45	0.033	0.0048	0.50	0.088	0.178	0.428	2.78	.	.	0.020	0.011	.	.	.	.
1	DSZU C011a	17.4	0.45	0.042	0.008	0.43	0.089	0.11	0.36	(2.8)	.	.	(0.014)	.	.	.	.	.
1	IMZ 301	17.12	0.45	0.013	0.013	0.56	0.021	0.244	1.14	.	0.0030	0.009	.	0.028	.	0.0015	0.006	.
1	NCS AH37334	16.90	1.20	0.051	0.011	0.655	0.024	0.200	2.20	0.018	.	.	0.180	0.021	.	0.125	0.253	0.091
1	IMZ 198	16.10	0.44	0.031	0.0090	0.423	0.104	0.058	0.30	2.80	.	.	(0.008)	.	.	(0.005)	.	.
1	DSZU C011	16.09	0.44	0.031	0.0093	0.41	0.105	0.058	0.30	(2.6)	.	.	(0.01)	(0.010)	.	.	.	.
2	CZ SP-2C	14.5	1.40	0.037	0.016	0.29	0.35	0.050	1.56	0.030	(0.005)	0.044	0.050	0.027	0.037	0.014	0.051	0.033
2	HRT FE2022-H	14.08	0.669	(0.008)	(0.0035)	0.149	0.035	3.09	0.142	(0.0069)	.	0.011	0.013	(0.0106)	(0.0036)	(0.0019)	(0.018)	(0.0130)
1	14X MN4-21	13.80	0.897	0.058	0.0069	0.95	0.446	1.18	2.00	(0.2060)	0.007	0.014	0.832	0.082	0.077	0.056	0.042	0.005
1	DSZU C023	13.09	0.79	0.052	0.0062	0.291	0.111	3.15	0.313	(0.006)	.	.	(0.02)	(0.018)	.	(0.004)	(0.02)	.
1	DSZU C022	12.89	1.15	0.087	0.0057	0.34	0.103	0.122	0.192	(0.007)	.	.	(0.03)	(0.013)	.	(0.006)	(0.03)	.
1	NCS AH37333	12.46	1.23	0.061	0.009	0.428	0.017	3.34	1.72	0.022	.	0.009	0.951	0.024	.	0.064	0.085	.
1	14X MN2S	12.3	0.80	0.024	0.0080	2.20	0.089	0.726	0.364	0.020	.	.	1.08	0.038	0.0150	0.018	0.089	.
1	DSZU C010	12.25	1.20	0.082	0.0035	0.49	0.120	0.108	0.187	(0.006)	.	.	(0.01)	(0.017)	.	.	.	.
1	SS 493/3	11.15	0.819	0.12	0.009	0.861	0.017	3.24	0.259	0.035	.	.	1.04	0.025	.	.	0.025	.
1	14X MN3U	10.2	1.09	0.0239	0.015	1.11	0.135	0.387	0.599	0.045	.	.	0.343	0.025	0.0254	(0.10)	0.022	.
1	DSZU C020	8.85	0.97	0.024	(0.015)	0.091	0.53	1.36	0.96	(0.004)	.	.	0.13	(0.020)	.	(0.003)	0.152	.
1	14X MN5U	8.78	1.36	0.0552	0.0273	1.47	0.691	2.10	3.18	0.0257	.	.	1.93	0.0231	0.0228	0.93	0.0490	.
2	BS 19A	8.76	1.57	0.092	0.009	1.46	0.51	1.48	3.75	0.057	.	0.014	1.97	0.039	0.037	.	0.10	.
1	SS 492/3	8.33	1.18	0.0318	0.0093	0.299	0.0211	4.17	1.076	0.131	(0.002)	0.0048	1.318	0.0225	.	0.0024	(0.004)	.
1	14X MN5V	8.02	1.42	0.057	0.0207	2.27	0.551	3.09	3.28	0.145	.	.	2.26	0.0146	0.0278	0.51	0.0810	.
1	12X 354B	5.03	0.252	0.0478	0.0105	0.200	0.0679	0.082	0.0487	0.0150	0.023	0.0237	0.0328	0.0027	0.0154	0.0248	0.0204	0.0248
1	VS UG146	2.42	0.77	(0.05)	0.028	1.99	0.593	1.39	0.186	0.017	0.056	0.0128	0.271	0.017	.	0.075	0.062	0.028
1	IARM 196A	2.40	1.08	0.040	0.014	0.35	0.25	0.61	2.35	0.015	0.025	0.013	0.129	0.0084	0.033	0.014	0.157	0.189
2	BS 40B	2.28	0.71	0.020	0.006	0.35	0.076	0.089	1.18	0.002	0.004	0.020	1.07	0.0076	0.005	0.002	0.10	0.11
2	CZ CM-9B	2.27	0.17	(0.008)	(0.010)	0.89	0.040	0.023	1.36	0.049	(0.002)	(0.004)	(0.002)	.	(0.003)	(0.002)	(0.006)	.
2	DSZU C043A	2.14	0.222	0.060	0.064	0.131	0.51	2.93	0.49	0.066	(0.001)	.	0.146	(0.009)	0.0023	0.041	0.25	0.092
1	BS 1762A *	2.09	0.37	0.047	0.043	0.45	0.16	1.19	0.90	0.064	0.030	0.070	0.37	<0.05	0.080	0.12	0.22	0.032

Number	B	Bi	Ca	Ce	Fe	La	Mg	Nb	O	Pb	Sb	Ta	Zn	Zr	Units	Comment
DSZU C013	.	.	.	.	.	.	.	(0.46)	.	.	.	.	.	.	Disc ~39 mm Ø x 20 mm	
VS LG68	.	.	.	.	.	.	.	0.46	.	.	.	.	.	.	Disc ~39 mm Ø x ~19mm	
IMZ 199	(0.001)	.	.	.	.	.	.	0.43	.	.	.	.	.	.	Disc 56 mm Ø x 15 mm	
CZ SP-2D	(0.0008)	.	.	.	.	.	.	0.0163	.	.	.	.	.	.	Disc 37 mm Ø x 25 mm	
IRSID 1833	(0.00017)	.	.	.	.	.	.	0.0026	.	0.00007	(0.0005)	.	(0.0014)	.	Disc 35 mm Ø x 25 mm	
14X MN1AL	.	.	.	.	.	.	.	0.096	.	.	.	(0.011)	.	.	Disc ~40 mm Ø x ~15 mm	
DSZU C012	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~39 mm Ø x 20 mm	
BS 17	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 32 mm Ø x various mm	last
BS 17A	.	.	.	.	.	.	.	0.06	.	.	.	.	.	.	Disc 32 mm Ø x 17 mm	
NCS AH37335	.	.	.	0.011	.	.	.	0.077	.	.	.	.	.	.	Disc 36 mm Ø x 36 mm	
VS LG69	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~39 mm Ø x ~19mm	
DSZU C011a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 20 mm	
IMZ 301	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 44 mm Ø x 35 mm	
NCS AH37334	.	.	.	0.027	.	0.014	.	0.085	.	.	.	.	.	.	Disc 36 mm Ø x 36 mm	
IMZ 198	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 50 mm Ø x 15 mm	
DSZU C011	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~39 mm Ø x 20 mm	
CZ SP-2C	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~39 mm Ø x 25 mm	
HRT FE2022-H	(0.0008)	.	.	.	.	.	.	(0.006)	.	.	.	.	.	.	Disc 35 mm Ø X 20 mm	
14X MN4-21	(0.0029)	.	.	.	Rem	.	.	0.182	(0.0026)	.	.	(0.0104)	.	.	Disc ~40 mm Ø x ~15 mm	
DSZU C023	(0.001)	.	.	.	.	.	.	(0.02)	.	.	.	.	.	.	Disc ~39 mm Ø x 20 mm	
DSZU C022	(0.001)	.	.	.	.	.	.	(0.01)	.	.	.	.	.	.	Disc ~39 mm Ø x 20 mm	
NCS AH37333	.	.	.	0.029	.	0.017	.	0.108	.	.	.	.	.	.	Disc 36 mm Ø x 36 mm	
14X MN2S	.	.	.	.	.	.	.	0.23	.	.	.	(0.006)	.	.	Disc ~40 mm Ø x ~15 mm	
DSZU C010	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~39 mm Ø x 20 mm	
SS 493/3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Block 48 mm x 42 mm x 12 mm	
14X MN3U	.	.	.	.	.	.	.	0.398	.	.	.	0.010	.	.	Disc ~40 mm Ø x ~15 mm	
DSZU C020	(0.002)	.	.	.	.	.	.	(0.02)	.	.	.	.	.	.	Disc ~39 mm Ø x 20 mm	
14X MN5U	.	.	.	.	.	.	.	0.102	.	.	.	(0.007)	.	.	Disc ~40 mm Ø x ~15 mm	
BS 19A	.	.	.	.	.	.	.	0.040	.	.	.	.	.	.	Disc 32 mm Ø x 17 mm	
SS 492/3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Block 48 mm x 42 mm x 12 mm	
14X MN5V	.	.	.	.	.	.	.	0.041	.	.	.	(0.004)	.	.	Disc ~40 mm Ø x ~15 mm	
12X 354B	.	.	.	.	.	.	.	0.0802	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
VS UG146	0.0019	0.0038	0.0023	0.009	.	.	.	0.047	.	0.011	.	0.029	0.0098	.	Disc ~37 mm Ø x ~20 mm	
IARM 196A	0.0017	.	0.0002	.	.	.	.	0.087	0.0021	0.001	0.006	.	.	0.006	Disc 31 mm Ø x 18 mm	
BS 40B	0.0006	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 41 mm Ø x ~7 or 19+ mm	
CZ CM-9B	(0.004)	.	.	.	.	.	.	(0.06)	.	(0.002)	(0.003)	.	.	(0.003)	Disc ~39 mm Ø x 25 mm	
DSZU C043A	(0.001)	.	0.0004	.	.	.	.	0.006	.	.	.	.	.	.	Disc 40 mm Ø x 25 mm	
BS 1762A *	0.003	* Provisional Analysis	[93.7]	.	.	.	.	0.10	<0.05	.	0.013	0.034	.	0.033	Disc 36 mm Ø x 25 mm	

Number	B	Bi	Ca	Ce	Fe	La	Mg	Nb	O	Pb	Sb	Ta	Zn	Zr	Units	Comment
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RESULTURIZED STEEL

CONTINUED FROM THE PREVIOUS PAGE

Number	B	Bi	Ca	Fe	Nb	O	Pb	Sb	Se	W	Zn	Zr	Units	Comment
14X FeNi40C	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
IMZ 123	.	.	.	.	.	.	0.030	0.030	.	.	.	.	Disc 40 mm Ø x 40 mm	
ECRM 085-1D	.	.	.	.	.	.	0.0010	0.0073	.	.	0.0025	.	Disc 38 mm Ø x 25 or 30 mm	
14X 12144A	.	.	.	.	.	.	0.328	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
IARM Fe1144-22	.	.	.	.	.	(0.002)	.	0.0017	.	0.0017	.	.	disc	
BS 66K	.	.	.	.	.	.	.	.	.	.	.	.	Disc 41 mm Ø x ~7 or 19+ mm	
CZ CM-15C	.	.	.	.	.	.	0.29	.	.	.	.	.	Disc ~39 mm Ø x 25 mm	
BS 74B	.	.	.	.	.	.	0.34	.	.	.	.	.	Disc 41 mm Ø x ~7 or 19+ mm	
BS 66L	(<0.0003)	.	(<0.0010)	.	(0.0012)	.	0.0007	0.0021	.	(<0.0010)	.	.	Disc 44 mm Ø x ~7 or 19+ mm	17025
14X 12130A	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
BS 74C	.	.	.	.	(<0.005)	.	0.328	.	.	.	.	.	Disc 41 mm Ø x ~7 or 19+ mm	17025
IARM Fe1215-18	.	.	.	.	0.0012	.	.	0.0018	.	.	.	.	Disc ~38 mm Ø x ~3 or ~19 mm	
IARM 199C	0.0012	(0.003)	(0.0011)	.	0.0016	0.0037	(0.001)	(0.003)	.	0.0023	(0.0006)	.	Disc 31 mm Ø x 2(ok) or 18(last) mm	
BS 74D	0.0009	.	<0.001	98.2	(0.0018)	(0.028)	0.282	<0.05	.	<0.005	.	(0.0009)	Disc 41 mm Ø x ~7 or 19+ mm	17034
IMZ 124	.	.	.	.	.	.	(0.002)	0.002	.	.	.	.	Disc 40 mm Ø x 40 mm	
BS 1144A	(0.0003)	.	(0.0005)	97.3	(0.002)	0.0019	(0.0006)	(0.002)	.	(0.0009)	.	(0.0006)	Disc 38 mm Ø x ~7 or 19+ mm	17025
14X MSFM4A	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm	
IMZ 122	.	.	.	.	.	.	(0.020)	0.019	.	.	.	.	Disc 40 mm Ø x 40 mm	
14X 606M36TA	.	.	.	.	.	.	.	.	.	.	.	.	Disc 41 mm Ø x 2 or 18 mm	
14X 11390A	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
ECRM 058-2D	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 25 or 30 mm	
14X MSFM3G	0.0043	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
BS A-11	0.0008	.	(0.0002)	79.5	(0.0070)	0.028	(0.00006)	(0.001)	.	(0.080)	.	(0.001)	Disc 38 mm Ø x ~7 or 19+ mm	17025
IARM 29E	0.0007	.	0.0012	.	0.0024	(0.005)	(0.001)	(0.003)	(0.0006)	.	(0.004)	.	Disc 31 mm Ø x ~7 or 18 mm	
14X 11170A	.	.	.	.	.	.	0.0011	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
BS 75F	.	.	.	.	.	.	0.202	.	.	.	.	.	Disc 40 mm Ø x ~7 or 19+ mm	17025
BS 65C	.	.	.	.	.	.	.	.	.	.	.	.	Disc 37 mm Ø x ~7 or 19+ mm	
BS 75G	(0.0002)	.	(0.0002)	[98.2]	(0.0003)	0.0155	0.247	.	.	0.0004	.	.	Disc 41 mm Ø x ~7 or 19+ mm	17025
BS 66B	0.0003	.	.	.	.	.	.	.	.	.	.	.	Disc 41 mm Ø x ~7 or 19+ mm	
BS 1141 *	0.0004	*Provisional Analysis [97.4]			0.004	<0.05	<0.005	<0.005	.	0.002	.	0.0007	Disc 41 mm Ø x ~7 or 19+ mm	
IARM 348A	(0.0013)	<0.02	0.0010	.	0.027	(0.003)	(0.002)	(0.003)	<0.005	(0.009)	<0.003	(0.003)	Disc 31 mm Ø X 2 or 18 mm	
12X 352E	.	.	.	.	0.063	.	.	.	.	0.275	.	.	Disc ~40 mm Ø x ~15 mm	
IMZ 121	.	.	.	.	.	.	0.011	0.017	.	.	.	.	Disc 40 mm Ø x 40 mm	
IARM 307A	<0.005	<0.02	<0.0005	.	(0.002)	(0.003)	(0.002)	<0.004	<0.006	(0.005)	<0.002	(0.002)	Disc 31 mm Ø X 2 or 18 mm	
IARM 307B	.	.	.	.	(0.0013)	.	.	.	.	.	.	.	Disc 31 mm Ø X 2 or 18 mm	
Number	B	Bi	Ca	Fe	Nb	O	Pb	Sb	Se	W	Zn	Zr	Units	Comment
BS 3993	.	.	(0.0002)	.	.	(0.0030)	.	.	.	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm	ISO 25
SRM 1173	.	.	.	.	.	.	.	.	.	.	.	.	Disc 32 mm Ø x 19 mm	
SRM C1173	.	.	.	.	.	.	.	.	.	.	.	.	Disc 32 mm Ø x 19 mm	
12X 15260X	.	.	.	.	0.183	.	0.0012	.	.	.	.	0.0054	Disc ~40 mm Ø x ~15 mm	
12X 15253T	.	.	.	.	0.374	.	.	.	.	0.276	.	.	Disc ~40 mm Ø x ~15 mm	Ta: 0.007
KUT A12	.	.	.	.	(0.03)	.	.	0.013	.	.	.	.	Disc 30-35 mm Ø x 39 mm	
IRSID 1745	.	.	.	.	.	.	.	.	.	.	(0.003)	.	Disc 48 mm Ø x 30 mm	
BS 4150MOD	.	0.070	0.0010	.	.	(0.003)	0.0010	.	.	.	.	.	Disc 38 mm Ø x ~7 mm	last
BS 8620A	.	0.073	0.0003	.	.	(0.004)	(0.001)	.	.	.	.	.	Disc 38 mm Ø x ~7 mm	last
BS 10V	.	.	.	.	.	.	.	.	.	0.013	.	.	Disc 41 mm Ø x ~7 or 19+ mm	
IRSID 1750	(0.0002)	(0.00002)	(0.0002)	.	(0.0010)	.	(0.001)	0.0031	(0.0002)	(0.004)	(0.0012)	(0.0002)	Disc 38 mm Ø x 25 mm	
BS 42	<0.005	.	<0.005	96.6	(0.0012)	(0.003)	<0.005	.	.	<0.005	.	.	Disc 44 mm Ø X ~7 to 19 mm	17034, last
SS 604/2	.	.	.	.	.	.	.	.	.	.	.	(0.0005)	Disc 44 mm Ø X 19 mm	
VS UG144	0.0043	.	.	.	0.018	.	0.0017	(0.01)	.	1.32	0.0012	0.068	Disc ~37 mm Ø x ~20 mm	Ce: 0.004
SS 405/1	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 19 mm	
12X 15255R	.	.	.	.	0.203	.	.	.	.	0.143	.	(0.011)	Disc ~40 mm Ø x ~15 mm	Ta: 0.034
BS TS15	(0.0005)	.	(0.001)	71.4	0.009	(0.018)	.	.	.	11.6	.	(0.003)	Disc 38 mm Ø x ~7 or 19+ mm	17034
12X 12749X	.	.	.	.	.	.	0.016	.	.	0.036	.	.	Disc ~40 mm Ø x ~15 mm	
DSZU C050	(0.002)	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 25 mm	
DSZU C043A	(0.001)	.	0.0004	.	0.006	.	.	.	.	0.092	.	.	Disc 40 mm Ø x 25 mm	
KUT B2/2	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x 39 mm	
12X 12746V	.	.	.	.	.	.	.	.	.	0.105	.	.	Disc ~40 mm Ø x ~15mm	
IARM 168A	0.0004	.	.	.	0.003	0.0008	(0.01)	.	.	0.52	.	.	Disc 31 mm Ø x 2 mm	
BS 4150MOD-A	(0.0004)	.	(0.0007)	96.7	(0.002)	0.0017	(0.0004)	(0.002)	.	0.0026	.	(0.0005)	Disc 38 mm Ø x ~7 or 19+ mm	17034
IARM FEM4-18	.	.	.	79.0	.	.	.	.	.	5.55	.	.	Disc ~38 mm Ø x ~3 or ~19 mm	
12X 1A1B	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
VS UG145	0.0019	0.0052	0.0006	.	0.102	.	0.021	.	.	0.162	0.0017	0.008	Disc ~37 mm Ø x ~20 mm	
CZ CM-6A	0.015	.	.	.	0.028	.	0.017	0.03	.	0.04	.	0.04	Disc ~39 mm Ø x 25 mm	
IARM 251A	(0.002)	.	(0.0005)	.	0.016	(0.01)	(0.002)	.	.	5.5	.	(0.002)	Disc 31 mm Ø x 2 mm	
SRM 1138a	.	.	.	.	.	.	.	.	.	.	.	.	Disc 32 mm Ø x 13 mm	
SS 603/2	.	.	.	.	.	.	.	.	.	.	.	(0.0005)	Disc 44 mm Ø X 19 mm	
DSZU C070	.	.	.	.	.	.	.	.	.	0.29	.	.	Disc ~40 mm Ø x ~15 mm	
Number	B	Bi	Ca	Fe	Nb	O	Pb	Sb	Se	W	Zn	Zr	Units	Comment

SILICON STEEL

CONTINUED FROM THE PREVIOUS PAGE

Number	B	Ca	Ce	Fe	Mg	Nb	O	Pb	Sb	Ta	W	Zn	Zr	Units	Comment
CZ SST-4A	0.0006	.	.	.	.	.	.	0.008	(0.003)	.	0.026	(0.002)	(0.003)	Disc ~37 mm Ø x 25 mm	
CZ CM-12C	0.0033	0.0010	.	.	.	0.0066	.	.	.	.	(0.004)	.	.	Disc ~37 mm Ø x ~25 mm	
CZ SST-3A	0.0019	.	.	.	.	.	.	0.013	.	.	0.016	0.011	.	Disc ~37 mm Ø x 25 mm	
ECRM 191-3D	0.00024	.	.	.	0.0036	.	.	.	.	.	.	.	.	Disc ~30 mm Ø x ~39 mm	
SRM 1135	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 31 mm Ø x 19 mm	
CZ SST-2A	0.0089	.	.	.	.	.	.	0.015	0.008	.	0.019	0.011	0.017	Disc ~37 mm Ø x 25 mm	
SRM 1134	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 31 mm Ø x 19 mm	
CZ SST-1A	0.0003	.	.	.	.	.	.	(0.002)	(0.002)	.	.	.	.	Disc ~37 mm Ø x 25 mm	
VS RG28/1	.	.	.	.	.	0.041	.	.	.	.	0.0041	.	.	Disc ~45 mm Ø x ~28 mm	
14X MN5V	.	.	.	.	.	0.041	.	.	.	(0.004)	.	.	.	Disc ~40 mm Ø x ~15 mm	
14X MN2S	.	.	.	.	.	0.23	.	.	.	(0.006)	.	.	.	Disc ~40 mm Ø x ~15 mm	
BS 38C	.	.	.	.	.	(0.002)	.	0.022	.	.	0.004	.	.	Disc 38 mm Ø x ~7 or 19+ mm	
12X 15251U	.	.	.	.	.	0.266	.	.	.	.	0.0393	.	.	Disc ~40 mm Ø x ~15 mm	
VS UG146	0.0019	0.0023	0.009	.	.	0.047	.	0.011	.	0.029	0.028	0.0098	.	Disc ~37 mm Ø x ~20 mm	Bi: 0.0038
VS UG92	.	.	.	.	.	0.034	.	0.00017	0.0005	.	.	.	.	Disc ~47 mm Ø x ~30 mm	Als: 0.08
KUT T4/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x 39 mm	last
IARM 47B	(<0.001)	.	.	.	.	(0.002)	(0.0014)	(0.0003)	.	.	(0.016)	.	.	Disc 31 mm Ø x 2 or 18 mm	
CZ CM-2B	0.0010	.	.	.	.	(0.58)	.	0.087	0.020	.	0.22	.	0.013	Disc ~37 mm Ø x ~25 mm	
DSZU C047A	0.0006	0.0022	.	.	.	0.020	.	.	.	.	2.37	.	.	Disc 40 mm Ø x 25 mm	
DSZU C080	.	.	.	.	.	.	.	.	.	.	3.40	.	.	Disc ~35 mm Ø x 20 or 25 mm	
ECRM 196-2D	0.00014	0.00071	.	.	0.00075	.	.	.	.	.	.	0.00019	.	Disc 38 mm Ø x 25 mm	
VS UG4/5	.	.	.	.	.	0.053	.	.	.	.	0.14	.	.	Disc ~45 mm Ø x ~28 mm	
VS UG1/11	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~28 mm	
ECRM 186-1D	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 25 or 30 mm	
BS 300A	(0.00032)	0.0008	.	93.8	<0.0005	(0.002)	<0.01	<0.0005	0.0011	0.0022	<0.01	.	(0.002)	Disc 38 mm Ø x ~7 or 19+ mm	17034
SS 405/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 19 mm	
IMZ 56/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
CZ CM-2A	0.0005	.	.	.	.	0.48	.	0.06	0.008	0.027	0.23	.	0.03	Disc ~39 mm Ø x 25 mm	last
BS 300B *	<0.005	<0.005	* Provisional Analysis	.	.	0.003	<0.005	<0.005	<0.05	<0.05	0.001	.	0.001	Disc 38 mm Ø x ~7 or 19+ mm	last
BS 4340M	.	.	.	.	.	.	(0.001)	.	.	.	.	.	.	Disc 37 mm Ø x ~7 mm	last
IARM Fe300M-22	.	.	.	.	.	.	.	.	.	.	0.0115	.	.	disc	
VS UG111	.	.	.	.	.	.	.	.	.	.	0.056	.	.	Disc ~45 mm Ø x ~25 mm	
IARM 340A	0.0004	(0.0004)	.	.	(0.0002)	0.015	(0.001)	(0.001)	0.0021	.	(0.005)	(0.001)	(0.002)	Disc 31 mm Ø x 2 mm	
IARM 342A	0.0004	(0.0001)	.	.	(0.0002)	(0.002)	0.0006	0.0008	0.0021	.	(0.005)	(0.001)	(0.002)	Disc 31 mm Ø x 2 or 18 mm	
VS UG119	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~25 mm	
VS UG4/10	.	.	.	.	.	0.030	.	.	.	.	0.006	.	.	Disc ~45 mm Ø x ~28 mm	
KUT B1/1	.	.	.	.	.	0.0022	.	.	.	.	.	.	0.001	Disc 30-35 mm Ø x 39 mm	
BS 6418	0.0004	0.0002	.	[94.1]	0.0004	0.0022	0.0011	<0.005	(0.003)	<0.05	<0.05	.	<0.005	Disc 57 mm Ø x ~7 or 19+ mm	17034
14X MN5U	.	.	.	.	.	0.102	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
BS 19A	.	.	.	.	.	0.040	.	.	.	.	.	.	.	Disc 32 mm Ø x 17 mm	
Number	B	Ca	Ce	Fe	Mg	Nb	O	Pb	Sb	Ta	W	Zn	Zr	Units	Comment
SS 409/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 19 mm	
IMZ 52/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
SRM CL173	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 32 mm Ø x 19 mm	
CZ CM-14C	0.0249	.	.	.	.	0.248	.	0.0090	0.0170	.	0.0238	.	0.037	Disc 37 mm Ø x 25 mm	
BS H1Cal-1	(0.0001)	0.0140	.	[91.9]	(0.0003)	(0.002)	.	(0.0005)	.	.	(0.0009)	.	(0.0008)	Disc ~38 mm Ø x ~30 mm	17025
CZ LA-3G	0.0039	0.0016	.	.	.	0.071	.	0.0098	0.024	.	0.105	.	0.068	Disc ~37 mm Ø x ~25 mm	
IARM 172A	0.0003	(0.0001)	.	.	.	0.004	0.0006	<0.01	.	.	0.038	.	<0.005	Disc 31 mm Ø x 2 mm	
SRM 1173	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 32 mm Ø x 19 mm	
BS 69B	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm	
VS UG143	0.0010	0.0015	0.019	.	.	0.014	.	0.0074	0.010	.	0.48	0.013	0.198	Disc ~37 mm Ø x ~20 mm	BI: 0.008
VS UG4/6	.	.	.	.	.	(0.03)	.	(0.005)	<0.0005	.	0.111	.	.	Disc ~45 mm Ø x ~28 mm	
VS UG1/5	.	.	.	.	.	0.078	.	.	.	.	(0.01)	.	.	Disc ~45 mm Ø x ~28 mm	
DSZU C046	(0.0004)	0.0007	.	.	.	(0.005)	.	.	.	.	0.47	.	.	Disc 40 mm Ø x 25 mm	
KUT A12	.	.	.	.	.	(0.03)	.	.	0.013	.	.	.	.	Disc 30-35 mm Ø x 39 mm	
VS RG28	.	.	.	.	.	0.029	.	.	.	.	0.006	.	.	Disc ~45 mm Ø x ~28 mm	
BS A-10	.	.	.	.	.	.	.	.	.	.	<0.005	.	.	Disc 40 mm Ø x ~7 or 19+ mm	
IMZ 173	.	.	.	.	.	.	.	.	.	.	0.10	.	.	Disc 40 mm Ø x 40 mm	
BS H-13A	(0.0007)	(0.0006)	.	90.2	(0.0002)	0.0052	(0.016)	(0.0004)	(0.002)	.	0.100	.	(0.002)	Disc 38 mm Ø x ~7 or 19+ mm	17034
SS 404/2	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 19 mm	
14X MN3U	.	.	.	.	.	0.398	.	.	.	0.010	.	.	.	Disc ~40 mm Ø x ~15 mm	
DSZU C081	.	.	.	.	.	.	.	.	.	.	0.05	.	.	Disc ~35 mm Ø x 25 mm	
BS 34D	.	.	.	.	.	.	.	.	.	.	0.10	.	.	Disc 41 mm Ø x ~7 mm	last
IMZ 102/3	(0.0007)	.	.	.	.	.	.	.	.	.	.	.	(0.007)	Disc 40 mm Ø x 40 mm	
ECRM 274-1D	(0.0005)	.	.	.	.	.	(0.0026)	(0.000064)	(0.0002)	.	0.0087	.	.	Disc 38 mm Ø x 25 mm	
CT H13	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm	
ECRM 276-2D	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 25 or 30 mm	
BS 41	.	.	.	.	.	.	.	.	.	.	0.035	.	.	Disc 42 mm Ø x ~7 or 19+ mm	17025
IARM 45A	(0.0001)	.	.	.	.	0.002	(0.0017)	<0.005	.	.	.	.	.	Disc 31 mm Ø x 2 mm	
12X 15255R	.	.	.	.	.	0.203	.	.	.	0.034	0.143	.	(0.011)	Disc ~40 mm Ø x ~15 mm	
12X 15258P	0.0100	.	.	.	.	0.133	.	.	.	(0.002)	0.125	.	.	Disc ~40 mm Ø x ~15 mm	
BS A-11	0.0008	(0.0002)	.	79.5	(0.0005)	(0.0070)	0.028	(0.00006)	(0.001)	.	(0.080)	.	(0.001)	Disc 38 mm Ø x ~7 or 19+ mm	17025
BS 41A	.	0.0006	.	.	.	.	0.002	.	.	.	<0.003	.	.	Disc 38 mm Ø x ~7 or 19+ mm	ISO 25
SS 603/2	.	.	.	.	.	.	.	.	.	.	.	.	<0.005	Disc 44 mm Ø x 19 mm	
VS UG120	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~25 mm	
VS UG6/11	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~28 mm	
14X MN4-21	(0.0029)	.	.	Rem	.	0.182	(0.0026)	.	.	(0.0104)	0.005	.	.	Disc ~40 mm Ø x ~15 mm	
14X MN1AL	.	.	.	.	.	0.096	.	.	.	(0.011)	.	.	.	Disc ~40 mm Ø x ~15 mm	
VS UG35/2	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~28 mm	
CZ CM-23A	0.0129	0.0004	.	.	.	0.628	.	0.0034	0.137	(0.051)	0.104	0.0250	0.137	Disc 37 mm Ø x 25 mm	
SS 113	0.0066	.	.	.	.	0.0487	.	.	.	.	0.012	.	0.0029	Disc 44 mm Ø x 19 mm	
IARM 255A	0.0004	(0.0004)	.	.	.	0.004	0.0011	<0.001	.	.	0.007	.	<0.005	Disc 31 mm Ø x 2 mm	
IMZ 174	.	.	.	.	.	.	.	.	.	.	0.021	.	.	Disc 40 mm Ø x 40 mm	
ECRM 271-1D	.	0.0009	.	.	.	.	0.0020	.	.	.	0.0054	.	.	Disc 35 mm Ø x 25 mm	
BS 49	.	.	.	.	.	.	.	.	.	.	0.31	.	.	Disc 49 mm Ø x ~7 or 19+ mm	
BS TH12	.	.	.	.	.	.	.	.	.	.	1.06	.	.	Disc 38 mm Ø x ~7 mm	last
IARM 45B	(0.0001)	(0.001)	.	.	.	(0.002)	(0.0005)	(0.001)	(0.001)	.	(0.004)	.	(0.001)	Disc 31 mm Ø x 2 or 18 mm	
BS PM15	(0.0002)	(0.0001)	.	[73.0]	(0.0002)	0.014	0.0129	(0.00001)	(0.0010)	(0.0003)	.	.	(0.0005)	Disc 38 mm Ø x 19+ mm	17025
13X 14713A	.	.	.	.	0.0016	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
IARM 255B	.	.	.	.	.	(0.006)	.	.	.	.	.	.	.	Disc 31 mm Ø x 2 or 18 mm	
Number	B	Ca	Ce	Fe	Mg	Nb	O	Pb	Sb	Ta	W	Zn	Zr	Units	Comment

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= Class, where 1 = CRM, 2 = RM, and 3 = RM with no uncertainties

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	Mo	N	Sn	Ti	V
1	VS UG143	1.52	1.41	0.013	0.0039	1.26	0.112	2.61	0.241	0.320	.	0.0054	0.046	0.0057	0.059	0.084	0.094
1	VS UG0/9	1.33	0.208	0.0040	0.0045	0.170	0.307	0.36	0.55	0.139	.	(0.001)	0.024	0.0022	(0.0008)	0.029	0.0087
1	VS UG0/10	1.321	0.268	0.0090	0.0044	0.244	0.265	0.353	0.596	0.101	.	.	0.052	0.0120	0.0043	0.017	0.0037
1	VS UG0/5	1.32	(0.2)	(0.01)	(0.007)	(0.2)	0.265	0.351	0.60	0.108	.	.	(0.05)	.	.	(0.01)	(0.01)
1	SS 402/2	1.311	0.288	0.0161	0.0138	0.111	0.302	0.808	0.652	0.161	.	.	0.140	0.0069	.	.	0.194
1	IMZ 65/2	1.19	0.27	0.013	0.007	0.13	0.059	0.067	0.079	0.030	.	.	.	.	.	.	.
1	DS2U C049	1.17	0.237	0.0166	0.0147	0.227	0.069	0.044	0.131	(0.005)	.	(0.004)	(0.002)	(0.007)	(0.004)	(0.003)	(0.003)
1	KUT A18	1.01	0.36	0.011	0.012	0.26	0.070	0.072	1.37	0.019	.	0.003	0.024	0.0086	0.008	0.011	0.010
1	VS UG0/11	1.16	(1.99)	0.014	0.007	0.15	0.066	0.125	0.90	(0.02)	.	.	0.011	0.005	0.0051	0.0041	0.0035
2	CZ LA-4D	1.143	1.266	0.028	0.0091	0.181	0.066	0.367	1.83	0.067	.	0.010	0.136	0.0064	0.014	0.0154	0.103
3	CZ CM-5B	1.09	1.28	0.021	0.012	0.39	0.13	0.23	2.07	0.083	.	0.018	0.10	0.0135	0.012	0.02	0.06
1	IARM 196A	1.08	2.40	0.040	0.014	0.35	0.25	0.61	2.35	0.015	.	0.025	0.129	0.0084	0.033	0.014	0.157
2	CZ CM-5C	1.04	1.17	0.029	0.021	0.54	0.151	0.42	2.45	0.063	.	0.020	0.132	0.014	0.018	0.031	0.106
1	VS UG9/9	1.04	0.310	0.0053	0.021	0.319	0.163	0.242	0.310	0.073	.	(0.003)	0.308	0.0027	(0.001)	0.130	0.215
1	IARM 49E	1.03	0.364	(0.006)	(0.002)	0.248	0.076	0.043	1.43	0.024	.	0.0029	0.017	(0.003)	0.0065	0.0060	0.066
1	12X 52986A	1.023	0.372	0.0049	0.0011	0.246	0.077	0.0411	1.418	0.0258	.	(0.002)	0.0169	(0.002)	0.0063	.	0.0615
2	BS 53MOD	1.01	0.36	0.011	0.012	0.26	0.070	0.072	1.37	0.019	.	0.004	0.024	0.0086	0.008	.	0.005
1	NILAB 100LA D	1.002	0.333	0.012	0.018	.	0.019	0.027	1.517	0.005	.	0.004	0.012	0.0046	.	0.0007	0.004
1	BS E52100	0.99	0.371	0.011	0.004	0.270	0.090	0.066	1.54	0.019	.	0.0033	0.0209	0.0057	0.0049	(0.0010)	0.0046
2	BS A485-1	0.98	1.10	0.019	0.004	0.62	0.16	0.13	1.07	0.017	.	0.006	0.029	0.0060	0.011	0.003	0.003
1	KUT B15	0.98	0.69	0.030	0.031	0.80	0.14	0.15	3.70	0.13	.	.	1.20	.	.	(0.32)	(0.33)
1	VS UG75	0.98	0.286	0.0127	0.0089	0.248	0.111	0.201	1.43	(0.03)	.	.	(0.01)	.	.	(0.001)	(0.006)
1	VS UG127	0.962	0.93	0.020	0.029	0.427	0.145	0.151	0.188	0.0051	.	.	.	0.0155	.	0.0094	0.141
1	VS UG9/11	0.94	0.895	0.027	0.0085	0.312	0.163	0.354	0.985	(0.04)	.	.	0.094	0.0119	0.0064	0.010	0.048
1	12X 19965A	0.936	0.600	0.0196	0.0081	0.247	0.148	0.141	1.713	0.0256	.	.	0.210	0.0087	0.0070	.	0.0087
1	SS 401/2	0.935	1.19	0.026	0.0078	0.60	0.101	0.019	0.138	0.074	.	.	0.49	0.0159	.	.	0.496
1	IMZ 119	0.93	1.15	0.018	0.006	0.16	0.042	0.049	0.062	0.010	0.007	.	0.004	0.0086	.	(0.0007)	0.006
1	VS UG89	0.92	0.76	0.0085	0.01	0.385	0.373	0.51	0.420	0.01	0.007	0.0043	0.044	0.017	.	0.012	0.021
1	VS UG126	0.856	0.78	0.0128	0.0077	0.348	0.030	0.029	0.591	0.0015	.	.	.	0.0123	.	.	0.075
1	VS UG21/6	0.83	0.74	(0.02)	(0.02)	0.312	0.346	0.47	0.50	.	.	.	.	.	.	.	.
1	VS UG130	0.80	0.228	0.0078	0.0071	0.226	0.252	0.104	0.258	.	.	0.0093	.	.	.	.	.
1	VS UG146	0.77	2.42	(0.05)	0.028	1.99	0.593	1.39	0.186	0.017	.	0.056	0.271	0.017	.	0.075	0.062
1	ECRM 195-1D	0.757	0.571	0.017	0.012	0.467	0.036	0.33	1.56	.	.	.	0.77	0.010	.	.	0.31
1	SS 403/2	0.750	1.677	0.055	0.0381	0.209	0.221	0.223	0.463	0.0485	.	.	0.088	(0.010)	.	.	0.341
1	IMZ 64/2	0.75	0.47	0.012	(0.005)	0.22	0.12	0.081	0.090	0.020	.	.	.	.	.	.	.
2	CZ CM-1D	0.735	1.80	0.0218	0.026	0.341	0.186	0.547	0.456	0.024	.	.	0.100	0.0124	0.0144	0.054	0.089
1	VS UG8/11	0.718	1.97	0.036	0.0019	0.31	0.160	0.291	1.74	(0.01)	.	.	0.622	0.0138	0.0058	.	0.181
2	CZ CM-4B	0.72	0.50	0.023	0.012	0.80	0.40	1.40	2.23	0.025	.	0.015	0.33	0.013	0.028	0.12	0.18
1	IMZ 118	0.69	1.72	0.026	(0.049)	0.30	0.18	0.19	0.14	(0.014)	(0.004)	.	0.058	0.0120	0.22	.	0.059
1	12X LA5D	0.681	0.855	0.040	0.016	0.53	0.107	0.409	0.291	0.177	.	0.0101	0.206	.	0.0142	0.080	0.603
1	IMZ 116	0.64	0.94	0.025	0.035	0.25	0.33	0.022	0.72	0.025	0.012	.	0.074	0.0130	.	(0.0008)	0.076
1	SS 115	0.6224	0.682	0.0123	0.00093	0.2078	.	0.0196	0.0198	0.0527	.	.	.	0.0067	.	0.0027	.
1	VS UG1/11	0.61	0.667	0.0098	0.011	1.74	0.155	0.080	0.108	0.032	.	.	0.0067	0.0100	0.0035	0.0047	.

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	Mo	N	Sn	Ti	V
Number	B	Bi	Ca	Ce	Co	Fe	Mg	Nb	O	Pb	Sb	Ta	W	Zn	Zr	Units	Comment
VS UG143	0.0010	0.008	0.0015	0.019	0.0171	.	.	0.014	.	0.0074	0.010	.	0.48	0.013	0.198	Disc ~37 mm Ø x ~20 mm	last
VS UG0/9	(0.0002)	.	.	.	.	.	.	0.041	.	(0.002)	.	.	0.074	.	.	Disc ~45 mm Ø x ~28 mm	
VS UG0/10	.	.	.	.	.	.	.	0.0033	.	.	.	.	(0.006)	.	.	Disc ~45 mm Ø x ~28 mm	
VS UG0/5	.	.	.	.	.	.	.	(0.01)	.	.	.	.	(0.01)	.	.	Disc ~45 mm Ø x ~28 mm	
SS 402/2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 19 mm	
IMZ 65/2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
DSZU C049	(0.0002)	.	(0.003)	.	(0.003)	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 25 mm	
KUT A18	(0.011)	.	.	.	.	.	.	0.035	.	.	0.005	.	.	.	.	Disc 30-35 mm Ø x 39 mm	
VS UG0/11	.	.	.	.	0.0109	.	.	.	.	.	.	.	0.0032	.	.	Disc ~45 mm Ø x ~28 mm	
CZ LA-4D	.	.	.	.	0.037	.	.	0.0046	.	0.040	.	.	0.025	.	.	Disc ~37 mm Ø x ~25 mm	
CZ CM-5B	0.002	.	.	.	0.022	.	.	0.015	.	0.01	0.006	.	0.03	.	0.09	Disc ~39 mm Ø x 25 mm	
IARM 196A	0.0017	.	0.0002	.	0.013	.	.	0.087	0.0021	0.001	0.006	.	0.189	.	0.006	Disc 31 mm Ø x 18 mm	
CZ CM-5C	0.0012	.	(0.0006)	.	0.022	.	.	0.014	.	0.009	0.005	.	0.034	.	(0.07)	Disc ~39 mm Ø x 25 mm	
VS UG9/9	(0.0002)	.	.	.	.	.	.	0.0046	.	(0.002)	.	.	1.60	.	.	Disc ~45 mm Ø x ~28 mm	last
IARM 49E	.	.	.	.	(0.006)	.	.	(0.003)	(0.002)	.	.	.	.	.	.	Disc 31 mm Ø X 2 or 18 mm	
12X 52986A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~38 mm Ø x ~15 mm	
BS 53MOD	.	0.102	(0.001)	.	0.007	.	.	.	(0.002)	0.0005	.	.	.	.	.	Disc 38 mm Ø x ~12 to 19 mm	
NILAB 100LA D	.	.	.	.	0.007	.	.	.	.	.	.	.	.	.	.	Disc 34 mm Ø x 20 mm	
BS E52100	.	.	0.0006	.	0.0067	96.6	<0.0005	(0.0010)	0.0009	<0.0005	0.0011	.	(0.0015)	.	<0.005	Disc 38 mm Ø x ~7 or 19+ mm	17034
BS A485-1	.	.	.	.	0.010	.	.	.	(0.0008)	.	.	.	.	.	.	Disc 39 mm Ø x ~7 or 19+ mm	
KUT B15	.	.	.	.	0.21	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x 39 mm	
VS UG75	.	.	.	.	.	.	.	(0.01)	.	.	.	.	(0.02)	.	.	Disc ~40 mm Ø x ~26 mm	
VS UG127	.	0.011	.	.	.	.	.	.	.	0.0049	.	.	.	.	.	Disc ~38 mm Ø x ~20 mm	
VS UG9/11	.	.	.	.	.	.	.	.	.	.	.	.	1.27	.	.	Disc ~45 mm Ø x ~28 mm	
12X 19965A	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0008	.	Disc ~41 mm Ø x ~15 mm	
SS 401/2	.	.	.	.	0.0042	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 19 mm	
IMZ 119	.	.	(0.0002)	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
VS UG89	.	.	.	.	.	.	.	0.0043	.	0.0003	0.0011	.	.	.	.	Disc ~47 mm Ø x ~30 mm	
VS UG126	.	0.0055	.	.	.	.	.	.	.	0.009	.	.	.	.	.	Disc ~38 mm Ø x ~20 mm	
VS UG21/6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~28 mm	
VS UG130	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~39 mm Ø x ~25 mm	
VS UG146	0.0019	0.0038	0.0023	0.009	0.0128	.	.	0.047	.	0.011	.	0.029	0.028	0.0098	.	Disc ~37 mm Ø x ~20 mm	
ECRM 195-1D	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 25 or 30 mm	
SS 403/2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 19 mm	
IMZ 64/2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
CZ CM-1D	0.0017	.	.	.	0.029	.	.	0.050	.	.	0.0112	.	0.063	.	.	Disc ~37 mm Ø x ~25 mm	
VS UG8/11	.	.	.	.	.	.	.	.	.	.	.	.	0.70	.	.	Disc ~45 mm Ø x ~28 mm	
CZ CM-4B	0.017	.	(0.0002)	.	0.115	.	.	0.071	.	0.022	0.052	.	0.116	0.007	.	Disc ~39 mm Ø x 25 mm	
IMZ 118	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
12X LA5D	.	.	.	.	0.151	.	.	0.0039	.	.	.	.	(0.004)	(0.005)	0.0013	Disc ~40 mm Ø x ~15 mm	
IMZ 116	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
SS 115	.	.	0.0058	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 19 mm	
VS UG1/11	.	.	.	.	0.0195	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~28 mm	

LOW ALLOY STEEL CHART 2 of 8

= Class, where 1 = CRM, 2 = RM, and 3 = RM with no uncertainties

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	Mo	N	Sn	Ti	V
1	IMZ 120	0.60	0.40	(0.049)	0.026	0.34	0.10	0.085	0.20	0.033	.	0.065	.	0.0115	0.008	.	.
1	VS UG96	0.60	0.52	0.0046	0.0029	0.290	0.256	0.396	0.399	0.031	.	.	0.0042	.	.	0.0025	0.0030
1	VS UG119	0.55	0.70	0.012	(0.02)	1.63	0.207	0.142	0.195	0.039	.	.	0.0113	0.0047	.	0.0030	.
1	12X 10550A	0.549	0.685	0.0184	0.0055	0.281	0.0290	0.0247	0.338	0.0325	.	0.0059	0.0086	0.0051	0.0018	.	.
1	IMZ 103D	0.54	0.77	0.060	0.050	0.43	0.263	0.59	0.573	0.021	.	0.005	0.180	0.0044	0.003	0.20	0.187
1	12X LA4B	0.537	0.303	0.0363	0.039	0.335	0.334	0.521	0.499	0.057	.	.	0.489	0.0222	.	.	0.328
1	12X 61500A	0.530	0.912	0.0104	0.0102	0.240	0.157	0.0976	1.023	(0.007)	.	0.0067	0.0195	.	0.0114	.	0.110
2	CZ CM-6A	0.52	0.37	0.016	0.058	0.27	0.05	0.19	0.37	0.02	.	0.025	0.04	0.009	0.017	0.03	0.05
1	ECRM 055-2D	0.5199	0.687	0.0102	0.0205	0.3094	0.2089	0.3121	0.3217	.	.	0.0187	0.0960	0.01069	0.0162	0.00104	0.00245
2	CZ BO-2B	0.515	0.745	0.0093	0.0016	0.309	0.100	0.057	0.212	0.0196	.	0.0057	0.006	0.004	0.0062	0.0017	(0.001)
1	IARM Fe6150-22	0.512	0.813	0.026	0.0024	0.303	0.135	0.098	0.912	0.027	.	0.0060	0.0170	0.0100	0.0069	0.0014	0.161
1	NCS H513752	0.51	0.99	0.027	0.011	0.21	.	.	0.67	.	.	0.27	.	.	.	0.006	0.09
1	BS 4150MOD-A	0.503	1.12	0.0172	0.062	0.253	0.192	0.095	0.799	0.0023	.	0.0038	0.170	0.0081	0.0090	0.0018	0.029
1	12X LA3C	0.500	1.693	0.0274	0.0442	0.163	0.213	0.280	0.375	0.0410	.	0.0301	0.303	0.0039	.	.	0.157
2	BS 4941	0.490	0.79	0.012	0.017	0.27	0.106	0.074	0.96	0.024	.	(0.004)	0.039	0.0076	0.006	.	0.164
1	SS 407/2	0.490	0.195	0.038	0.0105	0.66	0.397	0.527	3.03	0.040	.	.	0.83	(0.011)	.	.	0.19
1	IMZ 117	0.49	0.77	0.038	0.015	0.34	0.41	0.29	0.94	0.023	0.013	.	0.024	0.0154	.	(0.0014)	0.087
2	BS 4150MOD	0.47	0.90	0.024	0.079	0.21	0.19	0.15	1.01	0.012	.	0.005	0.21	0.0087	0.013	(0.002)	0.008
1	VS UG144	0.465	0.141	0.022	0.071	0.86	0.064	4.98	0.412	0.069	.	0.018	0.136	0.011	0.027	0.293	0.143
1	12X 15266V	0.455	1.240	0.0344	0.0258	0.674	0.226	1.317	3.49	0.526	.	0.0640	0.298	.	0.0082	.	0.106
1	12X 41400B	0.452	0.764	0.0095	0.041	0.32	0.161	0.156	0.999	0.0137	.	0.015	0.177	0.0124	0.0099	.	.
1	12X 41450A	0.446	1.011	0.0093	0.0031	0.261	0.1318	0.187	1.194	0.0220	.	0.0053	0.340	0.0080	0.0090	.	0.0385
1	VS UG5/11	0.445	0.64	0.010	0.0037	0.29	0.146	1.40	0.912	.	.	0.269	0.0119	0.0047	.	.	0.148
1	DS2U C051	0.443	0.795	0.0162	0.029	0.293	0.140	0.041	0.048	(0.010)	.	(0.002)	.	(0.004)	(0.001)	(0.002)	(0.002)
2	BS XCCV	0.44	1.75	0.012	0.024	0.28	0.015	0.019	0.041	0.033	.	0.0023	0.007	0.0056	(0.0004)	(0.002)	<(0.003)
2	CZ LA-5C	0.439	1.87	0.017	0.0088	0.394	0.138	2.59	3.815	0.081	.	0.026	0.86	0.024	0.031	0.048	0.536
1	12X 14072A	0.430	0.680	0.0151	0.0061	0.322	0.203	0.136	1.061	0.0039	.	.	0.573	0.0103	(0.011)	.	0.301
1	BS 4140C	0.43	0.922	0.010	0.026	0.29	0.260	0.131	0.94	0.0215	.	0.0052	0.169	0.0064	0.0095	0.0009	0.0026
1	IMZ 54/1	0.43	0.14	(0.009)	0.010	0.17	(0.034)	4.01	0.12	.	.	.	(0.007)	.	.	.	0.19
1	NM PC-4	0.43	0.80	0.043	0.045	0.34	.	.	0.26	.	.	.	.	.	.	.	.
1	IARM 305B	0.425	0.58	0.011	0.014	0.349	0.214	0.156	1.63	0.92	.	(0.006)	0.32	0.0044	0.011	0.0044	0.004
1	IARM 30H	0.425	0.937	0.015	0.022	0.253	0.131	0.063	0.97	0.020	.	0.0046	0.199	0.0081	0.008	(0.0024)	(0.0040)
2	PV 101/1	0.424	0.798	0.014	0.027	0.177	0.108	0.091	1.013	.	.	0.099	.	.	.	.	.
1	BS 4340A	0.423	0.766	0.0062	(0.0008)	0.253	0.128	1.80	0.879	0.031	.	0.0059	0.259	0.0102	0.0081	(0.0011)	0.0024
1	IARM 252D	0.423	0.842	0.0075	0.0128	0.256	0.270	0.424	0.468	0.024	.	0.0053	0.204	0.0068	0.012	0.0012	0.0022
1	12X 43400A	0.422	0.592	0.0164	0.0284	0.259	0.177	1.378	1.181	0.013	.	0.0084	0.223	0.0089	0.007	.	.
2	CZ CM-16B	0.421	0.762	0.0508	0.0376	0.574	0.296	0.733	0.635	0.128	.	0.065	0.424	0.0154	0.0289	0.121	0.272
1	BS 4340B	0.42	0.658	0.0078	0.016	0.283	0.170	1.85	0.81	0.022	.	0.009	0.235	0.0060	0.008	0.0019	0.0033
2	HRT FE2015-N	0.42	0.83	0.007	0.028	0.24	0.15	0.32	1.03	0.023	.	.	0.21	0.0057	.	.	0.006
1	BS 4340	0.418	0.695	0.0119	0.0187	0.279	0.149	1.79	0.807	0.028	.	0.0043	0.231	0.0080	0.0063	0.0014	0.0033
1	IARM 252C	0.416	0.92	0.025	0.008	0.248	0.109	0.505	0.501	0.017	.	0.004	0.205	0.0083	0.007	0.001	0.005
1	BS 300A	0.416	0.716	0.0049	0.0008	1.71	0.118	1.87	0.798	0.098	.	0.0029	0.38	0.0023	0.0065	0.0095	0.070

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	Mo	N	Sn	Ti	V
Number	B	Bi	Ca	Ce	Co	Fe	Mg	Nb	O	Pb	Sb	Ta	W	Zn	Zr	Units	Comment
IMZ 120	.	.	.	.	.	.	.	.	.	0.077	0.031	.	.	.	.	Disc 40 mm Ø	
VS UG96	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø	
VS UG119	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø	
12X 10550A	.	.	.	.	.	.	.	.	.	.	.	.	.	(0.0016)	.	Disc ~40 mm Ø	
IMZ 103D	0.010	.	.	.	0.010	.	.	0.042	.	.	.	.	.	.	.	Disc 38 mm Ø	
12X LA4B	.	.	.	.	0.105	.	.	.	.	.	.	.	0.091	.	.	Disc 42 mm Ø	
12X 61500A	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0055	.	Disc ~38 mm Ø	
CZ CM-6A	0.015	.	.	.	0.03	.	.	0.028	.	0.017	0.03	.	0.04	.	0.04	Disc ~39 mm Ø	
ECRM 055-2D	.	.	.	.	0.0257	.	.	.	.	.	0.00376	.	0.0166	.	.	Disc 38 mm Ø	
CZ BO-2B	.	.	(0.0008)	.	0.0055	.	.	.	.	.	.	.	(0.005)	.	.	Disc ~37 mm Ø	
IARM Fe6150-22	.	.	0.0014	.	0.0081	.	.	.	0.0014	.	0.0016	.	0.007	.	.	Disc 38 mm Ø	
NCS H513752	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø	
BS 4150MOD-A	(0.0004)	.	(0.0007)	.	0.0070	96.7	(0.0004)	(0.002)	0.0017	(0.0004)	(0.002)	.	0.0026	.	(0.0005)	Disc 38 mm Ø	
12X LA3C	.	.	.	.	0.0475	.	.	.	.	(0.004)	.	.	.	.	(0.004)	Disc ~40 mm Ø	
BS 4941	.	.	(0.0002)	.	0.008	.	.	.	0.0017	.	.	.	.	.	.	Disc 41 mm Ø	
SS 407/2	.	.	.	.	0.0068	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø	
IMZ 117	.	.	(0.0002)	.	.	.	.	0.041	.	.	.	.	.	.	.	Disc 40 mm Ø	
BS 4150MOD	.	0.070	0.0010	.	0.012	.	.	.	(0.003)	0.0010	.	.	.	.	.	Disc 38 mm Ø	
VS UG144	0.0043	.	.	0.004	0.0245	.	.	0.018	.	0.0017	(0.01)	.	1.32	0.0012	0.068	Disc ~37 mm Ø	
12X 15266V	.	.	.	.	0.286	.	.	1.438	.	.	.	0.116	.	.	.	Disc ~40 mm Ø	
12X 41400B	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0012	.	Disc ~38 mm Ø	
12X 41450A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~38 mm Ø	
VS UG5/11	.	.	.	.	0.0195	.	.	.	.	.	.	.	0.049	.	.	Disc ~45 mm Ø	
DS2U C051	.	.	.	.	(0.003)	.	.	(0.001)	.	.	.	.	.	.	.	Disc 40 mm Ø	
BS XCCV	.	.	.	.	0.006	.	.	<(0.002)	(0.0018)	<(0.0006)	(0.0003)	.	.	.	<(0.002)	Disc 36 mm Ø	
CZ LA-5C	.	.	.	.	0.088	.	.	0.057	.	0.015	0.018	.	0.631	(0.013)	.	Disc ~37 mm Ø	
12X 14072A	.	.	.	.	0.0098	.	.	.	.	.	.	.	.	.	.	Disc ~38 mm Ø	
BS 4140C	(0.0007)	.	0.0010	.	0.0078	96.8	(0.0008)	0.0019	0.0011	(0.0006)	0.0021	(0.01)	(0.003)	.	(0.0009)	Disc 38 mm Ø	
IMZ 54/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø	
NM PC-4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø	
IARM 305B	0.0006	.	0.0007	.	0.007	.	(0.002)	0.002	0.0006	(0.0003)	(0.004)	.	(0.004)	(0.002)	0.0011	Disc 31 mm Ø	
IARM 30H	(0.0007)	(0.002)	(0.0009)	.	0.0071	.	(0.001)	(0.003)	(0.0016)	(0.0005)	0.0013	.	(0.007)	(0.002)	(0.002)	Disc 31 mm Ø	
PV 101/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø	
BS 4340A	(0.0002)	.	(0.0002)	.	0.0111	95.4	0.0004	(0.002)	0.0007	(0.0003)	(0.0018)	.	0.0005	.	0.0016	Disc 38 mm Ø	
IARM 252D	(0.0002)	(0.0005)	(0.001)	.	0.0078	.	(0.0002)	0.0013	(0.0013)	(0.0004)	0.0024	.	(0.004)	(0.0005)	(0.0013)	Disc 31 mm Ø	
12X 43400A	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0027	.	Disc ~40 mm Ø	
CZ CM-16B	0.0128	(0.045)	0.00033	.	0.058	.	.	0.094	.	0.0294	0.0282	.	0.141	0.0156	0.102	Disc 37 mm Ø	
BS 4340B	<0.005	.	<0.005	.	0.014	95.5	0.0002	(0.0021)	0.0009	<0.005	0.0017	.	(0.0028)	.	(0.0006)	Disc 38 mm Ø	
HRT FE2015-N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 35 mm Ø	
BS 4340	(0.0002)	.	0.0005	.	0.0068	95.5	(0.0002)	(0.001)	0.0012	(0.0002)	(0.0013)	.	0.0012	.	0.0005	Disc 38 mm Ø	
IARM 252C	(0.0001)	.	(0.0003)	.	0.008	.	.	0.002	(0.002)	0.001	<0.005	.	<0.005	.	<0.002	Disc 31 mm Ø	
BS 300A	(0.00032)	.	0.0008	.	0.0087	93.8	<0.0005	(0.002)	<0.01	<0.0005	0.0011	0.0022	<0.01	.	(0.002)	Disc 38 mm Ø	
Number	B	Bi	Ca	Ce	Co	Fe	Mg	Nb	O	Pb	Sb	Ta	W	Zn	Zr	Units	Comment

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= Class, where 1 = CRM, 2 = RM, and 3 = RM with no uncertainties

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	Mo	N	Sn	Ti	V
1	12X 12700A	0.364	0.636	0.0205	0.0116	0.238	0.0342	0.0197	0.070	0.055	.	0.0060	0.0345	0.0073	.	.	0.0033
1	IMZ 115	0.36	0.65	0.045	0.024	0.043	0.25	0.35	0.27	(0.015)	(0.0058)	.	0.070	0.0087	.	.	(0.063)
1	IRSID 1750	0.359	1.801	0.0128	0.075	0.246	0.320	0.187	0.227	0.0175	.	0.0188	0.0433	0.0107	0.0137	(0.0016)	0.114
1	IMZ 114A	0.358	1.156	0.0235	0.0220	0.328	0.492	0.098	0.423	0.027	.	0.0035	0.112	0.0029	0.014	0.0088	0.096
1	12X 352E	0.356	0.817	0.067	0.101	0.413	0.125	0.344	0.248	0.263	.	0.0029	0.230	.	0.109	0.240	0.0251
2	TL 1100	0.3487	0.6284	0.0124	0.0049	0.2839	0.1767	3.727	1.664	0.0374	.	.	0.3349	0.0116	0.0083	.	.
1	VS UG90	0.34	0.286	0.0079	0.012	0.221	0.200	0.265	0.261	0.037	0.032	.	0.0044	0.046	0.015	.	0.039
2	HRT FE2021-N	0.33	0.31	0.0178	0.0014	0.28	0.070	0.193	2.81	0.014	.	0.004	2.7	0.007	0.004	0.001	0.52
2	HRT FE2022-N	0.319	0.447	0.0058	(0.0011)	0.256	0.029	0.170	2.97	0.0134	.	(0.0025)	0.93	0.0060	0.0029	(0.0015)	0.279
1	12X 41300A	0.319	0.551	0.0082	0.0156	0.183	0.131	0.084	0.996	0.027	.	0.0043	0.217	0.0095	0.0060	.	.
1	BS 4130A	0.318	0.56	0.016	0.0183	0.270	0.249	0.152	0.97	0.025	.	(0.005)	0.206	0.0060	0.0093	0.0009	0.0029
1	BS 4330MOD	0.316	0.92	0.0052	0.0010	0.269	0.105	1.83	0.848	0.031	.	0.0038	0.478	0.0031	0.0062	0.0027	0.083
1	BS 8630	0.315	0.752	0.0032	0.0043	0.261	0.046	0.544	0.477	0.023	.	0.0038	0.194	0.0038	0.0029	0.0008	0.0006
1	SS 219/4	0.314	0.81	0.011	0.027	0.079	0.088	2.55	0.66	.	.	.	0.58	.	0.011	.	.
1	VS UG145	0.312	0.220	0.0066	0.059	0.164	0.307	0.453	1.10	0.009	.	0.034	1.34	0.012	0.0072	0.020	0.68
1	12X 357D	0.312	0.219	0.0101	0.066	0.211	0.203	0.188	0.21	0.138	.	0.0127	0.025	.	0.0145	0.074	0.127
2	HRT FE2010-N	0.31	0.56	0.015	0.034	0.28	0.05	0.25	2.45	0.049	.	.	0.17	.	.	.	0.117
1	SS 222/1	0.3095	0.618	0.0175	0.0089	0.227	0.150	3.536	0.0535	.	.	.	0.0287	0.0100	.	.	.
1	IARM 143F	0.308	0.573	(0.011)	0.0177	0.23	0.221	0.088	0.865	0.026	.	0.0051	0.163	0.0098	0.010	(0.0012)	0.0046
1	IARM 330B	0.302	0.82	0.0075	(0.003)	0.227	0.084	1.856	0.807	0.023	.	.	0.406	.	0.0047	.	0.076
1	VS UG35/2	0.301	0.109	.	.	0.94	0.174	0.84	2.63	.	.	.	0.65	.	.	.	0.108
1	VS RG27	0.30	0.91	0.054	0.0032	0.42	0.188	0.135	1.53	0.88	.	.	0.222	.	.	.	0.064
1	VS UG3/11	0.30	0.91	0.056	0.0032	0.406	0.187	0.132	1.54	0.89	.	.	0.220	0.022	.	0.153	0.064
1	VS UG7/5	(0.3)	0.68	(0.005)	(0.01)	(0.2)	(0.03)	2.27	0.99	(0.07)	.	.	0.25	.	.	(0.002)	0.23
1	12X 16604A	0.299	0.444	0.0064	0.0018	0.239	0.131	1.892	1.912	0.0111	.	.	0.334	0.0046	0.0060	.	0.0069
1	IARM 330A	0.299	1.00	(0.005)	(0.001)	0.273	0.074	1.80	0.90	0.045	.	(0.003)	0.404	0.0024	0.0039	0.006	0.071
1	SRM 1269	0.298	1.35	0.012	0.0061	0.189	0.095	0.108	0.201	0.016	.	.	0.036	.	.	.	0.004
1	ECRM 086-1D	0.297	0.879	0.024	0.037	0.206	0.320	0.168	0.150	.	.	0.023	.	.	0.026	.	.
2	CZ CM-3A	0.295	0.37	0.016	0.0013	0.27	0.16	1.82	1.87	0.05	.	0.005	0.33	0.007	0.007	0.006	0.007
1	IRSID 1745	0.295	0.850	0.0077	0.081	0.220	0.202	0.188	1.130	0.0202	.	0.0262	0.222	.	0.0134	(0.003)	(0.004)
1	VS UG9/10	0.294	0.616	.	(0.003)	0.235	0.169	0.144	0.170	0.280	.	.	0.282	0.015	0.0017	0.163	1.25
1	VS RG27/1	0.290	0.74	0.044	0.0043	0.28	0.208	0.142	1.83	1.07	.	.	0.191	.	.	0.110	0.072
1	DSZU C05b	0.282	1.82	0.017	0.033	0.347	0.478	1.80	1.355	0.005	.	0.014	0.218	0.013	0.020	0.033	0.221
1	IPT 501	0.277	0.723	0.016	0.030	0.208	0.083	0.063	1.05	0.034	.	.	0.210	0.0076	0.008	0.0015	.
1	IARM 378A	0.274	1.38	0.018	0.037	0.307	0.299	0.142	0.187	(0.0029)	.	.	0.031	(0.02)	0.0236	(0.003)	0.0844
1	SRM 1225	0.274	0.48	0.007	0.014	0.221	.	0.018	0.91	.	.	.	0.166	.	.	.	0.004

Number	B	Bi	Ca	Ce	Co	Fe	Mg	Nb	O	Pb	Sb	Ta	W	Zn	Zr	Units	Comment
12X 12700A	0.0014	.	.	.	0.0047	.	.	.	.	.	.	.	.	0.0120	.	Disc ~50 mm Ø x ~20 mm	
IMZ 115	.	.	.	.	.	.	.	0.09	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
IRSID 1750	(0.0002)	(0.00002)	(0.0002)	(0.0005)	(0.0120)	.	(0.0002)	(0.0010)	.	(0.001)	0.0031	(0.0010)	(0.004)	(0.0012)	(0.0002)	Disc 38 mm Ø x 25 mm	
IMZ 114A	0.0019	.	.	.	0.0057	.	.	0.015	.	0.021	0.018	.	(0.007)	(0.006)	.	Disc 38 mm Ø x 20 mm	
12X 352E	.	.	.	.	0.025	.	.	0.063	.	.	.	(0.018)	0.275	.	.	Disc ~40 mm Ø x ~15 mm	
TL 1100	.	.	.	.	0.0283	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 20 mm	
VS UG90	.	.	.	.	.	.	.	.	.	.	0.0011	.	.	.	.	Disc ~47 mm Ø x ~30 mm	
HRT FE2021-N	0.0006	.	.	0.0011	0.011	.	0.0004	0.007	.	.	0.001	0.002	0.027	0.002	0.0012	Disc 36 mm Ø x 20 mm	
HRT FE2022-N	(0.0004)	.	.	(0.0030)	0.0084	.	(0.0008)	(0.0034)	.	.	(0.0012)	(0.0028)	(0.0050)	(0.0028)	(0.0010)	Disc 31 mm Ø x 20 mm	
12X 41300A	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0012	.	Disc ~38 mm Ø x ~15 mm	
BS 4130A	0.0002	.	0.0010	.	0.0068	97.2	<0.005	0.0014	0.0017	(0.0002)	0.0018	(0.006)	0.0025	.	(0.0012)	Disc 38 mm Ø x ~7 or 19+ mm	17034
BS 4330MOD	(0.0009)	.	(0.001)	.	0.034	95.1	(0.0002)	0.007	(0.001)	(0.001)	(0.0007)	.	(0.001)	.	0.0016	Disc 44 mm Ø x ~7 or 19+ mm	17034
BS 8630	(0.0002)	.	(0.0007)	.	0.0029	97.3	(0.0007)	(0.0006)	0.0008	(0.0007)	0.0012	.	(0.001)	.	(0.001)	Disc 44 mm Ø x 19+ mm	17034
SS 219/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 19 mm	
VS UG145	0.0019	0.0052	0.0006	(0.02)	0.161	.	.	0.102	.	0.021	.	(0.01)	0.162	0.0017	0.008	Disc ~37 mm Ø x ~20 mm	
12X 357D	0.0036	0.0024	.	.	0.198	.	.	0.011	.	0.040	0.018	.	0.0213	.	0.0049	Disc ~40 mm Ø x ~15 mm	Se:0.0057
HRT FE2010-N	.	.	.	.	0.012	.	.	.	.	.	.	.	(0.014)	.	.	Disc 40 mm Ø x 20 mm	
SS 222/1	.	.	.	.	0.0379	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 19 mm	
IARM 143F	.	.	.	.	0.010	.	.	(0.0015)	(0.003)	.	.	.	(0.003)	.	.	Disc 31 mm Ø x 2 or 18 mm	
IARM 330B	.	.	.	.	0.013	.	.	(0.002)	.	.	.	.	0.024	.	.	Disc 31 mm Ø x 2 or 18 mm	
VS UG35/2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~28 mm	
VS RG27	.	.	.	.	0.071	.	.	.	.	.	.	.	0.170	.	.	Disc ~45 mm Ø x ~28 mm	
VS UG3/11	.	.	.	.	0.072	.	.	.	.	.	.	.	0.176	.	.	Disc ~45 mm Ø x ~28 mm	
VS UG7/5	.	.	.	.	.	.	(0.1)	.	.	.	.	.	0.35	.	.	Disc ~45 mm Ø x ~28 mm	
12X 16604A	.	.	.	.	0.0366	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
IARM 330A	0.0003	.	0.0010	.	0.0063	.	.	(0.003)	(0.0009)	(0.0004)	(0.001)	.	(0.004)	.	0.0015	Disc 31 mm Ø x 2 mm	
SRM 1269	(0.0009)	.	(0.001)	.	.	.	.	.	.	0.005	.	.	.	.	.	Disc 32 mm Ø x 19 mm	
ECRM 086-1D	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 25 or 30 mm	
CZ CM-3A	0.0002	.	.	.	0.012	.	.	0.006	.	.	.	.	0.015	.	.	Disc ~39 mm Ø x 25 mm	
IRSID 1745	.	.	.	.	.	.	.	.	.	.	.	.	.	(0.003)	.	Disc 48 mm Ø x 30 mm	
VS UG9/10	.	.	.	.	.	.	.	.	.	.	.	.	1.34	.	.	Disc ~45 mm Ø x ~28 mm	
VS RG27/1	.	.	.	.	0.025	.	.	.	.	.	.	.	0.170	.	.	Disc ~45 mm Ø x ~28 mm	
DSZU C05b	0.018	.	.	.	0.179	.	.	0.170	.	.	.	.	0.53	.	.	Disc 40 mm Ø x 25 mm	
IPT 501	.	.	.	.	0.008	.	.	.	.	.	.	.	.	.	.	Disc 34 mm Ø x 18 mm	
IARM 378A	(0.0006)	.	.	.	0.013	.	.	(0.003)	.	.	.	.	(0.006)	.	.	Disc 31 mm Ø x 2 or 18 mm	
SRM 1225	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 32 mm Ø x 19 mm	

Number	B	Bi	Ca	Ce	Co	Fe	Mg	Nb	O	Pb	Sb	Ta	W	Zn	Zr	Units	Comment
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= Class, where 1 = CRM, 2 = RM, and 3 = RM with no uncertainties

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	Mo	N	Sn	Ti	V
1	VS UG114	0.190	1.65	0.010	0.0074	0.59	0.173	0.345	1.03	0.146	.	.	0.016	.	.	0.006	0.0031
1	BS 4320	0.191	0.599	0.0068	0.0026	0.259	0.050	1.73	0.518	0.024	.	0.0036	0.228	0.0049	0.0040	0.0009	0.0016
1	IMZ 162	0.19	1.31	0.021	0.014	0.59	0.077	1.64	0.91	(0.040)	.	.	0.52	.	.	0.12	0.045
2	BS 4620	0.189	0.57	0.006	0.018	0.25	0.216	1.75	0.072	0.032	.	(0.0084)	0.24	0.0078	0.013	(0.0026)	(0.0008)
1	VS UG113	0.189	1.55	0.0087	0.0070	0.59	0.185	0.186	1.12	0.263	.	.	0.010	.	.	0.006	0.0040
2	BS 4820	0.188	0.57	0.010	0.025	0.25	0.11	3.29	0.12	0.020	.	0.005	0.21	0.0079	(0.008)	.	(0.002)
1	BS 51F	0.188	0.519	0.016	0.017	0.24	0.231	1.68	0.156	0.022	.	(0.005)	0.224	0.0061	0.008	0.0012	0.0030
1	ECRM 192-1D	0.1875	1.377	0.0029	0.0010	0.219	0.0453	0.755	0.0717	0.0306	0.0285	.	0.482	0.0118	.	.	.
2	PV 102/1	0.186	1.226	0.024	0.018	0.184	0.109	0.140	0.995	.	.	.	0.030	.	.	.	.
1	VS UG112	0.186	1.63	0.0065	0.0050	0.60	0.157	0.185	0.98	0.026	.	.	0.021	.	.	0.0028	0.014
2	CZ CM-8B	0.185	1.95	0.015	0.014	0.112	0.081	0.032	1.22	0.0028	.	0.0035	0.011	0.0075	0.0126	0.0008	0.0078
2	BS 8620A	0.184	0.80	0.008	0.079	0.21	0.15	0.44	0.48	0.016	.	0.007	0.16	0.0107	0.009	(0.002)	0.004
2	BS LF3	0.183	0.52	0.006	0.018	0.206	0.080	3.36	0.098	0.017	.	0.006	0.056	0.0054	0.006	.	(0.002)
1	IMZ 74B	0.181	1.15	0.019	0.014	0.316	0.245	0.123	0.236	0.018	.	0.013	0.053	0.0048	0.020	0.021	0.071
1	IRSID 1658	0.180	0.618	0.014	0.032	0.160	0.345	0.241	0.147	0.029	.	0.034	0.046	.	0.022	(0.002)	(0.002)
2	HRT FE2012-N	0.18	0.70	0.010	0.008	0.31	0.14	0.13	0.25	0.030	.	.	0.26	.	.	.	.
1	12X 12749X	0.176	1.41	0.023	0.066	0.48	0.253	0.47	0.453	0.202	.	0.081	0.195	.	0.018	0.0178	0.068
1	12X 15CDV6A	0.171	0.839	0.0056	0.0086	0.152	0.0231	0.044	1.397	0.019	.	0.0041	0.875	0.0069	0.0011	.	0.242
2	CZ CM-9B	0.17	2.27	(0.008)	(0.010)	0.89	0.040	0.023	1.36	0.049	.	(0.002)	(0.002)	.	(0.003)	(0.002)	(0.006)
2	HRT FE2019-N	0.17	1.27	0.015	(0.001)	0.30	0.03	0.33	0.75	0.068	.	.	0.40	0.0040	.	0.004	(0.003)
1	VS RG31	0.169	0.291	0.0048	0.006	0.39	0.46	2.08	1.31	0.26	.	.	0.306	.	.	0.21	0.207
2	CZ CM-22B	0.168	1.733	0.084	0.067	0.322	0.402	2.883	0.159	0.048	.	0.061	0.146	0.0100	0.067	0.0094	0.608
1	BS 3962	0.168	0.58	0.008	0.018	0.244	0.148	1.83	0.137	0.024	.	0.0053	0.22	0.007	0.007	(0.002)	(0.0016)
1	VS UG7/11	0.164	0.293	0.0045	0.0062	0.39	0.468	2.09	1.31	0.276	.	.	0.298	0.014	.	0.20	0.208
1	VS UG141	0.163	0.90	0.029	0.028	0.390	0.190	0.686	0.78	0.011	.	0.008	0.472	0.0092	0.089	0.104	0.294
1	12X 350C	0.159	0.758	0.0296	0.040	0.467	0.196	0.160	0.335	0.290	.	0.057	0.147	.	0.0382	0.076	0.0115
2	BS XCCT	0.158	0.52	0.005	0.011	0.28	0.027	1.27	0.65	0.006	.	0.004	0.020	0.0076	(0.002)	(0.002)	0.031
2	BS 51E	0.15	0.59	0.010	0.021	0.28	0.22	1.75	0.14	0.028	.	.	0.21	0.0086	0.010	.	(0.0011)
1	BS 45B	0.140	0.502	0.0068	0.017	0.583	0.101	0.136	1.14	0.030	.	0.0066	0.60	0.0066	0.0069	0.0024	0.0083
1	ECRM 193-1D	0.14	0.97	0.007	0.009	0.40	0.60	1.18	0.18	0.025	.	0.0062	0.35	0.0108	.	(0.0013)	(0.002)
1	BS LF3A *	0.14	0.55	0.020	0.022	0.23	0.051	3.55	0.13	0.050	.	0.011	0.053	0.011	0.031	0.026	0.029
1	IARM 36C	0.14	0.49	0.009	0.014	0.25	0.142	0.085	2.43	(0.017)	.	(0.005)	0.98	0.008	(0.008)	.	0.0061
1	12X 15252R	0.137	0.321	0.044	0.044	0.097	0.153	2.03	0.96	0.035	.	.	0.247	0.020	0.047	(0.0007)	0.288
1	DSZU C042a	0.132	0.488	0.0091	0.0062	0.286	0.137	0.195	0.995	0.018	.	0.0069	0.31	(0.01)	0.0079	0.0029	0.189
2	BS 47A	0.130	0.44	0.017	0.015	0.27	0.11	0.12	4.22	0.015	.	.	0.47	0.018	0.008	0.003	0.016
1	IMZ 76	0.129	1.37	0.022	0.011	0.24	0.057	0.33	0.12	0.011	.	.	0.101	.	.	(0.003)	(0.006)
1	VS UG86	0.129	0.217	(0.005)	(0.007)	(0.3)	0.62	1.94	1.52	.	.	.	0.311	.	.	.	0.327
1	BS 1982	0.128	0.441	0.012	0.026	0.255	0.177	0.197	2.09	0.021	.	0.007	0.89	0.0097	0.013	(0.001)	0.003
2	BS 58D	0.127	0.45	0.010	0.005	0.32	0.156	3.02	1.35	0.042	.	.	0.14	0.0147	0.012	.	0.005

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	Mo	N	Sn	Ti	V
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Number	B	Bi	Ca	Ce	Co	Fe	Mg	Nb	O	Pb	Sb	Ta	W	Zn	Zr	Units	Comment
VS UG114	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.065	Disc ~45 mm Ø x ~25 mm	
BS 4320	0.0002	.	0.0005	.	0.0060	96.4	0.0002	<0.05	0.0013	<0.005	(0.0015)	<0.05	<0.05	.	<0.05	Disc 38 mm Ø x ~7 or 19+ mm	17034
IMZ 162	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
BS 4620	(0.00006)	.	(0.0001)	.	0.012	.	(0.0001)	(0.0001)	0.0009	(0.0002)	(0.0024)	.	(0.0009)	(0.0002)	.	Disc 38 mm Ø x ~7 or 19+ mm	
VS UG113	.	.	.	.	.	.	.	.	.	.	.	.	0.007	.	0.169	Disc ~45 mm Ø x ~25 mm	
BS 4820	.	.	0.0046	.	0.008	.	.	0.0027	.	.	.	.	.	.	.	Disc 38 mm Ø x ~7 mm	
BS 51F	(0.0002)	.	(0.0005)	.	0.0086	[96.7]	(0.0001)	(0.0007)	(0.002)	(0.0008)	(0.003)	(0.005)	(0.0024)	.	(0.0009)	Disc 38 mm Ø x ~7 or 19+ mm	17034
ECRM 192-1D	.	.	.	.	0.0055	.	.	.	.	.	.	.	.	.	.	Disc ~35 mm Ø x ~30 mm	
PV 102/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 25 mm	
VS UG112	.	.	.	.	.	.	.	.	.	.	.	.	0.005	.	0.0047	Disc ~45 mm Ø x ~25 mm	
CZ CM-8B	0.0023	.	.	.	0.007	.	.	(0.002)	.	(0.003)	(0.004)	.	(0.009)	.	(0.002)	Disc ~39 mm Ø x 25 mm	
BS 8620A	.	0.073	0.0003	.	0.010	.	.	.	(0.004)	(0.001)	.	.	.	.	.	Disc 38 mm Ø x ~7 mm	last
BS LF3	0.0001	.	(0.0001)	.	0.056	.	.	.	0.004	.	.	.	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm	
IMZ 74B	0.0009	.	.	.	0.026	.	.	0.041	.	.	0.013	.	0.023	.	.	Disc 38 mm Ø x 19 mm	
IRSID 1658	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 30 mm	
HRT FE2012-N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 20 mm	
12X 12749X	.	.	.	.	0.426	.	.	.	.	0.016	.	.	0.036	.	.	Disc ~40 mm Ø x ~15 mm	
12X 15CDV6A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
CZ CM-9B	(0.004)	.	.	.	(0.004)	.	.	(0.06)	.	(0.002)	(0.003)	.	.	.	(0.003)	Disc ~39 mm Ø x 25 mm	
HRT FE2019-N	0.0016	.	0.0014	.	(0.003)	.	.	0.029	.	.	.	.	.	.	.	Block 40 mm x 40 mm x 20 mm	
VS RG31	.	.	.	.	0.28	.	.	.	.	.	.	.	0.39	.	.	Disc ~45 mm Ø x ~28 mm	
CZ CM-22B	0.0034	(0.025)	0.0042	.	0.124	.	.	0.051	.	0.0223	0.0132	0.060	0.573	0.0139	.	Disc ~37 mm Ø x ~25 mm	
BS 3962	<0.005	.	(0.00010)	.	0.0072	[96.6]	(0.00015)	(0.0014)	(0.002)	<0.005	(0.003)	<0.05	(0.004)	.	(0.0011)	Disc 37 mm Ø x ~7 or 19+ mm	17034
VS UG7/11	.	.	.	.	0.291	.	.	.	.	.	.	.	0.385	.	.	Disc ~45 mm Ø x ~28 mm	
VS UG141	0.0099	.	.	(0.02)	0.041	.	.	0.099	.	0.0068	0.011	0.031	0.29	0.0017	.	Disc ~37 mm Ø x ~20 mm	
12X 350C	.	.	.	.	0.030	.	.	.	.	.	.	.	0.260	.	.	Disc ~40 mm Ø x ~15 mm	
BS XCCT	.	.	.	.	0.017	.	.	(0.001)	(0.005)	(0.001)	(0.0004)	.	.	.	(0.002)	Disc 36 mm Ø x ~7 or 19+ mm	
BS 51E	.	.	.	.	0.035	.	.	.	(0.004)	.	.	.	.	.	.	Disc 35 mm Ø x ~7 mm	
BS 45B	(0.0003)	.	0.0008	.	0.0090	96.7	(0.0004)	(0.002)	0.0015	(0.15)	(0.003)	.	(0.0038)	.	(0.0009)	Disc 38 mm Ø x ~7 or 19 mm	last 17034
ECRM 193-1D	.	.	.	.	0.007	.	.	0.0232	.	.	.	.	.	.	.	Disc 40 mm Ø x 35 mm	
BS LF3A *	0.0005	.	0.003	.	0.061	[95.0]	0.0001	0.030	<0.05	0.002	0.009	0.004	0.030	.	0.022	Disc 37 mm Ø x ~7 or 19+ mm	* Provisional
IARM 36C	.	.	.	.	(0.008)	.	.	.	.	.	.	.	.	.	.	Disc 31 mm Ø x 2 or 18 mm	
12X 15252R	.	.	.	.	0.153	.	.	0.067	.	.	.	.	(0.0013)	.	.	Disc ~40 mm Ø x ~15 mm	
DSZU C042a	(0.0005)	.	(0.001)	.	0.009	.	.	0.0025	.	.	.	.	(0.006)	.	.	Disc 40 mm Ø x 25 mm	
BS 47A	.	.	.	.	0.011	.	.	0.002	(0.003)	.	.	.	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm	
IMZ 76	(0.001)	.	.	.	.	.	.	0.068	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
VS UG86	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~28 mm	
BS 1982	.	.	.	.	0.010	.	.	(0.003)	0.0017	(0.0003)	0.002	.	.	.	.	Disc 39 mm Ø x ~7 mm	last, ISO 25
BS 58D	.	.	.	.	0.009	.	.	.	.	.	.	.	.	.	.	Disc 41 mm Ø x ~7 mm	last

Number	B	Bi	Ca	Ce	Co	Fe	Mg	Nb	O	Pb	Sb	Ta	W	Zn	Zr	Units	Comment
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LOW ALLOY STEEL CHART 8 of 8

= Class, where 1 = CRM, 2 = RM, and 3 = RM with no uncertainties

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	Mo	N	Sn	Ti	V
1	VS UG117	0.064	1.41	0.012	0.021	0.60	0.214	0.072	0.129	0.018	.	.	(0.005)	0.0085	.	0.018	.
2	CZ CM-7A	0.05	1.17	0.011	0.016	0.56	0.09	0.05	0.10	0.13	.	0.005	0.015	0.01	0.008	0.14	0.012
1	SS 421	(0.049)	(0.11)	(0.012)	(0.027)	(0.07)	.	.	.	.	.	.	(0.028)	.	.	.	(<0.02)
1	12X 12746V	0.048	1.19	0.034	0.064	0.156	0.646	0.226	0.374	0.459	.	0.051	0.658	.	0.264	0.088	0.0208
1	VS UG82	0.046	1.83	(0.003)	(0.004)	0.334	0.056	0.201	0.59	.	.	.	0.93	.	.	.	0.56
1	VS UG102	0.045	1.78	0.0082	.	0.222	0.172	0.277	0.0143	0.036	.	.	0.209	.	.	.	.
1	VS UG97	0.041	0.59	0.0036	0.0025	0.194	0.0040	0.0048	0.0080	0.51	.	.	0.019	.	.	0.154	(0.001)
1	VS RG26	0.028	0.75	0.0037	.	0.173	0.011	.	0.025	0.30	.	.	0.015	.	.	0.121	.
2	IARM 168A	0.003	0.12	0.030	0.064	0.46	0.009	2.32	0.004	0.19	.	(0.003)	0.69	0.0002	0.003	0.004	0.004
1	SS 117	0.0015	0.1139	0.0093	0.00061	0.00286	0.0150	0.0196	0.0196	0.0283	.	0.00175	0.00207	0.00148	0.00152	0.0174	0.00104

Number	B	Bi	Ca	Ce	Co	Fe	Mg	Nb	O	Pb	Sb	Ta	W	Zn	Zr	Units	Comment
VS UG117	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~25 mm	
CZ CM-7A	0.0003	.	.	.	0.007	.	.	0.004	.	(0.0014)	(0.0003)	.	0.01	.	0.042	Disc ~39 mm Ø x 25 mm	
SS 421	.	.	.	.	.	.	.	.	.	.	.	.	0.52	.	.	Disc 38 mm Ø x 19 mm	
12X 12746V	.	.	.	.	0.142	.	.	.	.	.	.	.	0.105	.	.	Disc ~40 mm Ø x ~15mm	
VS UG82	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~28 mm	
VS UG102	.	.	0.0018	.	.	.	.	0.071	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~25 mm	
VS UG97	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~28 mm	
VS RG26	.	.	.	.	.	.	.	.	.	.	.	.	0.0052	.	.	Disc ~45 mm Ø x ~28 mm	
IARM 168A	0.0004	.	.	(0.0002)	0.003	.	.	0.003	0.0008	(<0.01)	.	.	0.52	.	.	Disc 31 mm Ø x 2 mm	
SS 117	.	.	.	.	0.0065	.	.	0.0186	.	0.000069	.	.	.	.	.	Disc 44 mm Ø x 19 mm	

CRM

LOW ALLOY STEEL WITH EXTENSIVE ANALYSIS

analysis listed in mass %

31-34 mm Ø x 19 mm

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	As	Co	Mo	Nb	Pb	Sn	Ta	Ti	V	W	Zr
SRM 1264a	0.87	0.25	0.010	0.025	0.067	0.25	0.14	0.06	(0.008)	0.010	0.15	0.49	0.15	0.0022	(0.008)	0.11	0.24	0.10	0.10	0.069

continued analysis listed in mass % analysis listed in mg/kg

Number	B	Bi	Fe.diff	Ge	Sb	Te	Zn	Ag	Au	Ca	Ce	H	Hf	La	Mg	N	Nd	O	Pd	Se	Sr
SRM 1264a	(0.011)	(0.0009)	[96.7]	(0.003)	0.034	0.00018	(0.001)	(0.2)	1	0.4	2	(<5)	(13)	0.7	1.5	(32)	0.7	(10)	(0.3)	(2.1)	(5)

LOW ALLOY STEEL XRF SET

Part Number: BS LAS-24 Set of 24 samples, each 35 - 45 mm Ø x 7 mm discs CRM, 17025, 17034 others are RM

Alloy	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	As	Ca	Co	N	Sn	V
300M	BS 4340M	0.414	0.74	0.004	<0.001	1.65	0.134	1.78	0.78	0.35	0.076	0.007	.	0.013	0.0020	0.009	0.056
1345	BS XCCV	0.44	1.75	0.012	0.024	0.28	0.015	0.019	0.041	0.007	0.033	0.0023	.	0.006	0.0056	(0.0004)	<0.003
3115	BS XCCT	0.158	0.52	0.005	0.011	0.28	0.027	1.27	0.65	0.020	0.006	0.004	.	0.017	0.0076	(0.002)	0.031
4130	BS 3932	0.321	0.54	0.016	0.018	0.33	0.200	0.19	1.00	0.229	0.020	0.004	0.0043	0.011	0.0070	0.012	0.005
4140	BS 1962	0.41	0.94	0.007	0.011	0.242	0.224	0.16	1.05	0.229	0.018	0.007	.	0.008	0.0095	0.010	0.004
4150 + S	<u>BS 42</u>	0.516	1.24	0.021	0.073	0.235	0.252	0.183	0.67	0.190	0.020	(0.004)	.	0.012	0.0080	0.012	0.003
4330	<u>BS 4330MOD</u>	0.316	0.92	0.0052	0.0010	0.269	0.105	1.83	0.848	0.478	0.031	0.0038	(0.001)	0.034	0.0031	0.0062	0.083
4340	BS 4340	0.418	0.695	0.0119	0.0187	0.279	0.149	1.79	0.807	0.231	0.028	0.0043	0.0005	0.0068	0.0080	0.0063	0.0033
4615	BS 51E	0.15	0.59	0.010	0.021	0.28	0.22	1.75	0.14	0.21	0.028	.	.	0.035	0.0086	0.010	(0.0011)
4620	BS 4620	0.189	0.57	0.006	0.018	0.25	0.216	1.75	0.072	0.24	0.032	(0.0084)	(0.0001)	0.012	0.0078	0.013	(0.0008)
4820	BS 4820	0.188	0.57	0.010	0.025	0.25	0.11	3.29	0.12	0.21	0.020	0.005	0.0046	0.008	0.0079	(0.008)	(0.002)
6150	<u>BS 43A</u>	0.49	0.82	0.0074	0.025	0.252	0.18	0.24	0.92	0.059	(0.003)	(0.005)	(0.0006)	0.008	0.0072	0.011	0.145
8620	BS 1931	0.194	0.84	0.007	0.018	0.235	0.116	0.42	0.50	0.168	0.021	0.007	(0.0008)	0.012	0.0079	0.007	0.002
8822	BS 8822	0.228	0.92	0.011	0.025	0.26	0.17	0.47	0.52	0.34	0.022	0.007	(0.0004)	0.019	0.0085	0.011	0.003
8740	BS 67B	0.40	0.94	0.007	0.020	0.32	0.19	0.53	0.51	0.22	0.024	.	.	0.011	0.0078	0.009	(0.002)
9310	BS 58D	0.127	0.45	0.010	0.005	0.23	0.156	3.02	1.35	0.14	0.042	.	.	0.009	0.0147	0.012	0.005
9325	BS 9325	0.25	0.91	0.008	0.007	0.32	0.13	3.29	1.48	0.31	0.030	(0.004)	0.0049	0.010	0.0089	0.009	0.004
P-20	BS 55E	0.307	0.72	0.014	0.024	0.60	0.032	0.053	1.66	0.40	(0.004)	.	.	(0.005)	0.0096	0.002	0.019
AMS 6418	BS 69B	0.2258	1.28	0.008	0.013	1.27	0.086	1.71	0.28	0.39	0.024	.	.	0.035	0.0057	0.006	(0.002)
A193	BS 4942	0.414	0.56	0.015	0.021	0.22	0.165	0.16	0.97	0.54	(0.004)	0.005	0.0006	0.010	0.0080	0.014	0.28
A485-1	BS A485-1	0.98	1.10	0.019	0.004	0.62	0.16	0.13	1.07	0.029	0.017	0.006	.	0.010	0.0060	0.011	0.003
E52100	BS 53E	1.08	0.37	0.007	0.012	0.24	0.11	0.26	1.45	0.10	0.003	.	.	0.011	0.0086	0.005	0.004
Nitriding	BS 68C	0.38	0.60	0.018	0.008	0.305	0.178	0.166	1.77	0.36	1.06	(0.004)	(0.0002)	0.011	0.0045	0.008	0.007
LF 3	BS LF 3	0.183	0.52	0.006	0.018	0.206	0.080	3.36	0.098	0.056	0.017	0.006	(0.0001)	0.056	0.0054	0.006	(0.002)
Alloy	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	As	Ca	Co	N	Sn	V

CRM SOLUBLE ELEMENTS IN LOW ALLOY STEEL SET

available in set/7 only -S = Soluble, -T = Total 38 mm Ø x 30 mm

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al-S	Al-T	B-S	B-T	Mo
NCS HS11717a-1	0.0023	0.018	0.012	0.0027	0.0054	0.0036	0.011	0.023	0.0069	0.0078	0.0002	0.0004	0.0053
NCS HS11717a-2	0.0028	0.104	0.014	0.011	0.077	0.049	0.045	0.042	0.024	0.026	0.0011	0.0012	0.304
NCS HS11717a-3	0.032	0.303	0.018	0.067	1.55	0.403	0.563	0.236	0.295	0.298	0.0018	0.0020	0.034
NCS HS11717a-4	0.096	0.669	0.012	(0.050)	1.09	0.316	0.400	0.102	0.214	0.216	0.0085	0.0096	0.144
NCS HS11717a-5	0.243	1.04	0.030	0.042	0.769	0.248	0.393	0.106	0.101	0.104	0.0071	0.0074	0.105
NCS HS11717a-6	0.387	1.47	0.038	0.030	0.436	0.167	0.206	0.409	0.050	0.051	0.0047	0.0049	0.071
NCS HS11717a-7	0.498	2.10	0.050	0.022	0.176	0.075	0.107	0.612	0.022	0.024	0.0031	0.0033	0.196
Number	As	Bi	Co	N	Nb	Pb	Sb	Sn	Ti	V			
NCS HS11717a-1	0.0034	<0.00001	0.0015	0.0016	<0.0005	<0.0001	0.00041	0.00020	0.0002	(0.0001)			
NCS HS11717a-2	0.011	<0.00001	0.058	0.0017	0.031	<0.0001	0.00031	0.0073	0.020	0.011			
NCS HS11717a-3	0.019	<0.00001	0.099	0.0032	0.079	<0.0001	0.00041	0.016	0.049	0.052			
NCS HS11717a-4	0.073	(0.00001)	0.146	0.0031	0.223	<0.0001	0.00044	0.049	0.202	0.098			
NCS HS11717a-5	0.071	(0.00001)	0.296	0.0048	0.318	<0.0001	0.00052	0.099	0.178	0.257			
NCS HS11717a-6	0.045	(0.00001)	0.248	0.0049	0.106	<0.0001	0.00048	0.151	0.124	0.201			
NCS HS11717a-7	0.034	(0.00001)	0.198	0.0063	0.153	<0.0001	0.00050	0.197	0.088	0.147			

RM TOOL STEEL XRF SET

Part Number: BS TS-18 AVAILABLE INDIVIDUALLY 17025 ~7 mm discs

Grade	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	W	V	Co	N
A-2	BS 36C	0.96	0.46	0.023	0.027	0.31	0.18	0.19	5.01	0.99	.	(0.04)	0.11	0.03	.
A-10	BS A-10	1.41	1.75	0.016	0.022	1.15	0.16	1.82	0.24	1.53	0.006	<0.005	(0.004)	(0.010)	.
D-2	BS 37D	1.54	0.28	0.021	0.015	0.29	0.063	0.21	11.07	1.09	.	0.16	0.80	0.07	0.016
H-10	BS 49	0.36	0.33	0.014	0.015	0.92	0.072	0.20	3.51	2.41	0.004	0.31	0.62	2.00	0.0186
H-11	BS TH11	0.423	0.31	0.016	0.005	0.88	0.041	0.11	5.04	1.27	.	(0.01)	0.46	(0.008)	.
H-12	BS TH12	0.372	0.40	0.020	0.005	0.92	0.064	0.16	5.02	1.41	.	1.06	0.62	0.07	.
H-13	BS 34D	0.395	0.38	0.017	0.005	1.06	0.049	0.10	5.15	1.24	.	0.10	0.94	0.031	.
L-6	<u>BS 39B</u>	0.67	0.62	0.009	0.019	0.214	0.163	1.45	0.79	0.17	(0.011)	.	(0.01)	(0.02)	.
M-1	BS TM1	0.86	0.23	0.007	0.012	0.46	0.054	0.057	3.72	8.4	.	1.7	1.05	0.45	.
M-2	BS 32C	0.84	0.29	(0.018)	0.0010	0.29	0.13	0.35	3.98	4.85	(0.02)	6.3	2.03	0.31	.
O-1	<u>BS 35D</u>	0.879	1.13	0.021	0.024	0.22	0.141	0.132	0.495	0.035	(0.005)	0.46	0.181	0.012	.
O-6	<u>BS 41</u>	1.41	0.89	0.013	0.011	1.02	0.038	0.15	0.22	0.23	(0.007)	0.035	0.046	.	.
S-1	BS 33E	0.49	0.29	0.022	0.005	0.20	0.038	0.08	1.25	0.045	.	2.75	0.19	0.006	.
S-5	BS 38C	0.60	0.81	0.011	0.012	2.08	0.26	0.24	0.28	0.41	0.015	0.004	0.214	0.036	0.0081
S-7	BS TS7	0.529	0.70	0.016	0.010	0.27	0.05	0.10	3.18	1.34	.	0.19	0.35	0.043	.
T-1	<u>BS 30D</u>	0.745	0.348	0.029	0.0010	0.301	0.116	0.191	3.93	0.342	0.0123	17.73	1.077	0.101	0.0168
	BS 10V	2.46	0.52	0.019	0.079	0.89	0.076	0.08	5.41	1.30	<0.002	0.013	9.50	0.009	0.064
HP9-4-30	BS 9-4-30	0.30	0.22	0.008	<0.001	0.06	0.09	7.25	1.00	1.00	0.004	0.01	0.085	4.40	0.0015
Grade	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	W	V	Co	N

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= Class, where 1 = CRM, 2 = RM, and 3 = RM with no uncertainties

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	Ti	V	W
1	IARM 324A	0.99	1.01	0.009	0.028	0.163	0.22	0.081	0.42	0.002	0.007	0.022	0.0082	0.0016	0.0017	(0.003)
1	IARM 39B	0.99	0.54	0.017	0.003	0.35	0.10	0.14	4.79	0.006	0.014	1.01	0.0096	0.003	0.22	(0.026)
1	IARM 39C	0.99	0.45	0.019	0.007	0.28	0.077	0.144	4.99	0.017	0.013	0.97	0.011	0.0029	0.21	0.011
1	BS 36E *	0.98	0.55	0.019	0.002	0.27	0.052	0.14	4.91	0.014	0.014	0.99	0.009	0.003	0.20	0.015
2	BS 36D	0.97	0.68	0.021	0.007	0.27	0.060	0.089	5.25	0.010	0.010	0.96	0.0108	.	0.29	0.028
2	BS 36C	0.96	0.46	0.023	0.027	0.31	0.18	0.19	5.01	.	0.03	0.99	.	.	0.11	(0.04)
2	CT A2	0.95	0.72	0.010	0.004	0.40	0.06	0.10	5.13	.	.	1.05	.	.	0.22	.
2	CZ LA-4C	0.95	1.63	0.021	0.012	0.07	0.056	0.045	1.78	0.048	(0.006)	0.008	0.012	(0.002)	(0.010)	0.008
1	SS 485/1	0.94	0.41	0.043	0.039	0.30	.	(0.14)	4.02	(0.006)	4.97	0.66	.	.	1.02	17.8
1	IARM 320A	0.93	0.33	0.021	(0.0015)	0.36	0.091	0.204	4.22	0.023	4.90	4.79	(0.014)	0.0032	1.76	6.01
2	CT 01	0.91	1.27	0.009	0.004	0.36	0.05	0.06	0.49	.	.	0.07	.	.	0.25	0.51
1	ECRM 290-1D	0.91	0.24	0.016	0.016	0.08	0.081	0.33	4.18	.	5.12	4.81	0.0325	.	1.92	6.24
2	CT M10	0.88	0.27	0.016	0.004	0.30	0.061	0.14	3.97	.	0.012	7.89	.	.	1.99	0.008
2	BS 35D	0.879	1.13	0.021	0.024	0.22	0.141	0.132	0.495	(0.005)	0.012	0.035	.	(0.003)	0.181	0.46
2	HRT FE2023-N	0.873	1.53	0.108	0.0708	1.09	0.62	2.88	3.57	0.414	0.837	0.963	0.0142	0.165	0.597	0.462
2	BS TM1	0.86	0.23	0.007	0.012	0.46	0.054	0.057	3.72	.	0.45	8.4	.	.	1.05	1.7
1	IARM 304A	0.857	0.260	0.019	0.0016	0.36	0.14	0.133	3.55	0.009	0.278	8.04	0.034	0.002	1.23	1.65
1	IARM FeM2-18	0.853	0.337	0.025	(0.0010)	0.26	0.098	0.182	4.23	(0.014)	0.28	4.92	0.0148	(0.0016)	1.90	5.81
2	14X 14946D	0.85	0.53	0.051	0.048	0.46	0.25	1.06	5.06	.	0.44	0.21	.	.	1.03	16.9
2	BS 32D	0.85	0.30	0.027	0.0022	0.25	0.039	0.053	4.14	0.018	0.010	4.92	0.018	.	1.82	6.15
1	IARM FeM1-18	0.85	0.318	0.013	(0.003)	0.44	0.091	0.104	3.67	0.007	0.226	8.0	0.037	0.0044	1.19	1.98
1	IARM 306B	0.84	0.24	0.006	(0.001)	0.21	0.058	0.095	4.12	0.08	0.010	4.2	0.0049	(0.002)	0.98	(0.01)
1	SRM 1157	0.836	0.34	0.011	0.004	0.18	0.088	0.228	4.36	.	0.028	4.86	.	.	1.82	6.28
1	BS M-50	0.834	0.244	0.0066	0.0009	(0.205)	0.064	0.074	4.28	0.073	0.0151	4.29	0.0057	(0.0018)	0.99	0.0052
2	14X 14948C	0.83	0.65	0.011	0.017	0.26	0.04	0.29	4.04	.	0.16	0.14	.	.	0.65	18.8
2	CT M2	0.82	0.33	0.012	0.004	0.27	0.06	0.25	4.03	.	0.05	4.96	.	.	1.81	6.47
1	IARM 44C	0.82	0.301	0.027	0.004	0.31	0.12	0.132	4.04	0.05	0.247	5.02	0.033	0.004	1.91	6.0
2	CT M1	0.80	0.30	0.012	0.005	0.22	0.087	0.12	3.91	.	.	8.22	.	.	1.05	1.58
1	IARM FeT1-18	0.80	0.295	0.026	(0.0010)	0.30	0.034	0.14	3.98	0.054	0.096	0.124	0.0195	0.026	1.05	18.0
1	BS 30D	0.745	0.348	0.029	0.0010	0.301	0.116	0.191	3.93	0.0123	0.101	0.342	0.0168	0.0189	1.077	17.73
1	IARM 281A	0.74	0.30	0.015	0.019	0.29	0.096	0.15	3.89	0.007	4.8	0.49	0.0064	0.004	0.90	17.6
1	SS 486/1	0.74	0.21	0.029	0.021	0.27	.	(0.06)	4.54	(0.005)	0.08	5.20	.	.	1.82	5.80
3	CZ HS-1A	0.72	0.28	0.023	0.011	0.28	0.08	0.14	4.15	0.03	4.7	0.06	.	0.003	1.33	17.5
1	IARM 40C	0.72	1.91	0.014	0.012	0.32	0.142	0.255	0.99	0.019	0.010	1.27	0.0083	0.008	0.010	0.009
1	IARM FeL6-18	0.718	0.605	0.013	0.0017	0.264	0.027	1.34	0.71	0.020	0.007	0.237	0.0064	0.0033	0.008	.
2	BS 40B	0.71	2.28	0.020	0.006	0.35	0.076	0.089	1.18	0.002	0.020	1.07	0.0076	0.002	0.10	0.11
1	DSZU C076	0.69	0.18	0.024	0.022	0.58	0.120	0.213	5.75	.	13.88	4.29	.	.	2.03	9.81
1	IARM 40B	0.68	1.98	0.012	0.003	0.39	0.050	0.096	1.04	(0.006)	0.015	1.22	0.0107	0.003	0.014	0.013
2	BS 39B	0.67	0.62	0.009	0.019	0.214	0.163	1.45	0.79	(0.011)	(0.02)	0.17	.	.	(0.01)	.
1	DSZU C078	0.67	0.22	0.022	0.019	0.117	0.116	0.121	3.98	.	0.022	0.14	.	.	1.04	18.30
1	SS 483/1	0.65	0.22	0.023	0.023	0.16	.	(0.08)	2.90	.	2.06	0.18	.	.	0.22	9.28
2	BS 38C	0.60	0.81	0.011	0.012	2.08	0.26	0.24	0.28	0.015	0.036	0.41	0.0081	0.007	0.214	0.004

Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Sn	Ta	Zn	Zr	Units	Comment
IARM 324A	0.006	0.0004	0.0009	.	.	0.014	0.003	.	(0.002)	0.011	.	.	(0.001)	Disc 31 mm Ø x 2 mm	
IARM 39B	.	.	.	.	.	0.006	.	.	.	0.004	.	.	.	Disc 31 mm Ø x 2 or 18 mm	
IARM 39C	(0.005)	0.001	(0.001)	.	.	0.0040	0.001	(0.0001)	(0.002)	0.005	.	.	(0.002)	Disc 31 mm Ø x 2 or 18 mm	
BS 36E *	<0.005	<0.005	<0.005	91.8	.	0.003	0.001	<0.005	0.003	0.007	*	Provisional	0.001	Disc 38 mm Ø x ~7 or 19+ mm	
BS 36D	0.002	.	.	.	.	.	.	.	.	0.016	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm	
BS 36C	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm	
CT A2	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm	
CZ LA-4C	(0.003)	0.0005	.	.	.	0.053	.	.	.	(0.006)	.	.	.	Disc ~37 mm Ø x 25 mm	
SS 485/1	(0.022)	.	.	.	.	.	.	.	.	0.019	.	.	.	Disc 38 mm Ø x 19 mm	
IARM 320A	0.013	0.0011	.	.	.	(0.015)	(0.0021)	.	.	0.008	.	.	(0.003)	Disc 31 mm Ø x 2 or 18 mm	
CT 01	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~19 mm	
ECRM 290-1D	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 36 to 41 mm Ø x 28 to 35 mm	
CT M10	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm	
BS 35D	.	.	.	.	.	(0.001)	.	.	.	0.006	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm 17025	
HRT FE2023-N	0.097	0.0142	0.0021	.	.	0.674	.	0.0338	0.0793	0.113	(0.31)	0.0306	0.111	Disc 37 mm Ø x 40 mm Te: 0.0208	
BS TM1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 41 mm Ø x ~7 or 19+ mm	
IARM 304A	(0.01)	0.002	(0.002)	.	.	0.021	0.002	.	(0.001)	0.006	(0.002)	.	(0.002)	Disc 31 mm Ø x 2 mm	
IARM FeM2-18	(0.008)	.	.	81.4	.	(0.021)	(0.0016)	.	.	(0.007)	.	.	.	Disc 31 mm Ø x 2 or 18 mm	
14X 14946D	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
BS 32D	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm	
IARM FeM1-18	.	.	.	.	.	.	.	.	.	0.0041	(0.0024)	.	0.0013	Disc ~38 mm Ø x ~3 or ~19 mm	
IARM 306B	(0.003)	(0.001)	.	.	.	0.007	(0.001)	(0.001)	0.0025	0.004	.	.	(0.002)	Disc 31 mm Ø x 2 or 18 mm	
SRM 1157	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 32 mm Ø x 19 mm	
BS M-50	0.0035	(0.0001)	(0.001)	88.8	(0.0002)	0.0008	0.0010	(0.0001)	(0.0006)	0.0045	(0.00001)	.	(0.0006)	Disc 38 mm Ø x ~7 or 19+ mm 17025	
14X 14948C	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm last	
CT M2	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm	
IARM 44C	(0.01)	(0.002)	.	.	.	0.012	(0.003)	(0.002)	(0.004)	0.010	(0.004)	(0.006)	(0.002)	Disc 31 mm Ø x 2 mm last	
CT M1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm	
IARM FeT1-18	.	.	.	.	.	(0.004)	(0.0027)	.	.	(0.010)	.	.	.	Disc 31 mm Ø x ~2 or 18 mm	
BS 30D	0.0128	(0.0002)	0.0004	[75.0]	(0.001)	0.0071	0.0019	(0.0002)	0.0032	0.0246	(0.02)	.	(0.0001)	Disc 38 mm Ø x ~7 or 19+ mm 17025	
IARM 281A	(0.02)	(0.003)	.	.	(0.003)	0.094	(0.003)	.	.	0.02	.	.	(0.002)	Disc 31 mm Ø x 2 or 18 mm	
SS 486/1	(0.016)	.	.	.	.	.	.	.	.	0.014	.	.	.	Disc 38 mm Ø x 19 mm	
CZ HS-1A	.	.	.	.	.	.	.	.	.	0.02	.	.	.	Disc ~39 mm Ø x 25 mm	
IARM 40C	0.008	0.0009	(0.001)	.	.	0.003	0.0013	.	.	0.008	.	.	(0.002)	Disc 31 mm Ø x 2 or 18 mm	
IARM FeL6-18	0.0033	(0.0008)	.	.	.	(0.003)	0.0012	.	.	.	.	.	.	Disc 38 mm Ø x 2 or 19 mm	
BS 40B	0.004	0.0006	.	.	.	.	.	.	.	0.005	.	.	.	Disc 41 mm Ø x ~7 or 19+ mm	
DSZU C076	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
IARM 40B	.	(0.0010)	.	.	.	0.005	(0.0014)	.	.	0.004	.	.	.	Disc 31 mm Ø x 2 or 18 mm	
BS 39B	.	.	.	.	.	.	.	.	.	(0.011)	.	.	.	Disc 41 mm Ø x ~7 or 19+ mm 17025	
DSZU C078	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
SS 483/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 19 mm	
BS 38C	0.011	.	.	.	.	(0.002)	.	0.022	.	0.022	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm	
Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Sn	Ta	Zn	Zr	Units	Comment

TOOL STEEL CHART 3 of 4

= Class, where 1 = CRM, 2 = RM, and 3 = RM with no uncertainties

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	Ti	V	W
1	ECRM 179-2D	0.598	0.539	0.0267	.	0.579	0.111	0.0741	1.08	.	.	0.070	0.0068	.	0.188	1.87
1	DSZU C079	0.59	0.38	0.024	0.012	0.43	0.154	0.541	4.00	.	0.039	4.10	.	.	0.90	0.06
1	IARM 47B	0.59	0.79	0.017	0.006	1.96	0.17	0.090	0.23	0.014	0.007	0.20	0.0092	0.010	0.17	(0.016)
1	BS TS-5 *	0.58	0.63	0.006	0.002	1.89	0.035	0.046	0.20	0.035	0.004	0.27	0.006	0.006	0.20	0.006
1	BS 33F	0.569	0.295	0.0134	0.0009	0.76	0.039	0.211	1.31	0.019	0.017	0.202	0.0124	(0.002)	0.25	2.28
1	BS TS-7A	0.527	0.74	0.013	0.016	0.84	0.127	(0.031)	3.35	0.061	(0.005)	1.62	0.0124	(0.003)	0.265	(0.0014)
2	BS 33D	0.515	0.31	0.016	0.020	0.312	0.040	0.059	1.28	0.008	0.045	0.050	.	.	0.22	2.65
1	IARM FeS7-18	0.51	0.271	0.021	0.0032	0.47	0.128	0.170	3.28	(0.015)	0.0106	1.39	0.0102	0.0014	0.233	(0.016)
1	IARM 34C	0.50	0.739	0.0090	0.0011	0.30	0.078	0.085	0.914	0.068	0.005	0.022	0.0030	0.0045	0.206	(0.003)
2	BS 33E	0.49	0.29	0.022	0.005	0.20	0.038	0.08	1.25	.	0.006	0.045	.	(0.002)	0.19	2.75
1	BS 43A	0.49	0.82	0.0074	0.025	0.252	0.18	0.24	0.92	(0.003)	0.008	0.059	0.0072	(0.002)	0.145	(0.005)
2	CT X67975	0.48	0.56	0.009	0.005	0.28	0.060	0.13	1.00	.	.	0.53	.	.	0.30	.
1	IARM 259A	0.479	0.399	0.020	0.0007	0.44	0.081	0.194	3.27	0.016	0.011	1.43	0.0077	0.0026	0.256	0.035
1	SRM 1772	0.477	0.61	0.008	0.0031	0.264	0.083	0.105	3.10	.	.	1.39	.	.	0.236	.
1	BS D-6	0.472	0.78	0.007	0.0008	0.228	0.130	0.602	0.99	0.037	0.012	1.01	0.0031	0.0025	0.122	0.0018
1	BS D-6A	0.47	0.78	0.0076	0.0010	0.232	0.136	0.60	0.99	0.038	0.013	1.00	0.0031	0.0024	0.123	0.0019
1	IARM 299A	0.469	0.70	0.008	0.002	0.22	0.100	0.57	1.03	0.092	0.0054	0.99	0.0028	0.0038	0.120	0.010
1	IMZ 57/1	0.46	1.05	0.028	0.012	0.58	0.14	0.15	1.67	.	.	0.48	.	.	0.34	.
1	IARM 46B	0.45	0.27	0.019	0.0040	0.89	0.147	0.108	1.09	0.011	0.013	0.222	0.0069	0.007	0.170	1.96
2	BS TH11	0.423	0.31	0.016	0.005	0.88	0.041	0.11	5.04	.	(0.008)	1.27	.	.	0.46	(0.01)
1	IMZ 53/1	0.41	0.60	0.018	0.011	0.104	0.17	0.28	2.85	.	.	0.13	.	.	0.28	.
1	IMZ 56/1	0.41	0.25	0.011	0.007	1.69	0.41	0.69	0.43	.	.	0.66	.	.	0.19	.
1	BS H-19	0.404	0.318	0.014	0.011	0.29	0.055	0.114	4.27	<0.001	4.17	0.356	0.0190	(0.002)	2.05	4.02
1	IARM 255A	0.403	0.27	0.013	0.0012	0.93	0.049	0.083	4.84	0.01	0.009	1.33	0.0067	0.002	0.43	0.007
1	IMZ 51/1	0.40	1.53	0.023	(0.009)	0.29	0.45	0.15	0.62	.	.	1.50	.	.	(0.013)	.
1	IMZ 58/1	0.40	1.81	0.026	0.012	0.35	0.31	1.44	0.20	.	.	0.21	.	.	0.079	.
1	ECRM 276-2D	0.399	0.365	0.0093	0.0189	1.034	0.183	0.203	4.975	.	.	1.134	0.0116	.	0.296	.
2	BS 34D	0.395	0.38	0.017	0.005	1.06	0.049	0.10	5.15	.	0.031	1.24	.	.	0.94	0.10
1	BS H-13A	0.391	0.445	0.0187	(0.003)	1.13	0.083	0.139	5.11	(0.03)	0.033	1.32	0.034	(0.03)	0.92	0.100
2	CT H13	0.39	0.30	0.015	0.005	1.05	0.061	0.10	5.23	.	.	1.36	.	.	1.02	.
1	IARM 255B	0.389	0.317	0.010	(0.002)	0.91	0.073	0.062	4.82	0.032	0.0090	1.30	(0.005)	.	0.515	.
1	IARM 42C	0.382	0.40	0.022	0.0037	0.85	0.066	0.051	4.86	0.018	0.022	1.29	0.0201	0.0125	0.84	0.32
2	BS 68C	0.38	0.60	0.018	0.008	0.305	0.178	0.166	1.77	1.06	0.011	0.36	0.0045	.	0.007	.
2	BS TH12	0.372	0.40	0.020	0.005	0.92	0.064	0.16	5.02	.	0.07	1.41	.	.	0.62	1.06
1	ECRM 271-1D	0.3698	0.437	0.0120	0.00045	0.923	0.1371	0.1552	5.002	0.0234	0.0139	1.247	0.0137	0.0020	0.850	0.0054
2	BS 49	0.36	0.33	0.014	0.015	0.92	0.072	0.20	3.51	0.004	2.00	2.41	0.0186	0.003	0.62	0.31
1	IMZ 174	0.33	0.32	0.029	0.023	0.93	0.17	0.13	5.10	0.080	0.011	1.24	0.0288	(0.001)	0.98	0.021
2	BS 9-4-30	0.316	0.22	0.008	<0.002	0.06	0.088	7.25	1.00	0.004	4.46	1.01	0.0014	.	0.09	.
1	IMZ 173	0.30	0.43	0.029	0.020	1.15	0.32	0.42	5.52	0.060	(0.013)	1.50	0.0342	(0.002)	0.47	0.10
1	IARM 341A	0.298	0.226	0.0038	0.0008	0.10	0.143	7.16	0.99	0.032	4.4	1.01	0.0025	0.003	0.086	(0.01)

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	Ti	V	W
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Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Sn	Ta	Zn	Zr	Units	Comment
ECRM 179-2D	.	.	.	.	.	0.00144	.	0.00013	0.00175	.	.	0.00023	.	Disc 38 mm Ø x 35 mm	Ga: 0.00129
DSZU C079	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~35 mm Ø x 25 mm	
IARM 47B	.	(<0.001)	.	.	.	(0.002)	(0.0014)	(0.0003)	.	0.08	.	.	.	Disc 31 mm Ø x 2 or 18 mm	
BS TS-5 *	<0.005	.	.	[96.1]	.	0.001	<0.005	.	.	0.002	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm	* Provisional
BS 33F	(0.003)	(0.0007)	.	94.0	.	(0.002)	0.0024	(0.0004)	(0.01)	(0.004)	.	.	(0.002)	Disc 38 mm Ø x ~7 - 19+ mm	17034
BS TS-7A	(0.005)	0.0021	0.0004	92.3	<0.005	<0.01	(0.005)	<0.001	<0.01	(0.004)	<0.05	.	(0.0015)	Disc 36 mm Ø x 25 mm	17034
BS 33D	.	.	.	.	.	.	.	.	.	0.005	.	.	.	Disc 41 mm Ø x 12+ mm	
IARM FeS7-18	(0.005)	.	.	(93.6)	.	(0.005)	0.0023	0.0003	(0.0016)	(0.006)	.	(0.0011)	.	Disc 31 mm Ø x 2 or 18 mm	
IARM 34C	0.0024	0.0003	(0.0004)	.	.	0.004	0.0008	(0.0003)	(0.001)	0.0058	.	.	(0.001)	Disc 31 mm Ø x 2 or 18 mm	
BS 33E	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 12+ mm	
BS 43A	(0.005)	(0.0002)	(0.0006)	[96.8]	(0.0001)	(0.0017)	(0.003)	.	(0.002)	0.011	.	.	(0.001)	Disc 41 mm Ø x ~7 or 19+ mm	17034
CT X67975	.	.	.	.	.	.	.	<0.001	.	0.003	.	.	.	Disc 30-35 mm Ø x ~16 mm	last
IARM 259A	0.006	0.0003	.	.	.	0.003	0.0014	<0.0005	.	0.004	.	.	0.001	Disc 31 mm Ø x 2 mm	
SRM 1772	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 34 mm Ø x 19 mm	
BS D-6	0.011	(0.0003)	0.0011	.	0.0002	(0.002)	(0.0008)	(0.0003)	0.0012	0.0104	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm	17025
BS D-6A	0.0101	0.0004	0.0011	95.6	(0.00014)	<0.01	0.0009	(0.0006)	0.0014	(0.009)	(0.011)	.	<0.01	Disc 38 mm Ø x 19 mm	17034, last
IARM 299A	0.003	0.0003	(0.001)	.	.	0.006	(0.002)	(0.001)	(0.002)	0.0055	.	.	(0.001)	Disc 31 mm Ø x 2 or 18 mm	
IMZ 57/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
IARM 46B	(0.01)	0.0003	.	.	.	0.003	0.002	<0.002	.	0.016	.	.	.	Disc 31 mm Ø x 2 or 18 mm	
BS TH11	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm	
IMZ 53/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
IMZ 56/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
BS H-19	0.0056	.	.	.	.	0.008	0.0071	.	.	0.0056	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm	17025
IARM 255A	(0.002)	0.0004	(0.0004)	.	.	0.004	0.0011	<0.001	.	0.006	.	.	<0.005	Disc 31 mm Ø x 2 mm	
IMZ 51/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
IMZ 58/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
ECRM 276-2D	.	.	.	.	.	.	.	.	.	0.0133	.	.	.	Disc 38 mm Ø x 25 or 30 mm	
BS 34D	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 41 mm Ø x ~7 mm	last
BS H-13A	0.0050	(0.0007)	(0.0006)	90.2	(0.0002)	0.0052	(0.016)	(0.0004)	(0.002)	(0.005)	.	.	(0.002)	Disc 38 mm Ø x ~7 or 19+ mm	17034
CT H13	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm	
IARM 255B	.	.	.	.	.	(0.006)	.	.	.	(0.006)	.	.	.	Disc 31 mm Ø x 2 or 18 mm	
IARM 42C	(0.01)	0.0011	(0.0005)	.	.	(0.004)	0.003	0.0007	(0.004)	(0.006)	(0.004)	(0.008)	(0.002)	Disc 31 mm Ø x 2 or 18 mm	
BS 68C	(0.004)	.	(0.0002)	.	.	.	(0.001)	.	.	0.008	.	.	.	Disc 37 mm Ø x ~7 or 19+ mm	
BS TH12	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x ~7 mm	last
ECRM 271-1D	0.0057	.	0.0009	.	.	.	0.0020	.	.	0.0084	.	.	.	Disc 35 mm Ø x 25 mm	
BS 49	.	.	.	.	.	.	.	.	.	(0.004)	.	.	.	Disc 49 mm Ø x ~7 or 19+ mm	
IMZ 174	.	.	.	.	.	.	.	.	.	0.010	.	.	.	Disc 40 mm Ø x 40 mm	
BS 9-4-30	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 35 mm Ø x ~7 or 19+ mm	
IMZ 173	.	.	.	.	.	.	.	.	.	0.012	.	.	.	Disc 40 mm Ø x 40 mm	
IARM 341A	(0.003)	0.0005	0.0011	.	.	(0.005)	0.0008	(0.001)	(0.001)	(0.005)	.	(0.0002)	(0.003)	Disc 31 mm Ø x 2 or 18 mm	

Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Sn	Ta	Zn	Zr	Units	Comment
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TOOL STEEL CHART 4 of 4

= Class, where 1 = CRM, 2 = RM, and 3 = RM with no uncertainties

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	Ti	V	W
1	IMZ 178	0.29	0.65	0.016	0.003	0.28	0.140	2.09	1.26	0.051	0.015	0.20	0.0160	.	0.011	0.017
2	HRT 500-100	0.235	0.146	0.0119	0.0174	0.0285	0.051	3.38	0.101	0.0349	0.050	3.23	0.0065	0.0082	(0.0051)	1.81
1	IMZ 171	0.195	0.42	0.020	0.014	0.21	0.116	0.59	11.44	0.036	0.024	1.23	0.057	(0.001)	0.26	.
1	IMZ 196	0.179	0.42	0.018	0.012	0.46	0.080	0.44	11.04	0.029	1.55	0.65	0.058	.	0.34	1.54
1	IMZ 170	0.155	0.50	0.018	0.014	0.32	0.285	0.63	8.82	0.11	(0.022)	0.88	0.065	(0.002)	0.24	(0.19)
1	IMZ 176A	0.15	0.75	0.018	0.003	0.35	0.103	3.62	0.41	(0.058)	(0.010)	0.027	0.0129	.	(0.061)	(0.015)
2	CZ CM-17A	0.142	0.524	0.0310	0.0175	0.612	0.201	0.520	9.58	0.0089	0.0329	1.116	0.0743	0.0236	0.247	0.099
1	VS LG43/1	0.132	0.44	(0.01)	(0.01)	0.57	(0.11)	0.44	7.46	.	.	0.023	.	.	0.49	.
1	IMZ 197	0.130	0.45	0.021	0.007	0.47	0.11	0.053	0.20	8.45	.	(0.011)	.	0.025	0.025	.
1	NCS HS20741	0.125	0.957	0.017	0.0045	0.431	.	.	12.91	.	.	0.41	.	.	.	.
1	VS LG42/1	0.124	0.41	(0.02)	(0.008)	0.46	(0.16)	0.37	5.08	.	.	0.52	.	.	0.020	.
1	VS LG37/1	0.121	0.444	(0.02)	(0.01)	0.360	(0.13)	0.704	10.10	.	.	0.66	.	.	0.385	.
1	IARM 35L	0.119	0.535	0.007	0.014	0.679	0.123	0.071	1.35	0.017	0.0070	0.607	0.0072	(0.0015)	0.0037	(0.004)
1	IMZ 179	0.114	0.83	0.016	0.003	0.375	0.164	9.98	0.20	0.061	0.016	0.12	0.0108	.	0.023	(0.023)
1	IMZ 175	0.099	0.25	0.016	0.0040	0.22	0.130	3.12	0.515	0.043	(0.013)	0.025	0.0099	.	0.014	(0.019)
1	IMZ 157	0.095	0.63	0.015	0.010	0.59	0.066	0.50	9.51	0.26	.	0.71	0.051	0.044	0.26	.
1	IMZ 177	0.076	0.32	0.013	0.003	0.24	0.110	8.33	0.18	0.043	(0.017)	0.022	0.0089	.	0.010	.
1	13X 14713A	0.0446	0.495	0.0203	0.0080	0.911	0.0368	0.122	7.17	0.551	0.0110	0.0266	0.0065	0.0056	0.0411	.
1	SS 422	(0.036)	(0.09)	(0.015)	(0.025)	(0.06)	.	.	.	.	.	(0.033)	.	.	(<0.02)	1.28
1	IMZ 101/2	0.033	1.97	0.010	0.007	(0.092)	0.46	2.06	0.035	0.036	.	0.010	.	.	0.30	.
1	SS 423	(0.030)	(0.07)	(0.017)	(0.027)	(0.05)	.	.	.	.	.	(0.027)	.	.	(<0.02)	2.06
1	SS 424	(0.024)	(0.09)	(0.02)	(0.024)	(0.05)	.	.	.	.	.	(0.036)	.	.	(<0.02)	3.02
2	IARM 180A	0.007	0.41	0.004	0.046	0.023	0.89	1.29	0.037	0.76	0.004	0.006	0.0096	0.002	0.76	1.48
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	Ti	V	W

Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Sn	Ta	Zn	Zr	Units	Comment
IMZ 178	.	.	.	.	.	0.105	.	.	.	0.011	.	.	.	Disc 40 mm Ø x 40 mm	
HRT 500-100	0.0052	.	.	.	.	0.0127	.	.	.	0.0055	.	.	.	Disc 37 mm Ø x 25 mm	
IMZ 171	.	.	.	.	.	.	.	.	(0.003)	0.008	.	.	.	Disc 40 mm Ø x 40 mm	
IMZ 196	.	0.065	.	.	.	0.073	.	.	.	.	.	.	.	Disc 37 mm Ø x 30 mm	
IMZ 170	.	.	.	.	.	0.087	.	.	(0.002)	0.007	.	.	.	Disc 40 mm Ø x 40 mm	
IMZ 176A	.	.	.	.	.	.	.	.	.	0.009	.	.	.	Disc 40 mm Ø x 40 mm	
CZ CM-17A	0.0105	0.0060	.	.	.	.	.	0.0177	.	0.0109	.	.	.	Disc ~37 mm Ø x ~25 mm	
VS LG43/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~28 mm	
IMZ 197	.	(0.007)	.	.	.	(0.011)	.	.	.	0.015	.	.	.	Disc 37 mm Ø x 30 mm	
NCS HS20741	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 35 mm Ø x 40 mm	
VS LG42/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~28 mm	
VS LG37/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~28 mm	
IARM 35L	0.0045	0.00044	.	.	.	(0.0026)	.	.	.	0.0088	.	.	.	Disc 31 mm Ø x 2 mm	
IMZ 179	(0.007)	.	.	.	.	(0.004)	.	.	.	0.010	.	.	.	Disc 40 mm Ø x 40 mm	
IMZ 175	.	.	.	.	.	.	.	.	.	0.011	.	.	.	Disc 40 mm Ø x 40 mm	
IMZ 157	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
IMZ 177	.	.	.	.	.	.	.	.	.	0.008	.	.	.	Disc 40 mm Ø x 40 mm	
13X 14713A	.	.	.	0.0016	.	.	.	.	.	0.0034	.	.	.	Disc ~40 mm Ø x ~15 mm	
SS 422	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 19 mm	
IMZ 101/2	.	(0.0005)	.	.	.	.	.	.	.	.	.	.	(0.002)	Disc 40 mm Ø x 40 mm	
SS 423	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 19 mm	
SS 424	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 19 mm	
IARM 180A	(0.004)	0.0004	.	.	.	(0.005)	0.0006	(0.002)	.	0.002	.	.	.	Disc 31 mm Ø x 2 mm	
Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Sn	Ta	Zn	Zr	Units	Comment

MARAGING STEEL AND COBALT IN STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM, 2 = RM

#	Number	Co	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	N	Ti	V	W
1	IMZ 521	20.25	0.015	0.039	0.0031	0.0058	0.072	0.027	8.63	0.040	.	4.84	0.0113	.	3.97	5.23
1	IMZ 522	18.72	0.0088	0.032	(0.003)	0.0043	0.048	0.019	11.47	0.022	.	6.45	0.0045	0.54	2.21	2.25
1	IMZ 520	17.66	0.011	0.070	0.0043	0.019	0.094	0.080	10.10	0.242	.	4.92	0.0105	(0.007)	4.03	4.90
1	IARM FeKovar-18	17.3	0.024	0.26	(0.004)	(0.0055)	(0.09)	0.077	29.0	0.068	.	0.062	.	.	.	(0.020)
1	BS 160B	17.24	0.022	0.27	0.0033	0.0032	0.112	0.059	29.13	0.06	(0.005)	0.047	0.0006	(0.003)	0.0039	(0.011)
1	BS 160A	17.0	0.0064	0.180	0.0007	(0.0002)	0.158	0.026	29.6	0.0138	0.088	0.0100	0.0026	0.026	0.0008	(0.0001)
1	IARM 98B	17.0	0.007	0.18	0.002	0.0007	0.17	0.028	29.4	0.012	0.07	0.010	0.0024	0.03	(0.003)	(0.02)
1	IMZ 523	14.44	0.0098	0.051	(0.004)	0.0039	0.043	0.059	15.94	0.048	.	6.67	0.0037	0.70	2.01	1.87
1	IARM 242A	13.5	0.24	0.018	0.002	0.0004	0.02	0.007	11.1	3.00	0.004	1.21	0.0003	0.009	0.01	<0.01
1	IARM FeA100-18	13.4	0.222	(0.013)	(0.004)	(0.0010)	(0.039)	(0.010)	11.2	2.98	(0.007)	1.19	(0.0010)	(0.008)	(0.007)	(0.006)
2	CT ISO045A	13.39	0.228	0.002	0.001	0.0004	<0.010	0.006	11.38	3.12	0.004	1.18	.	0.005	.	.
1	IARM 309A	12.3	0.0059	0.018	0.004	0.0006	0.020	0.023	18.4	0.053	0.11	4.71	0.0010	1.47	0.01	0.01
1	IMZ 524	12.25	0.012	0.68	(0.004)	0.004	0.13	0.024	13.75	0.085	.	4.95	0.0038	0.85	3.02	1.84
1	DSZU C093	12.08	0.013	0.32	(0.006)	(0.007)	(0.10)	(0.12)	15.80	0.42	0.17	3.79	.	1.56	.	.
1	BS 161B	9.28	0.0031	0.010	(0.004)	0.0007	0.0107	0.010	18.56	0.034	0.073	4.87	0.0011	0.67	0.0011	0.010
1	IARM 99D	9.24	(0.006)	(0.013)	(0.004)	0.0011	(0.03)	(0.045)	18.4	(0.12)	0.117	4.8	(0.0014)	0.67	(0.037)	(0.010)
1	BS 161A	9.22	0.004	0.031	0.004	0.0007	0.032	0.22	18.40	0.12	0.14	4.82	(0.002)	0.65	0.031	(0.008)
2	CT 300	9.07	0.005	0.032	0.005	0.004	0.030	0.047	18.51	0.034	0.12	4.97	.	0.69	.	.
1	DSZU C091	8.07	0.035	0.092	(0.006)	(0.011)	(0.09)	(0.12)	18.20	0.12	0.05	4.98	.	0.81	.	.
1	IARM FeC250-21	7.92	0.0028	0.022	0.0033	0.0006	0.0091	(0.0041)	18.6	(0.0093)	0.101	4.93	0.0004	0.418	(0.0074)	(0.0069)
1	BS M250	7.9	0.0021	0.024	0.0031	(0.0005)	(0.003)	(0.003)	18.7	(0.004)	0.098	4.93	<0.005	0.422	<0.05	(0.007)
1	IARM 308A	7.80	0.003	0.019	0.004	0.0005	0.014	0.018	18.53	0.023	0.097	4.78	0.0013	0.46	0.01	0.01
1	ECRM 285-2D	7.76	0.0018	0.0168	0.0053	0.0025	0.0117	0.0094	18.07	0.0236	0.1067	4.99	0.0007	0.520	.	.
2	CT 250	7.54	0.002	0.006	0.003	0.002	0.008	0.008	18.44	0.008	0.058	4.88	.	0.41	.	.
2	DSZU C55	5.75	(0.19)	0.73	(0.042)	.	0.68	.	2.24	14.9	.	1.32	(0.11)	.	0.29	(1.17)
1	DSZU C092	5.21	0.015	0.27	(0.006)	(0.009)	(0.10)	(0.16)	20.12	0.23	(0.006)	5.50	.	(0.008)	.	.
2	DSZU C53	5.20	(0.26)	0.82	(0.036)	.	0.29	.	1.47	14.8	.	1.71	.	.	0.33	(0.59)
2	DSZU C54	5.19	(0.06)	0.60	(0.036)	.	0.56	.	1.88	18.5	.	1.47	(0.13)	.	0.47	(0.71)
2	DSZU C51	4.07	(0.16)	0.40	(0.019)	.	0.25	.	1.67	10.8	.	0.68	(0.09)	.	0.15	(0.32)

#	Number	Co	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	N	Ti	V	W
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Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Sn	Ta	Zr	Comment
IMZ 521	.	.	.	.	.	.	.	.	.	(0.002)	.	.	Disc 38 mm Ø x 20 mm
IMZ 522	.	.	.	.	.	(0.008)	.	.	.	(0.001)	.	.	Disc 38 mm Ø x 20 mm
IMZ 520	.	(0.001)	.	.	.	(0.008)	.	.	.	(0.002)	.	.	Disc 38 mm Ø x 20 mm
IARM FeKovar-18	.	.	.	53.3	.	.	.	.	.	0.0021	.	.	Disc 31 mm Ø x 2 or 18 mm
BS 160B	<0.005	0.0003	0.0004	53.0	<0.005	0.0015	0.0010	<0.005	(0.0009)	0.0020	<0.005	(0.0027)	Disc 38 mm Ø x ~7 or 19+ mm 17034
BS 160A	0.0011	0.0010	(0.0004)	52.9	0.0032	0.0014	0.0022	(0.00006)	(0.0004)	0.0024	(0.0001)	0.0048	Disc 38 mm Ø x 19 mm 17025
IARM 98B	<0.002	0.001	<0.0005	52.9	0.0040	0.002	0.0021	<0.0005	.	0.002	<0.05	<0.01	Disc 31 mm Ø x 2 mm
IMZ 523	.	.	.	.	.	(0.008)	.	.	.	(0.001)	.	.	Disc 38 mm Ø x 20 mm
IARM 242A	.	(0.0005)	.	.	.	0.004	0.0006	.	.	(0.001)	0.008	.	Disc 31 mm Ø x 2 mm
IARM FeA100-18	.	.	.	.	.	(0.003)	(0.0009)	.	.	.	.	.	Disc 31 mm Ø x 2 or 18 mm
CT ISO045A	.	.	.	70.70	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~19 mm
IARM 309A	(0.004)	0.0032	<0.001	.	.	0.004	0.0005	.	.	(0.001)	(0.006)	0.008	Disc 31 mm Ø x 2 mm
IMZ 524	(0.003)	.	.	.	.	(0.007)	.	.	.	.	.	.	Disc 38 mm Ø x 20 mm
DSZU C093	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x 17 mm
BS 161B	.	0.0027	.	66.6	.	(0.0034)	0.0005	.	.	(0.0011)	(0.017)	(0.005)	Disc 41 mm Ø x ~7 or 19+ m 17034
IARM 99D	.	0.0026	.	.	.	(0.011)	.	.	.	.	.	.	Disc 31 mm Ø x 2 or 18 mm
BS 161A	(0.002)	0.0023	(0.0008)	.	.	(0.004)	(0.0004)	.	.	(0.0015)	(0.03)	(0.002)	Disc 38 mm Ø x ~12 or 19 mm ISO 25, last
CT 300	.	0.0020	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm
DSZU C091	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x 17 mm
IARM FeC250-21	(0.0011)	0.0029	.	Rem	.	0.0019	0.0006	.	(0.0044)	(0.0015)	(0.0128)	(0.0031)	Disc 38 mm Ø x 3 or 19 mm
BS M250	.	0.0029	(0.003)	67.8	<0.005	<0.005	0.0005	.	<0.0005	<0.005	<0.005	0.0048	Disc 38 mm Ø x ~7 or 19+ mm 17034
IARM 308A	.	0.0029	.	.	.	0.003	0.0005	.	.	0.001	<0.01	0.01	Disc 31 mm Ø x 2 mm
ECRM 285-2D	.	0.0009	.	.	.	.	.	.	.	.	.	0.0050	Disc 38 mm Ø x 25 or 30 mm
CT 250	.	0.0024	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~19 mm
DSZU C55	.	.	.	.	.	0.27	.	.	.	.	.	.	Disc 42 mm Ø x 25 mm
DSZU C092	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x 17 mm
DSZU C53	.	.	.	.	.	0.13	.	.	.	.	.	.	Disc 42 mm Ø x 25 mm
DSZU C54	.	.	.	.	.	0.40	.	.	.	.	.	.	Disc 42 mm Ø x 25 mm
DSZU C51	.	.	.	.	.	0.10	.	.	.	.	.	.	Disc 42 mm Ø x 25 mm

Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Sn	Ta	Zr	Comment
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MANGANESE STAINLESS STEEL

= Class, where 1 = CRM, 2 = RM, and 3 = RM with no uncertainties

#	Number	Mn	C	P	S	Si	Cu	Ni	Cr	Al	Mo	N	Nb	Ti	V	W
1	IARM 295A	19.7	0.021	0.028	0.0041	0.36	0.113	1.84	18.0	(0.01)	0.97	0.62	0.018	0.0019	0.046	0.016
1	ECRM 294-1D	18.68	0.0657	0.0271	0.00031	0.283	0.0242	0.429	17.98	(0.0095)	0.0861	0.566	(0.00117)	(0.0008)	0.0694	(0.00114)
1	IARM 214A	18.3	0.018	0.033	0.002	1.00	0.36	2.33	12.36	(0.002)	0.44	0.27	0.23	0.002	0.04	0.02
1	VS RG20/1	15.77	0.064	(0.02)	(0.01)	0.81	0.265	0.673	14.35		0.089		0.175	0.093	0.166	0.007
1	VS RG22/1	13.41	0.054	(0.02)	(0.008)	0.63	0.358	3.94	13.25		0.121		0.38	0.33	0.125	0.137
2	BS 193	12.11	0.104	0.018	0.002	0.66	0.088	1.82	18.48	(0.003)	0.21	0.37	0.014	0.003	0.107	(0.007)
2	CT ISO035A	12.04	0.102	0.023	0.002	0.59	0.17	1.81	18.48	<0.004	0.28	0.33	0.004	0.001	0.058	0.002
1	13X NSC3AB	11.00	0.74	0.019	0.010	1.39	0.287	3.19	24.1	0.035	0.059	0.51	2.56	(0.009)	0.158	0.034
1	IARM 296A	10.6	0.074	0.027	0.002	0.38	0.12	1.71	11.2	(0.005)	0.60	0.23	0.043	(0.002)	0.056	(0.01)
2	BS 190	9.72	0.022	0.015	0.001	0.46	0.072	6.74	19.57	(0.004)	0.15	0.255	(0.004)	0.002	0.11	0.015
2	CT ISO129A	9.31	0.030	0.002	<0.001	0.40	0.152	6.86	19.62	0.014	0.25	0.264	0.025		0.144	0.03
1	IARM FeN40-18	9.13	0.019	0.025	0.0012	0.31	0.421	6.42	19.45		0.343	0.348	0.032		0.086	0.030
1	13X NSC6A	8.85	0.0266	0.0049	0.0055	0.523	0.0064	6.52	20.47	(0.009)	(0.002)	0.235			0.0052	
1	VS RG23/1	8.74	0.045	(0.02)	(0.004)	0.49	0.099	1.98	18.5		0.401		0.24	0.21	0.69	0.3
1	IARM 18D	8.1	0.069	0.032	0.0025	3.68	0.421	8.39	16.7	(0.006)	0.325	0.170	(0.031)	0.012	0.064	(0.026)
1	BS 181B	8.07	0.070	0.021	0.0009	3.94	0.206	8.18	16.17		0.173	0.158	0.026	0.0051	0.044	0.016
1	NM 303	7.21	0.16	0.035	0.050	0.40	0.68	1.59	12.68		0.17				0.071	
1	SRM 1297	7.11	0.066	0.038	0.0033	0.397	0.442	5.34	16.69		0.331				0.090	
1	13X NSC1Q	6.79	0.269	0.0103	(0.007)	0.93	0.438	5.10	19.46	0.034	0.240	0.087	1.48	0.004	0.540	0.104
1	VS RG21/1	6.39	0.169	(0.02)	(0.008)	1.95	0.17	7.52	15.53		0.88		0.48	0.18	1.71	(0.2)
2	BS 191	5.71	0.098	0.024	0.023	3.73	0.33	5.34	16.33	(0.002)	0.36	0.117	0.024	0.012	0.083	0.033
1	VS RG19/1	5.63	0.064	(0.02)	(0.009)	0.90	(0.2)	17.73	24.5		0.166		0.108	0.14	0.407	0.206
1	IARM FeN50-18	5.27	0.030	0.026	(0.0013)	0.24	0.28	11.90	21.0	(0.006)	2.01	0.26	0.18	(0.002)	0.121	0.023
1	13X NSA10A	5.23	0.0180	0.0206	0.0007	0.375	0.170	12.98	20.67		2.636	0.342	0.143		0.151	(0.061)
2	BS 180A	5.05	0.018	0.012	0.001	0.32	0.067	13.19	21.09	0.012	2.04	0.334	0.20	(0.002)	0.20	0.02
1	IARM 292A	5.0	0.030	0.018	0.001	0.75	0.29	1.47	21.35	0.010	0.097	0.245	0.009	0.005	0.084	0.01
1	13X 32101A	4.91	0.0325	0.0194	(0.0004)	0.777	0.295	1.476	21.12	0.0122	0.0970	0.241	0.0070		0.0830	
1	BS 180B	4.65	0.022	0.017	0.0008	0.46	0.201	11.9	21.5	(0.007)	2.20	0.315	0.131	(0.005)	0.149	0.050
2	HRT FE2017-H	4.43	0.015	0.022	0.002	0.34	0.21	15.45	20.15		3.17	0.311	0.131			
1	IARM 17D	4.15	0.041	0.026	0.0018	0.416	0.412	11.83	21.06	0.0032	1.52	0.311	0.14	0.010	0.118	0.056
1	13X NSC7B	3.55	0.397	0.019	0.0098	0.88	0.220	7.50	23.9	0.204	0.435	0.429	0.82		0.167	0.041
1	DSZU C016	3.26	0.281	0.0192	0.0174	1.16	0.054	7.47	21.9	0.007	0.52	0.010		0.72	0.036	0.014
3	CZ SL-4A	2.85	1.38	0.038	0.017	2.28	0.75	2.04	26.3	0.12	0.92		1.11	0.8	0.54	0.35
1	SRM C1151a	2.37	0.034	0.017	0.038	0.29	0.385	7.25	22.59		0.79				0.040	
1	IMZ 154	2.18	0.076	0.040	0.16	0.89	0.33	9.86	17.71	(0.16)	2.58			1.00	0.073	
1	13X NSC5C	2.06	0.524		0.024	1.18	0.84	4.42	21.6	0.24	0.472	0.265	2.31		0.102	0.050
#	Number	Mn	C	P	S	Si	Cu	Ni	Cr	Al	Mo	N	Nb	Ti	V	W

Number	As	B	Ca	Co	Fe	Mg	O	Pb	Sb	Sn	Ta	Zr	Units	Comment
IARM 295A	.	0.002	.	0.021	.	.	(0.003)	.	.	0.004	.	(0.001)	Disc 31 mm Ø x 2 or 18 mm	
ECRM 294-1D	0.0037	.	(0.00026)	0.0288	.	.	.	(0.00012)	(0.00053)	(0.0014)	.	(0.0001)	Disc 40 mm Ø x 20 mm	
IARM 214A	.	(0.001)	.	0.021	.	.	0.0026	.	.	0.008	.	.	Disc 31 mm Ø x 2 mm	
VS RG20/1	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~30 mm	
VS RG22/1	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~30 mm	
BS 193	.	0.0007	0.0020	0.028	.	.	(0.004)	.	.	0.004	.	.	Disc 32 mm Ø x ~7 or 19+ mm	
CT ISO035A	.	.	.	0.037	65.91	.	(<0.0001)	.	.	0.003	.	<0.001	Disc 30-35 mm Ø x ~19 mm	
13X NSC3AB	.	.	.	0.019	.	.	.	.	.	(0.0035)	.	.	Disc ~40 mm Ø x ~15 mm	
IARM 296A	.	(0.001)	.	0.018	.	.	(0.003)	.	.	0.007	.	.	Disc 31 mm Ø x 2 mm	
BS 190	.	0.0005	.	0.044	.	.	0.0045	.	.	0.003	.	.	Disc 38 mm Ø x ~7 or 19+ mm	
CT ISO129A	.	.	.	0.102	62.62	.	.	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm	
IARM FeN40-18	.	.	.	0.122	.	.	.	.	.	0.0081	.	.	Disc ~38 mm Ø x ~3 or ~19 mm	
13X NSC6A	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 13 mm	
VS RG23/1	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~30 mm	
IARM 18D	.	(0.0011)	.	0.086	.	.	.	.	.	(0.007)	.	.	Disc 31 mm Ø x 2 mm	
BS 181B	(0.002)	(0.0008)	(0.001)	0.044	62.9	(0.0003)	0.0010	(0.0005)	(0.0007)	(0.004)	.	(0.0004)	Disc 38 mm Ø x ~7 or 19+ mm	
NM 303	.	.	.	0.063	.	.	.	.	.	.	.	.	Disc 35 mm Ø x 20 mm	
SRM 1297	.	.	.	0.127	.	.	.	.	.	.	.	.	Disc 32 mm Ø x 19 mm	
13X NSC1Q	.	.	.	0.015	.	.	.	.	.	0.0026	.	.	Disc ~40 mm Ø x ~15 mm	
VS RG21/1	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~30 mm	
BS 191	.	(0.0006)	.	0.11	.	.	0.002	.	.	(0.006)	0.002	.	Disc 38 mm Ø x ~7 or 19+ mm	
VS RG19/1	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~30 mm	
IARM FeN50-18	.	.	.	0.081	.	.	(0.006)	.	.	(0.007)	.	.	Disc 31 mm Ø x 2 or 18 mm	17025
13X NSA10A	.	0.0031	.	0.060	.	.	.	.	.	.	.	.	Disc ~38 mm Ø x ~15 mm	
BS 180A	.	(0.0023)	.	0.039	.	.	0.003	.	.	(0.002)	.	.	Disc 37 mm Ø x ~7 mm	last
IARM 292A	.	0.0011	.	0.031	.	.	0.0024	.	.	0.004	(0.006)	.	Disc 31 mm Ø x 2 mm	
13X 32101A	.	0.0014	.	0.0347	.	.	.	.	.	0.0035	(0.115)	.	Disc ~38 mm Ø x ~15 mm	
BS 180B	(0.004)	0.0011	0.0009	0.111	58.5	(0.0007)	0.0043	(0.002)	(0.0007)	0.0040	(0.003)	(0.0009)	Disc 38 mm Ø x ~7 or 19+ mm	
HRT FE2017-H	.	.	.	.	.	.	.	.	.	.	.	.	Block 30 mm x 30 mm x 10 mm	
IARM 17D	0.005	0.001	(0.002)	0.23	.	(0.0003)	0.003	(0.0002)	(0.001)	0.0044	(0.003)	(0.002)	Disc 31 mm Ø x 2 or 18 mm	
13X NSC7B	.	.	.	0.297	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
DSZU C016	.	.	0.0004	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 25 mm	
CZ SL-4A	.	0.0013	.	0.11	.	.	.	.	.	0.02	.	.	Disc ~39 mm Ø x 25 mm	
SRM C1151a	.	.	.	0.033	.	.	.	0.0039	.	.	.	.	Disc 32 mm Ø x 19 mm	
IMZ 154	.	.	.	0.105	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
13X NSC5C	.	.	.	0.093	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
Number	As	B	Ca	Co	Fe	Mg	O	Pb	Sb	Sn	Ta	Zr	Units	Comment

SULFUR AND PHOSPHORUS IN STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM, 2 = RM, and 3 = RM with no uncertainties

#	Number	S	P	C	Mn	Si	Cu	Ni	Co	Cr	Mo	N	Sn	V
1	IARM Fe416-22	0.37	0.019	0.114	0.83	0.39	0.064	0.230	0.019	12.98	0.027	0.036	0.0041	0.038
2	CT 416	0.36	0.018	0.088	0.52	0.63	0.004	0.24	0.019	13.15	0.065	0.020	0.005	0.025
1	IARM Fe303-18	0.35	0.033	0.046	1.55	0.47	0.61	8.12	0.140	17.2	0.42	0.069	(0.015)	0.072
1	BS 416	0.35	0.0237	0.116	0.64	0.232	0.154	0.371	0.0241	13.41	0.030	0.043	(0.005)	0.100
2	BS 150	0.33	0.020	0.048	1.71	0.43	0.042	0.19	0.024	18.61	1.97	0.029	(0.003)	0.054
1	SRM 1223	0.329	0.018	0.127	1.08	0.327	0.081	0.232	.	12.64	0.053	.	.	0.068
2	BS 90F	0.328	0.023	0.085	0.53	0.58	0.12	0.30	0.021	13.01	0.14	0.037	0.005	0.076
1	BS 303	0.326	0.028	0.044	1.80	0.415	0.627	8.17	0.071	17.23	0.410	0.023	0.0091	0.056
1	13X 30300A	0.312	0.0205	0.041	1.83	0.422	0.025	8.60	0.0255	17.62	0.334	0.034	.	0.091
2	CT 303	0.31	0.029	0.070	1.64	0.58	0.49	9.08	0.16	17.78	0.41	.	0.007	0.044
1	IARM 355A	0.31	0.0186	0.0274	0.47	0.435	0.083	0.427	0.047	17.81	0.337	0.0439	(0.005)	0.038
2	BS 154	0.302	0.027	0.030	0.40	1.26	0.063	0.25	0.019	17.58	0.31	0.039	(0.005)	0.046
1	13X 41600A	0.302	0.0253	0.111	0.627	0.442	0.160	0.331	0.0216	13.23	0.0499	0.0245	0.0066	0.0888
2	CZ SP-1B	0.30	0.039	0.050	1.67	0.505	0.47	8.32	0.161	17.42	0.40	0.063	0.013	0.060
2	13X 12549K	0.29	0.092	0.16	0.34	0.43	0.10	1.26	0.52	11.70	1.49	.	.	.
2	BS 153	0.280	0.018	0.026	0.41	0.53	0.052	0.140	0.017	17.38	0.30	0.021	0.002	0.045
2	BS 152	0.275	0.022	0.320	0.36	0.44	0.050	0.14	0.015	13.41	0.061	0.020	0.003	0.051
3	CZ SP-1A	0.26	0.024	0.047	1.87	0.33	0.52	8.6	0.095	17.7	0.42	.	0.01	0.058
1	IARM 352A	0.21	0.0182	0.341	1.13	0.357	0.148	0.269	(0.016)	13.11	0.38	0.029	0.0046	0.028
1	13X 43020A	0.189	0.0246	0.147	1.439	0.415	0.0687	0.517	0.0191	16.07	0.226	0.0212	.	0.0542
1	13X 12548N	0.189	0.023	0.175	0.510	0.193	0.264	1.10	0.388	12.70	1.42	0.102	0.0064	0.025
1	NCS HS41751A	0.16	0.035	0.075	1.70	0.71	0.26	8.07	0.13	17.41	0.33	0.077	.	0.068
2	13X 14775S	0.154	0.047	0.006	1.405	0.552	0.167	1.949	0.153	17.78	0.529	.	0.0007	0.0287
2	BS 155	0.145	0.014	1.00	0.35	0.40	0.035	0.13	0.019	16.64	0.46	0.032	(0.003)	0.10
1	13X 12536T	0.090	0.0449	0.146	0.374	0.546	0.0793	12.12	0.280	16.09	2.48	0.0084	0.0068	0.0513
1	IARM 253A	0.0089	0.140	0.041	1.50	0.50	0.223	9.17	0.088	17.90	0.348	0.0373	0.01	0.106
1	IARM 253B	0.011	0.13	0.051	1.61	0.46	0.44	9.11	0.145	17.64	0.59	0.031	(0.012)	0.092
1	13X 19004C	0.0135	0.074	0.075	2.01	0.35	0.0112	17.90	0.0501	22.77	3.43	.	(0.001)	0.041
1	13X 18003C	0.0245	0.0545	0.113	1.000	0.805	0.0433	10.08	0.100	19.56	0.401	0.090	.	0.0750
1	13X 17001C	0.0134	0.055	0.0769	1.543	0.215	0.0161	6.31	0.0979	14.83	0.0967	.	.	.

#	Number	S	P	C	Mn	Si	Cu	Ni	Co	Cr	Mo	N	Sn	V
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Number	Al	As	B	Nb	O	Pb	Sb	Se	Ta	Ti	W	Units	Comment
IARM Fe416-22	(0.0016)	(0.003)	.	(0.004)	(0.008)	.	.	.	.	0.0015	(0.004)	disc	
CT 416	.	.	.	.	.	<0.001	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm	Ag: 0.0002
IARM Fe303-18	.	0.007	(0.0012)	0.015	(0.006)	.	.	.	.	.	0.029	Disc 31 mm Ø x 2 or 18 mm	
BS 416	(0.002)	0.0039	(0.001)	(0.006)	0.0081	(0.0006)	(0.002)	.	(0.004)	0.0012	0.0034	Disc 38 mm Ø x ~7 or 19+ mm	17025
BS 150	0.002	.	.	0.003	0.012	.	.	.	.	.	0.01	Disc 35 mm Ø x ~7 or 19+ mm	
SRM 1223	.	.	.	.	.	.	.	.	.	.	.	Disc 32 mm Ø x 19 mm	
BS 90F	(0.006)	.	.	0.011	0.011	.	.	.	.	.	0.032	Disc 38 mm Ø x ~7 to 19 mm last	
BS 303	0.0019	.	0.0013	0.008	0.0058	.	(0.002)	.	.	0.017	0.023	Disc 44 mm Ø x ~7 or 19+ mm	17025
13X 30300A	.	.	0.0035	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
CT 303	.	.	.	.	.	0.001	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm	Ag: 0.0003
IARM 355A	0.0016	(0.004)	(0.0011)	0.0095	(0.010)	(0.0002)	.	(0.0001)	(0.001)	0.0020	(0.018)	Disc 31 mm Ø x 2 or 18 mm	
BS 154	(0.002)	.	.	0.005	0.008	.	.	.	.	.	(0.01)	Disc 38 mm Ø x ~7 or 19+ mm	
13X 41600A	(0.004)	.	.	0.0053	.	.	.	.	.	.	(0.003)	Disc ~41 mm Ø x ~15 mm	
CZ SP-1B	(0.003)	(0.003)	0.0007	(0.012)	.	.	.	.	.	(0.002)	0.032	Disc ~37 mm Ø x ~25 mm	
13X 12549K	.	.	.	0.23	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm	
BS 153	0.002	(0.004)	.	0.002	.	(0.001)	.	.	.	(0.004)	(0.002)	Disc 35 mm Ø x ~7 or 19+ mm	
BS 152	(0.002)	.	.	0.006	.	.	.	.	.	.	<0.01	Disc 41 mm Ø x ~7 or 19+ mm	
CZ SP-1A	0.004	0.006	0.0007	0.012	.	.	.	.	.	0.02	0.03	Disc ~39 mm Ø x 25 mm	
IARM 352A	(0.0025)	(0.005)	(0.0007)	(0.012)	(0.005)	.	.	(0.006)	(0.0007)	0.0015	(0.005)	Disc 31 mm Ø x 2 or 18 mm	
13X 43020A	0.0047	.	(0.0032)	0.0102	.	.	.	.	.	.	0.0108	Disc ~40 mm Ø x ~15 mm	
13X 12548N	(0.02)	(0.003)	.	0.49	.	(0.002)	0.019	.	.	0.0015	0.038	Disc ~40 mm Ø x ~15 mm	Batch N
NCS HS41751A	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 38 mm	
13X 14775S	0.0301	(0.002)	.	0.691	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
BS 155	(0.001)	.	.	0.002	0.0048	.	.	.	.	.	.	Disc 36 mm Ø x ~7 or 19+ mm	
13X 12536T	0.108	.	0.0214	0.060	.	.	.	.	0.104	0.444	.	Disc ~40 mm Ø x ~15 mm	
IARM 253A	0.003	.	0.0003	0.016	0.009	.	.	0.21	.	0.002	0.10	Disc 31 mm Ø x 2 mm	
IARM 253B	(0.004)	0.0052	0.0007	0.021	0.007	(0.0002)	(0.0018)	0.13	(0.003)	0.0027	(0.05)	Disc 31 mm Ø x 2 or 18 mm	
13X 19004C	0.030	.	(0.001)	0.152	.	.	.	.	0.011	.	.	Disc ~40 mm Ø x ~15 mm	
13X 18003C	0.0292	.	.	1.042	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
13X 17001C	0.0312	.	0.0085	0.546	.	.	.	.	0.0124	.	.	Disc ~40 mm Ø x ~15 mm	
Number	Al	As	B	Nb	O	Pb	Sb	Se	Ta	Ti	W	Units	Comment

CRM**NICKEL BINARIES**

analysis listed in mass %

~40 mm Ø x ~15 mm

Number	Ni	C	Mn	P	S	Si	Cu	Cr	Al	Co	N	Mg	Mo	Nb	Ti	W
14X FeNi50C	51.5	0.0245	0.057	0.0168	0.16	0.151	0.089	0.066	0.319	0.416	.	.	.	.	.	.
14X FeNi45C	45.88	0.0082	0.0222	0.026	0.0015	0.77	0.089	0.076	0.98	0.572	.	.	.	.	.	.
14X FeNi40C	40.1	0.012	0.031	0.0148	1.03	0.050	0.081	0.64	2.00	1.057	.	.	.	.	.	.
14X 94100A	41.00	0.0055	0.443	0.0051	0.0027	0.103	0.0628	0.0265	.	0.0208	0.0016	0.0021	0.0053	(0.01)	0.0011	0.0017
14X FeNi10A	10.12	0.095	0.272	0.015	0.027	0.061	0.029	0.070	0.025	.	0.0055	.	.	.	.	.
14X FeNi8A	8.10	0.097	0.330	0.015	0.029	0.097	0.030	0.250	0.029	.	0.0061	.	.	.	.	.
14X FeNi6A	6.08	0.100	0.330	0.0155	0.028	0.075	0.028	0.073	0.025	.	0.0055	.	.	.	.	.

STAINLESS STEEL WITH LOW NICKEL

CONTINUED FROM THE PREVIOUS PAGE

= Class, 1=CRM, 2=RM, and 3=RM with no uncertainties

Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Se	Ta	Zn	Zr	Unit	Comment
BS 156	.	.	.	.	.	0.005	0.0045	.	.	0.142	.	.	.	Disc 41 mm Ø x ~7 or 19+ mm	
BS 93F	0.0056	(0.0001)	0.0019	[80.2]	(0.0006)	0.0029	0.0031	(0.0002)	0.0016	.	.	.	(0.001)	Disc 38 mm Ø x ~7 or 19+ mm	17025
IARM 13D	(0.008)	0.0005	(0.0007)	.	.	0.0074	0.0031	.	(0.0027)	.	(0.004)	.	(0.0017)	Disc 31 mm Ø x 2 or 18 mm	
BS 93E	.	.	.	.	.	0.005	0.0040	.	.	.	.	.	.	Disc 41 mm Ø x ~7 mm	last
13X 44004B	.	.	.	.	.	0.008	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
IARM 353A	(0.004)	(0.0006)	(0.0003)	.	.	(0.011)	(0.005)	(0.002)	.	0.17	(0.004)	(0.005)	(0.002)	Disc 31 mm Ø x 2 or 18 mm	
NCS HS41752	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 38 mm	
ECRM 291-1D	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 36 to 41 mm Ø x 28 to 35 mm	
VS LG40/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~28 mm	
VS LG39/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~28 mm	
DSZU C21	0.005	(0.002)	(0.001)	.	.	.	.	0.0002	0.0011	.	.	0.0026	.	Disc 40 mm Ø x 20 mm	
DSZU C23	0.008	(0.004)	(0.002)	.	.	.	.	0.0008	0.006	.	.	0.0028	.	Disc 40 mm Ø x 20 mm	
DSZU C22	0.051	(0.03)	(0.002)	.	.	.	.	0.023	0.050	.	.	0.019	.	Disc 40 mm Ø x 20 mm	
DSZU C24	0.014	(0.007)	(0.003)	.	.	.	.	0.0017	0.010	.	.	0.0035	.	Disc 40 mm Ø x 20 mm	
HRT FE2018-H	.	(0.0004)	.	.	.	.	.	.	.	.	.	.	.	Disc 36 mm Ø x 20 mm	
13X 14122A	.	.	.	.	.	0.006	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
BS SS4952	0.002	(0.0004)	0.0019	.	.	0.004	0.005	.	.	.	.	.	.	Disc 38 mm Ø x ~7 or 19+ mm	
IARM 154C	(0.004)	0.0007	.	.	.	0.014	(0.0042)	.	(0.001)	(0.0003)	.	.	(0.0014)	Disc 31 mm Ø x 2 or 18 mm	
BS SS4951	0.002	(0.0002)	(0.0004)	.	.	0.006	0.0055	.	.	.	.	.	.	Disc 42 mm Ø x ~7, ~12, ~16, or 19+ mm	
BS 420	(0.003)	0.0002	0.0017	84.8	H:0.0001	(0.003)	0.0039	.	.	.	.	.	0.0019	Disc 38 mm Ø x ~7 or 19+ mm	17034
BS 98	(0.003)	(0.0002)	(0.0005)	.	.	0.003	0.0038	.	.	.	.	.	.	Disc 38 mm Ø x ~7 mm	last
IRSID 1825	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 30 mm	
DSZU C25	0.093	(0.03)	(0.004)	.	.	.	.	0.038	0.094	.	.	0.034	.	Disc 40 mm Ø x 20 mm	
DSZU C26	0.0077	(0.0003)	(0.0009)	.	.	.	.	0.0025	0.0019	.	.	0.0189	.	Disc 40 mm Ø x 20 mm	
DSZU C116	.	.	.	.	.	(0.01)	.	.	.	.	.	.	.	Disc 40 mm Ø x 20 mm	
13X 42027A	.	.	.	.	.	0.004	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
ECRM 272-1D	0.0116	0.0018	0.00090	.	(0.0002)	0.0028	.	.	0.0007	.	.	0.0031	.	Disc 38 mm Ø x 25 or 30 mm	
SS 469	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 35 mm Ø x 19 mm	
VS LG38/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~28 mm	
IMZ 168	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
IARM Fe422-22	0.0039	0.0006	0.0029	Rem	.	0.013	0.0073	(0.0017)	0.0009	.	.	.	(0.0017)	Disc 38 mm Ø x 3 or 19 mm	
BS 422	0.0041	(0.0002)	0.0031	84.5	(0.0009)	0.045	0.0030	(0.00005)	(0.0007)	.	(0.0001)	.	(0.001)	Disc 38 mm Ø x ~7, 19, or 50 mm	last 17025
SS 472	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 35 mm Ø x 19 mm	
13X 42200A	.	.	.	.	.	0.0203	.	.	.	.	.	.	.	Disc ~38 mm Ø x ~15 mm	
BS 97	.	.	.	.	.	0.007	.	.	.	.	.	.	.	Disc 35 mm Ø x ~7 or 19+ mm	
NCS HS41749	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 38 mm	
13X 42000A	0.0031	0.0004	0.0012	84.0	H:0.00010	(0.009)	0.0023	.	0.0008	.	.	.	0.0011	Disc 38 mm Ø x ~7 or 19+ mm	17034
13X 14923A	.	0.0013	.	.	.	.	.	.	.	.	.	.	.	Disc ~38 mm Ø x ~15 mm	
VS LG41/1	.	.	0.0044	.	.	0.005	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~45 mm Ø x ~28 mm	
Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Se	Ta	Zn	Zr	Unit	Comment
KUT H6/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x 18 mm	
NCS HS41748	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 38 mm Ø x 38 mm	
HRT FE2015-H	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30 mm Ø x 20 mm	
BS 183B	(0.005)	(0.0007)	(0.0003)	80.4	(0.0002)	(0.0075)	(0.0054)	(0.0003)	0.0009	.	(0.004)	.	(0.0009)	Disc 38 mm Ø x ~7 or 19+ mm	17034
HRT FE2010-H	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 35 mm Ø x 20 mm	
SS 70	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 44 mm Ø x 13 mm	last
IARM 20C	.	.	.	.	.	0.010	0.0068	.	.	.	.	.	.	Disc 31 mm Ø x 2 mm	
IMZ 167	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
BS 183C	0.0041	(0.0008)	0.0006	81.1	(0.0002)	0.0054	(0.005)	(0.0002)	0.0007	.	(0.003)	.	(0.0005)	Disc 38 mm Ø x ~7 or 19+ mm	17034
BS 183A	(0.002)	(0.0005)	0.0020	.	.	0.006	0.0065	.	(0.001)	.	.	.	.	Disc 38 mm Ø x ~10 to 19 mm	last
SS 473	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 35 mm Ø x 19 mm	
SS 470	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 35 mm Ø x 19 mm	
DSZU C115	.	.	.	.	.	0.015	.	.	.	.	.	.	.	Disc 40 mm Ø x 20 mm	
13X 41001A	.	.	0.0010	.	.	.	.	.	.	.	.	.	.	Disc ~41 mm Ø x ~15 mm	
NCS HS28747	0.0063	.	.	.	.	.	.	0.0001	.	.	.	.	.	Disc 38 mm Ø x 35 mm	
IARM Fe410-18	.	.	.	.	.	0.0021	(0.009)	.	.	.	.	.	.	Disc 31 mm Ø x 2 or 18 mm	
BS 410C	0.0029	(0.0001)	0.0022	[85.4]	(0.0003)	0.0056	0.0051	(0.0001)	(0.0002)	.	(0.001)	.	(0.0002)	Disc 38 mm Ø x ~7 or 19+ mm	17025
DSZU C119	.	.	.	.	.	(0.02)	.	.	.	.	.	.	.	Disc 40 mm Ø x 20 mm	
BS 0021	(0.004	(0.0002)	(0.0002)	.	.	(0.001)	(0.004)	.	.	.	.	.	.	Disc 40 mm Ø x ~7 or 19+ mm	ISO 25
KUT H5	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x 18 mm	
CT 410	.	.	.	.	.	0.001	.	<0.001	.	.	.	.	.	Disc 30-35 mm Ø x ~16 mm	Ag: 0.0002
IMZ 156	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
SS 471	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 35 mm Ø x 19 mm	
IMZ 158	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
BS 151	.	.	.	.	.	0.005	0.009	.	.	0.328	.	.	.	Disc 50 mm Ø x ~7 or 19+ mm	
13X 15023W	.	.	.	.	.	1.43	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
13X 14742A	.	.	.	.	0.0022	0.0202	.	.	.	.	.	0.0055	.	Disc ~40 mm Ø x ~15 mm	
13X 14762A	.	.	0.0025	.	0.0024	0.0277	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
CZ SL-1A	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc ~39 mm Ø x 25 mm	
IMZ 155	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
IMZ 161	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm	
DSZU C117	.	.	.	.	.	(0.02)	.	.	.	.	.	.	.	Disc 40 mm Ø x 20 mm	
IARM 11D	(0.005)	0.0006	(0.002)	.	(0.0003)	0.009	(0.004)	(0.0005)	.	(0.001)	(0.003)	(0.004)	(0.001)	Disc 31 mm Ø x 2 or 18 mm	
BS 91E	.	.	0.0008	.	.	(0.004)	.	.	.	.	.	.	.	Disc 41 mm Ø x ~7 mm	last
DSZU C103	.	.	.	.	.	(0.002)	.	.	.	.	.	.	(0.001)	Disc 38 mm Ø x 18 mm	
BS 430	0.0037	(0.0004)	(0.0003)	81.7	(0.0002)	(0.007)	0.0075	(0.0006)	(0.001)	.	(0.001)	.	.	Disc 44 mm Ø x ~7 or 19+ mm	17034
KUT H7/1	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 30-35 mm Ø x 18 mm	
IARM 14C	(0.003)	0.0005	(0.001)	.	(0.0005)	0.013	(0.006)	(0.0001)	(0.002)	(0.0001)	(0.002)	(0.0003)	(0.001)	Disc 31 mm Ø x 2 or 18 mm	
BS 94C	.	(0.0005)	0.0008	.	.	0.032	0.0061	.	.	.	.	.	.	Disc 44 mm Ø x ~7 or 19+ mm	
BS 0022	0.003	0.0007	.	.	(0.0005)	0.007	(0.002)	(0.0006)	(0.0004)	.	.	(0.002)	(0.003)	Disc 38 mm Ø x ~7 or 19+ mm	ISO 25
SRM C1296	.	.	.	.	.	0.20	.	.	.	.	.	.	.	Disc 32 mm Ø x 19 mm	
13X 40900A	.	.	.	.	.	0.032	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
13X 41008B	.	.	.	.	.	0.019	.	.	.	.	.	.	0.047	Disc ~40 mm Ø x ~15 mm	
13X 40800A	0.004	.	.	.	.	0.020	.	.	(0.002)	.	(0.027)	.	.	Disc ~40 mm Ø x ~15 mm	
13X 41008A	.	.	.	.	.	0.020	.	.	.	.	.	.	0.007	Disc ~40 mm Ø x ~15 mm	
SRM 1295	(0.006)	(0.0004)	.	.	.	(0.0005)	.	(0.0001)	(0.003)	(0.0001)	(0.001)	.	.	Disc 32 mm Ø x 19 mm	
DSZU C101	.	.	.	.	.	(0.011)	.	.	.	.	.	.	(0.003)	Disc 38 mm Ø x 18 mm	
13X 40930A	.	.	.	.	.	0.051	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm	
IMZ 300	(0.004)	(0.0005)	.	.	.	0.36	.	.	.	.	.	.	.	Disc 38 mm Ø x 20 mm	
NCS HS20743	.	.	.	.	.	.	.	.	.	.	.	.	.	Disc 35 mm Ø x 40 mm	Als: 0.021
IARM Fe409-20	0.0026	.	.	.	.	0.0041	.	.	0.0011	.	.	0.010	.	Disc 38 mm Ø x 2 or 19 mm	
Number	As	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Se	Ta	Zn	Zr	Unit	Comment

STAINLESS AND HIGH ALLOY STEEL, CHART 2 of 7

= Class, 1=CRM, 2=RM, and 3=RM with no uncertainties

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Sn	Ti	V	W
1	13X 17002E	0.112	0.801	0.0409	0.0250	0.486	0.1012	7.87	17.45	0.0702	0.204	0.061	0.487	.	.	0.0587	.
1	IRSID 1819	0.112	0.903	0.023	0.0112	0.616	0.064	7.10	17.31	0.117	0.110	0.0288	.	.	.	.	.
1	NCS HS28743	0.110	0.841	0.024	0.0082	0.780	0.089	18.02	23.71	0.102	0.115	0.057	0.016	0.0025	(0.003)	0.077	.
1	13X PH3N	0.110	0.39	0.0136	0.019	1.25	5.83	3.03	16.0	0.306	0.74	0.111	0.45	.	0.0193	0.246	.
1	IARM 291A	0.11	0.71	0.016	0.009	0.23	0.060	2.62	11.3	0.021	1.61	0.035	0.022	0.004	0.0011	0.29	(0.01)
1	IMZ 166A	0.108	1.99	0.019	0.005	2.51	0.025	21.93	25.53	0.030	(0.025)	0.077	.	(0.0035)	0.003	0.038	.
1	13X 12855N	0.107	0.918	0.0020	0.0063	0.863	0.340	11.79	16.29	0.155	2.96	0.0078	0.098	.	0.083	.	0.199
1	IMZ 303	0.105	1.23	0.038	0.011	0.74	0.018	8.26	19.56	0.017	.	0.0113	.	.	0.60	0.037	.
1	13X 14828A	0.104	1.52	0.0268	0.0067	2.19	0.409	11.25	19.3	0.143	0.301	0.037	0.016	0.0128	.	0.080	0.0167
1	VS LG81	0.104	0.29	0.0121	0.0014	0.231	0.088	22.5	11.51	.	1.22	.	0.004	.	2.93	0.040	0.012
1	VS LG77	0.101	0.34	0.0149	0.0021	0.44	0.116	4.32	15.67	.	0.020	0.054	0.109	.	.	0.022	0.006
1	IMZ 164	0.100	1.77	0.019	0.002	0.82	0.26	6.75	20.96	0.035	3.48	0.249	0.049	(0.003)	(0.003)	0.053	(0.025)
2	13X 17003A	0.10	0.85	0.037	0.035	0.78	0.08	11.9	11.89	0.07	0.27	.	0.34	.	.	.	.
1	13X 14219K	0.0997	0.482	0.0401	0.0456	1.504	0.138	12.66	21.46	0.0475	0.169	.	0.140	.	.	0.0188	4.17
1	VS LG73	0.098	1.26	0.019	0.0073	0.570	0.140	17.74	22.60	0.247	0.061	0.0319	.	.	0.0022	.	0.102
1	VS LG80	0.097	0.709	0.025	0.0029	2.15	0.166	19.38	24.7	.	0.086	0.064	.	.	0.015	0.032	0.029
1	KUT S20	0.097	1.50	0.011	0.025	1.80	0.44	18.2	2.06	.	3.15	.	1.22	.	(0.01)	.	.
1	BS CA304-4	0.096	0.783	0.0205	0.0070	0.887	0.143	8.77	18.26	(0.007)	0.0041	0.061	0.063	0.0024	0.0046	0.0686	0.0056
2	BS 253	0.094	0.58	0.018	<0.001	1.81	0.14	10.89	20.68	0.15	0.21	0.146	0.017	0.006	0.005	0.050	0.03
1	SS 462	0.092	0.74	0.010	0.018	0.46	.	12.53	12.37	.	.	.	.	.	.	.	.
1	IARM 234C	0.092	1.93	0.0090	(0.0027)	0.88	3.41	9.00	18.15	0.034	0.012	(0.01)	0.053	0.0017	0.026	0.055	(0.006)
1	SS 464/1	0.086	0.791	0.020	0.028	0.57	.	20.05	25.39	0.054	.	.	.	.	.	.	.
1	13X 17004B	0.084	0.497	0.018	0.039	1.23	0.0449	16.04	21.37	0.055	0.455	0.0086	0.179	.	0.034	.	.
1	NCS HS20742	0.083	1.02	0.015	0.0035	0.636	.	16.58	.	.	.	.	.	.	.	.	.
1	SS 467/1	0.082	0.788	0.018	0.019	0.52	.	9.21	18.09	.	.	.	0.99	.	.	.	.
1	IMZ 165	0.082	0.98	0.017	0.007	1.42	0.040	19.01	23.28	0.029	0.025	0.105	.	0.003	(0.002)	0.042	.
1	13X 12854M	0.081	1.84	0.038	0.028	0.89	0.205	11.38	15.64	0.344	2.00	0.0097	0.33	.	0.052	.	0.141
1	IARM Fe177PH-18	0.080	0.730	0.020	(0.0005)	0.51	0.36	7.11	17.08	0.048	0.350	0.0153	0.009	(0.006)	0.083	0.062	(0.011)
1	VS LG35/5	0.078	0.81	0.042	0.0094	1.01	0.066	8.23	18.44	.	0.39	.	.	.	0.73	0.041	0.107
2	DSZU C120	0.078	0.158	0.0138	0.0030	0.35	0.122	8.46	30.8	(0.03)	(0.03)	0.042	0.015	0.004	0.005	0.041	(0.01)
1	KUT S26	0.076	0.99	0.027	0.026	0.67	0.14	3.31	18.9	.	2.59	.	0.07	.	0.11	.	.
1	NCS HS41750	0.075	1.43	0.031	0.012	0.33	0.276	6.35	16.31	.	0.107	0.058	.	.	(0.001)	0.064	.
1	ECRM 270-1D	0.0742	0.540	0.0196	0.0007	1.517	0.1076	10.86	20.88	0.0685	0.2099	0.1417	.	(0.0035)	(0.0019)	0.0256	(0.0244)
1	BS 192	0.074	0.835	0.025	0.0005	0.387	0.412	7.11	16.44	0.104	0.430	0.0290	0.168	0.008	0.076	0.124	0.05
1	VS LG78	0.074	1.60	0.017	0.0017	0.58	0.053	35.4	14.71	.	0.061	0.0062	0.004	.	1.31	0.020	3.16
1	13X PH17700A	0.0732	0.496	0.0181	0.0008	0.551	0.146	6.98	16.88	0.0464	0.340	0.0192	0.0201	0.0055	0.051	0.0390	0.009
1	VS LG59	0.073	1.15	0.011	0.0083	0.63	0.083	35.1	15.81	.	0.094	.	0.106	.	1.12	0.273	3.08
1	NM 301	0.073	1.38	0.037	0.021	0.39	0.41	7.89	18.0	0.17	0.36	.	.	.	.	0.07	.
2	BS 83G	0.073	1.66	0.024	0.004	0.56	0.114	19.15	24.50	0.153	0.085	0.026	0.061	0.003	(0.003)	0.077	0.007

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Sn	Ti	V	W
1	13X 17002E	(0.030)	.	0.0012	.	.	.	.	.	.	.	(0.012)	.	~40 mm Ø x ~15 mm	.	.	.
1	IRSID 1819	.	0.0042	(0.0004)	.	.	.	.	.	.	.	.	.	47 mm x 47 mm x 30 mm	.	.	.
1	NCS HS28743	0.0056	.	.	.	.	.	.	.	0.0004	.	.	.	38 mm Ø x 35 mm	.	.	.
1	13X PH3N	0.050	.	0.0042	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm	.	.	.
1	IARM 291A	(0.004)	.	0.001	.	.	.	.	0.014	.	.	(0.001)	<0.005	31 mm Ø x 2 or 18 mm	.	.	.
1	IMZ 166A	0.036	(0.0026)	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm	.	.	.
1	13X 12855N	0.048	.	0.0098	.	.	.	.	.	.	0.093	0.122	.	~40 mm Ø x ~15 mm	.	.	.
1	IMZ 303	0.100	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 37 mm	.	.	.
1	13X 14828A	0.008	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm	.	.	.
1	VS LG81	0.409	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm	.	.	.
1	VS LG77	.	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm	.	.	.
1	IMZ 164	0.040	(0.005)	.	.	.	.	.	(0.002)	.	.	.	.	40 mm Ø x 40 mm	.	.	.
1	13X 17003A	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm	.	.	.
1	13X 14219K	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm	.	.	.
1	VS LG73	.	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm	.	.	.
1	VS LG80	0.025	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm	.	.	.
1	KUT S20	.	.	.	.	.	[71.5]	.	.	.	.	.	.	30-35 mm Ø x 18 mm	.	.	.
1	BS CA304-4	0.017	0.0063	0.0031	0.0075	.	70.7	0.000024	0.013	0.0008	(0.0002)	(0.002)	0.0036	~38 mm Ø x ~38mm	.	.	17034
1	BS 253	0.016	0.005	.	.	0.044	.	.	.	.	.	.	.	38 mm Ø x ~7 or 19+ mm	.	.	ISO 25
1	SS 462	.	0.007	.	.	.	.	.	.	0.0005	.	.	.	38 mm Ø x 19 mm	.	.	last
1	IARM 234C	0.035	(0.001)	0.0023	(0.0017)	.	.	(0.002)	(0.005)	(0.001)	.	(0.003)	(0.006)	31 mm Ø x 2 or 18 mm	.	.	.
1	SS 464/1	.	(0.003)	.	.	.	.	.	.	0.0004	.	.	.	38 mm Ø x 19 mm	.	.	.
1	13X 17004B	0.043	.	0.0066	.	.	.	.	.	.	.	0.057	.	~40 mm Ø x ~15 mm	.	.	.
1	NCS HS20742	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 40 mm	.	.	.
1	SS 467/1	.	0.004	.	.	.	.	.	.	0.004	.	.	0.0017	38 mm Ø x 19 mm	.	.	.
1	IMZ 165	0.038	(0.003)	.	.	.	.	.	(0.001)	.	.	.	.	40 mm Ø x 40 mm	.	.	.
1	13X 12854M	.	.	0.0101	.	.	.	.	.	0.068	0.020	0.0146	.	~40 mm Ø x ~15 mm	.	.	Bi: 0.0052
1	IARM Fe177PH-18	1.09	.	(0.0017)	.	.	.	.	.	.	.	.	.	31 mm Ø x 2 or 18 mm	.	.	.
1	VS LG35/5	0.087	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~25 mm	.	.	.
1	DSZU C120	(0.02)	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm	.	.	.
1	KUT S26	.	.	.	.	.	[76.1]	.	.	.	.	.	.	30-35 mm Ø x 18 mm	.	.	.
1	NCS HS41750	0.009	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 38 mm	.	.	.
1	ECRM 270-1D	(0.0023)	(0.0034)	.	.	0.0487	.	(0.0009)	.	.	(0.0007)	.	(0.0002)	38 mm Ø x 25 mm	.	.	La: 0.0154
1	BS 192	1.17	(0.005)	(0.0003)	0.0007	.	.	.	0.0014	.	.	(0.001)	.	38 mm Ø x ~7 or 19+ mm	.	.	ISO 25
1	VS LG78	0.15	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm	.	.	.
1	13X PH17700A	1.172	.	0.0033	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm	.	.	.
1	VS LG59	0.079	.	.	.	.	.	.	.	.	.	.	.	~47 mm Ø x ~30 mm	.	.	.
1	NM 301	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 20 mm	.	.	.
1	BS 83G	(0.004)	.	(0.001)	.	.	.	.	0.0064	.	.	.	.	38 mm Ø x ~7 or 19+ mm	.	.	.

Number	Al	As	B	Ca	Ce	Fe	Mg	O	Pb	Sb	Ta	Zr	Units	Comment
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STAINLESS AND HIGH ALLOY STEEL, CHART 3 of 7

= Class, 1=CRM, 2=RM, and 3=RM with no uncertainties

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Sn	Ti	V	W
1	NM 302	0.072	1.06	0.031	0.018	0.49	0.40	10.12	16.92	0.19	2.03	.	.	.	.	0.066	.
1	VS LG72	0.072	1.32	.	0.0050	0.334	0.306	12.4	16.36	0.090	2.07	0.0073	.	.	0.57	.	0.077
1	NCS HS41747	0.071	0.807	0.015	0.0006	0.36	0.038	32.27	20.72	0.050	0.297	.	.	.	0.49	.	.
1	IARM 316A	0.070	0.61	0.023	0.0011	1.50	0.19	10.81	21.07	0.118	0.250	0.16	(0.003)	0.006	(0.002)	0.042	0.022
1	13X 12853L	0.069	1.156	0.0053	0.0062	0.994	0.092	12.31	17.13	0.0415	2.718	0.0086	0.180	.	0.0455	.	0.089
1	VS LG63	0.068	0.356	0.010	0.0050	0.285	0.024	22.15	10.13	.	1.65	.	0.113	.	2.98	0.086	0.43
3	HH 5157A	0.067	0.95	0.012	0.003	0.43	0.33	29.31	21.48	.	.	.	.	.	0.55	.	.
1	KUT S25	0.067	1.90	0.045	0.015	1.49	0.07	13.8	15.6	.	1.77	.	0.07	.	0.46	.	.
1	BS 9841	0.067	1.69	0.024	0.024	0.54	0.356	19.55	24.30	0.116	0.57	0.064	0.070	0.006	(0.002)	0.070	0.06
1	SRM 1171	0.067	1.81	(0.019)	(0.013)	0.536	0.1205	11.18	17.50	(0.097)	0.167	.	.	.	0.346	.	(0.012)
1	IARM Fe309-18	0.066	1.61	0.029	(0.002)	0.30	0.430	12.2	22.42	0.248	0.357	.	0.021	0.012	.	0.073	0.063
1	SS 465/1	0.066	1.380	0.021	0.012	0.405	0.098	9.24	17.31	0.053	0.092	.	.	.	0.40	0.102	.
1	BS 192A	0.066	0.768	0.021	<0.002	0.300	0.334	7.01	16.44	0.114	0.28	0.029	0.208	0.008	0.083	0.077	0.048
1	IMZ 152A	0.065	1.38	0.0115	0.0072	0.55	0.065	8.47	17.10	(0.006)	0.010	0.083	(0.003)	(0.001)	(0.003)	0.013	(0.004)
1	IMZ 152	0.065	1.42	0.010	0.0025	0.52	0.061	9.48	18.04	.	0.017	.	.	.	.	0.030	.
1	VS LG71	0.064	1.33	0.032	0.0072	0.602	0.204	10.40	17.63	0.188	0.161	.	.	.	0.473	.	0.048
2	CT 304	0.063	0.78	0.026	0.023	0.56	0.34	9.60	18.57	0.20	0.33	.	0.043	0.017	.	0.037	.
1	13X 31008A	0.062	1.232	0.030	0.0040	0.510	0.157	19.35	24.45	0.078	0.337	0.063	0.012	.	.	0.079	0.166
1	BS 309	0.062	1.61	0.028	0.0011	0.24	0.26	12.16	22.40	0.200	0.193	0.073	0.0090	0.0089	0.0020	0.075	(0.031)
2	BS 82E	0.062	1.61	0.027	0.001	0.58	0.26	12.49	22.38	0.12	0.31	0.072	0.062	0.006	0.003	0.064	0.041
2	CT 316	0.061	1.64	0.029	0.023	0.69	0.25	12.61	17.60	0.14	2.45	.	.	0.006	.	0.051	.
1	BS 321D	0.060	1.76	0.024	0.022	0.27	0.358	9.09	17.42	0.096	0.274	0.0083	(0.009)	0.0091	0.55	0.054	(0.03)
1	VS LG36/5	0.060	1.97	0.017	0.027	0.70	0.085	12.6	14.95	.	0.197	.	.	.	0.39	0.156	.
2	13X NSB2D	0.06	0.62	.	.	0.66	.	11.1	18.2	.	0.21	0.095	.	.	.	.	.
1	13X PH2M	0.0598	1.184	0.0201	0.0419	0.502	4.03	3.56	16.80	0.0927	1.009	0.052	0.143	.	0.049	0.1028	.
1	BS 9842	0.059	1.50	0.025	0.0016	0.99	0.147	20.02	24.19	0.237	0.111	0.037	0.026	0.005	0.003	0.075	0.011
1	IMZ 163A	0.058	1.38	0.018	0.010	0.39	0.061	4.59	22.62	(0.020)	0.021	0.221	0.13	(0.003)	(0.002)	0.029	(0.016)
1	SRM 1172	0.056	1.7	0.025	0.01	0.59	0.10	11.3	17.4	0.12	0.22	.	0.65	.	.	.	.
1	VS LG82	0.056	0.308	0.023	0.0027	0.69	2.89	27.3	23.2	.	2.95	0.0076	0.037	.	0.85	0.050	0.116
2	BS 87F	0.055	1.64	0.024	0.025	0.67	0.28	10.12	17.30	0.17	0.29	0.037	0.57	0.004	0.004	0.13	0.050
2	BS 86F	0.054	1.30	0.021	0.0011	1.22	0.23	34.99	18.74	0.098	0.24	0.035	0.19	0.004	(0.006)	0.061	(0.03)
1	IARM 24B	0.053	0.82	0.009	0.0010	0.28	0.052	35.86	0.121	0.036	0.011	0.0017	<0.01	0.0018	0.002	<0.005	<0.04
1	DS2U C017	0.053	2.03	0.040	0.0298	0.61	0.36	10.85	19.21	.	2.36	0.018	.	.	0.32	0.084	0.20
1	SS 479	0.0529	0.680	0.0029	0.0030	0.553	0.0052	24.87	19.922	(0.002)	(0.003)	0.0057	0.625	.	0.0306	0.0052	.
1	IARM Fe304H-18	0.052	1.82	0.031	0.027	0.298	0.460	8.35	18.4	0.136	0.43	0.072	(0.010)	(0.014)	.	0.075	0.027
1	BS 347C	0.051	1.67	0.022	0.022	0.677	0.110	10.08	17.27	0.072	0.27	0.039	0.58	0.0034	(0.004)	0.097	0.013
2	BS 347B	0.051	1.57	0.028	0.026	0.51	0.15	9.16	17.24	0.05	0.38	0.056	0.71	0.006	(0.002)	0.04	(0.005)
2	BS 347A	0.051	1.50	0.026	0.020	0.54	0.31	9.20	17.44	0.054	0.326	0.044	0.79	0.007	(0.002)	0.10	(0.03)

Number	Al	As	B	Ca	Fe	Mg	O	Pb	Sb	Ta	Zr	Units	Comment
NM 302	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 20 mm	
VS LG72	0.089	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm	
NCS HS41747	0.299	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 30 mm	
IARM 316A	0.006	0.007	(0.0003)	0.0017	.	.	0.0052	(0.0001)	.	(0.003)	.	31 mm Ø x 2 mm	Ce: 0.064
13X 12853L	0.18	.	0.0018	.	.	.	.	.	.	0.034	.	~40 mm Ø x ~15 mm	
VS LG63	0.45	.	.	.	.	.	.	.	.	.	.	~47 mm Ø x ~30 mm	
HH 5157A	0.45	.	.	.	.	.	.	.	.	.	.	44 mm Ø x 12 mm	
KUT S25	.	.	.	.	[64.7]	.	.	.	.	.	.	30-35 mm Ø x 18 mm	
BS 9841	(<0.006)	(0.003)	0.0026	(0.0002)	.	.	(0.011)	(0.001)	(0.006)	.	(0.002)	44 mm Ø x ~7 or 19+ mm	ISO 25
SRM 1171	.	.	.	.	.	.	.	.	.	.	.	31 mm Ø x 19 mm	
IARM Fe309-18	.	0.0065	.	.	.	.	.	.	0.0018	.	.	~38 mm Ø x ~3 or ~19 mm	
SS 465/1	0.026	.	0.0006	.	.	.	.	(<0.001)	.	.	.	38 mm Ø x 19 mm	
BS 192A	0.98	(0.0035)	(0.0003)	(0.0006)	.	.	(0.0006)	.	.	.	.	38 mm Ø x ~7 or 19+ mm	ISO 25
IMZ 152A	(0.004)	(0.002)	0.0022	.	.	.	.	.	.	.	.	38 mm Ø x 20 mm	
IMZ 152	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm	
VS LG71	0.072	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm	
CT 304	.	.	.	.	.	.	.	<0.001	.	.	.	30-35 mm Ø x ~16 mm	Ag: 0.0007
13X 31008A	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm	
BS 309	(0.0025)	0.0048	(0.0004)	0.0010	62.6	(0.0002)	0.0027	<0.005	(0.0017)	<0.05	<0.005	38 mm Ø x ~7 or 19+ mm	17034
BS 82E	0.006	.	0.0024	0.0014	.	.	.	.	.	.	.	38 mm Ø x ~7 to 19 mm	
CT 316	.	.	.	.	.	.	.	0.001	.	.	.	30-35 mm Ø x ~19 mm	Ag: 0.0005
BS 321D	0.103	0.0040	0.0012	(0.0003)	69.8	0.0007	0.0009	(0.0003)	(0.001)	.	(0.001)	44 mm Ø x ~7 or 19+ mm	17034
VS LG36/5	0.080	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~25 mm	
13X NSB2D	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm	
13X PH2M	0.0419	.	0.0047	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm	
BS 9842	0.014	(0.002)	0.0025	0.0010	.	.	(0.0044)	.	.	.	.	38 mm Ø x ~7 or 19+ mm	ISO 25
IMZ 163A	0.018	(0.0035)	.	.	.	.	(0.001)	.	.	.	.	40 mm Ø x 40 mm	last
SRM 1172	.	.	.	.	.	.	.	.	.	<0.001	.	32 mm Ø x 19 mm	
VS LG82	0.076	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm	
BS 87F	0.004	0.005	(0.0006)	0.0007	.	.	0.005	.	.	.	.	41 mm Ø x ~7 or 19+ mm	
BS 86F	(0.007)	(0.003)	0.0026	(0.001)	.	.	(0.001)	.	.	.	.	44 mm Ø x ~7 or 19+ mm	
IARM 24B	0.002	<0.005	(0.001)	.	62.6	.	0.003	.	.	<0.005	<0.005	31 mm Ø x 2 mm	Se: 0.19
DS2U C017	0.28	.	.	0.0031	.	.	.	.	.	.	.	40 mm Ø x 25 mm	
SS 479	(0.013)	(0.002)	<0.0005	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm	
IARM Fe304H-18	(0.005)	0.0076	.	.	.	.	(0.008)	.	.	.	.	31 mm Ø x 2 or 18 mm	
BS 347C	(0.003)	(0.003)	0.0018	0.0011	69.1	(0.002)	0.0053	(0.0008)	(0.002)	(0.003)	0.0028	44 mm Ø x ~7 or 19+ mm	17034
BS 347B	0.002	(0.003)	0.0036	(0.0005)	.	.	0.005	.	.	(<0.004)	.	38 mm Ø x ~7 or 19+ mm	
BS 347A	(0.002)	(0.003)	(0.0004)	(0.0002)	.	.	0.0047	.	.	(<0.004)	.	38 mm Ø x 19+ mm	

STAINLESS AND HIGH ALLOY STEEL, CHART 5 of 7

= Class, 1=CRM, 2=RM, and 3=RM with no uncertainties

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Sn	Ti	V	W
1	13X PH13800A	0.0386	0.0332	0.0064	0.0030	0.081	0.0449	8.04	12.53	0.0220	2.10	0.0041	.	0.0051	0.0122	0.0188	.
1	IARM 26D	0.038	0.224	0.013	(0.0008)	(0.05)	0.047	24.6	14.29	0.040	1.23	0.0035	(0.007)	0.0039	2.17	0.223	0.036
1	13X 41500A	0.038	0.596	0.021	0.0101	0.402	0.129	3.52	13.00	0.099	0.504	0.0504	0.040	.	0.0012	0.091	.
1	IMZ 153A	0.037	1.49	0.021	0.0073	0.73	0.102	13.57	16.45	0.015	2.61	0.107	0.034	.	0.036	0.020	.
1	ECRM 292-1D	0.0367	1.744	0.0175	0.0055	0.402	0.0391	10.09	18.00	0.0255	0.0464	0.0640	0.571	.	.	.	.
3	HH 5196A	0.036	1.05	0.011	0.002	0.45	0.24	31.46	20.66	.	.	.	.	.	1.13	.	.
2	CT 630	0.036	0.39	0.018	0.013	0.63	3.25	4.20	15.94	0.11	0.11	0.028	0.36	0.007	.	0.022	.
2	CT 450	0.036	0.39	0.014	0.006	0.29	1.49	6.36	15.20	0.16	0.80	0.028	0.67	0.008	.	0.043	.
1	SRM C2400	0.036	0.71	0.013	0.003	0.61	2.63	4.07	17.06	0.10	0.23	.	0.15	.	.	0.092	.
2	HRT FE2009-H	0.035	0.78	0.034	0.003	0.35	0.08	3.89	12.83	.	0.42	(0.0339)	.	.	.	0.043	0.058
2	BS 95A	0.035	0.58	0.026	0.004	0.46	1.50	6.42	14.72	0.081	0.73	0.0255	0.55	0.008	(0.003)	0.052	.
2	BS 9621	0.035	0.31	0.017	0.0011	0.468	3.42	4.61	14.93	0.029	0.063	0.013	0.27	0.003	(0.001)	0.096	.
2	BS 184A	0.035	0.06	0.007	0.001	0.080	0.041	8.34	12.66	0.036	2.20	0.0045	(0.006)	(0.002)	0.051	0.014	.
1	SS 462/1	0.0345	0.722	0.0053	0.0041	0.463	0.0112	12.85	11.888	.	0.0304	.	.	.	.	.	.
2	CT 20 Cb-3	0.034	0.19	0.017	0.003	0.38	3.28	33.55	19.63	0.035	2.25	.	0.86	0.003	.	0.053	.
1	ECRM 273-1D	0.0336	0.785	0.0131	0.0004	0.378	3.046	4.85	14.747	0.0391	0.2462	0.0444	0.221	0.0021	.	0.0512	.
1	13X 31400A	0.033	1.60	0.026	0.0006	2.23	0.210	18.76	24.38	0.129	0.240	0.0288	0.018	.	.	0.092	0.015
1	BS 17-4PHC	0.033	0.81	0.022	0.027	0.399	3.23	4.24	15.40	0.077	0.45	0.027	0.258	0.0100	(0.001)	0.090	0.121
2	BS 185A	0.033	0.49	0.022	0.002	0.38	3.41	4.43	14.46	0.026	0.30	0.027	0.32	0.007	(0.001)	0.048	(0.014)
1	13X PH4P	0.033	0.69	0.021	0.019	0.64	5.53	4.07	15.5	0.50	0.255	0.082	0.355	.	0.075	0.55	.
2	BS 9622	0.032	0.63	0.019	0.004	0.42	3.34	4.34	14.34	0.040	0.27	0.028	0.33	0.006	(0.001)	0.074	(0.020)
1	IARM 15C	0.032	0.760	0.019	0.0018	0.26	1.54	6.35	14.39	0.024	0.722	0.0148	0.63	0.009	(0.002)	0.041	.
1	IARM 21D	0.032	0.052	0.008	(0.0014)	0.039	0.017	8.29	12.69	0.078	2.23	0.0037	(0.005)	.	0.016	0.017	.
1	BS 9812	0.031	0.485	0.018	0.004	0.43	1.65	6.61	14.82	0.110	0.76	0.0195	0.645	0.004	(0.005)	0.088	0.025
1	13X 32180A	0.031	2.11	0.007	0.0093	0.485	0.49	10.16	18.92	0.040	0.245	0.0067	(0.0021)	0.0116	0.81	0.026	.
1	13X NSA9B	0.030	1.52	0.0237	0.0009	0.290	0.154	5.75	22.39	0.033	3.27	0.184	0.021	.	.	0.060	.
1	BS 450	0.029	0.596	0.016	0.0013	0.323	1.51	6.24	14.4	0.028	0.671	0.022	0.59	0.0046	<0.008	0.051	0.016
1	13X 30403B	0.0277	1.820	0.0321	0.0266	0.288	0.497	8.13	18.30	0.178	0.313	0.083	0.0201	0.0139	0.0013	0.0700	0.035
2	HRT FE2014-H	0.027	1.91	0.023	(0.002)	0.39	0.25	9.92	17.16	.	0.41	(0.018)	.	.	0.31	.	.
1	BS 9811	0.027	0.380	0.016	0.0010	0.36	1.63	6.55	14.87	0.055	0.744	0.0196	0.62	0.004	(0.003)	0.086	0.013
1	VS LG75	0.027	0.728	0.0046	0.0026	0.298	0.029	24.5	14.80	0.190	0.052	0.0044	.	.	1.76	.	4.14
1	SRM 1155a	0.0260	1.593	0.0271	(0.0020)	0.521	0.2431	12.471	17.803	0.225	2.188	(0.0428)	0.0082	(0.0069)	0.0039	0.0725	0.0809
3	HH 5300A	0.026	0.86	0.013	0.003	0.35	0.28	33.56	18.18	.	.	.	.	.	0.54	.	.
1	BS 2507	0.026	0.79	0.023	(0.0005)	0.32	0.222	6.94	25.3	0.040	3.75	0.273	(0.011)	0.0050	0.0028	0.064	0.074
1	13X 32900A	0.0251	1.478	0.0276	0.0269	0.556	0.354	5.57	24.91	0.0724	1.310	0.097	.	.	0.0139	0.0938	0.017
1	SRM 1158	0.025	0.468	0.004	0.005	0.194	0.039	36.03	0.062	0.008	0.010	.	.	.	.	0.001	.
1	BS 317L	0.025	1.17	0.029	0.0017	0.67	0.23	13.51	18.2	0.14	3.07	0.055	0.031	0.0049	0.0034	0.091	0.017
1	IARM 317A	0.025	1.26	0.028	0.0007	0.39	0.21	4.19	22.5	0.064	0.249	0.123	(0.004)	0.008	(0.002)	0.061	0.015
2	TL 2001D	0.0244	0.679	0.022	0.0006	0.27	0.612	7.5	25.58	0.046	3.49	0.279	0.024	.	.	0.079	0.57

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Sn	Ti	V	W
Number	Al	As	B	Ca	Fe	Mg	O	Pb	Sb	Ta	Zr	Units			Comment		
13X PH13800A	1.075	.	.	.	.	.	.	.	.	.	.	.	~38 mm	Ø x	~15 mm		
IARM 26D	0.29	.	0.0063	.	.	.	.	.	.	.	.	.	31 mm	Ø x	2 or 18 mm		
13X 41500A	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm	Ø x	~15 mm		
IMZ 153A	0.036	.	.	.	.	.	.	.	.	.	.	.	38 mm	Ø x	20 mm		
ECRM 292-1D	(0.002)	(0.008)	.	(0.0006)	.	.	.	.	.	(0.001)	.	.	38 mm	Ø x	25 or 30 mm		
HH 5196A	0.31	.	.	.	.	.	.	.	.	.	.	.	44 mm	Ø x	12 mm		
CT 630	.	.	0.0018	.	.	.	.	0.001	.	.	.	.	30-35 mm	Ø x	~16 mm	Ag: 0.0004	
CT 450	.	.	.	.	.	.	.	0.001	.	.	.	.	30-35 mm	Ø x	~15-19 mm	Ag: 0.0013	
SRM C2400	.	.	.	.	.	.	.	.	.	.	.	.	32 mm	Ø x	19 mm		
HRT FE2009-H	.	.	.	(0.001)	.	.	.	.	.	.	.	.	40 mm	Ø x	40 mm		
BS 95A	0.002	.	0.0010	0.0008	.	.	.	.	.	.	.	.	38 mm	Ø x	~7 or 19+ mm		
BS 9621	0.003	.	0.0004 (0.0001)	.	.	.	.	.	.	(0.002)	.	.	38 mm	Ø x	~7 or 19+ mm		
BS 184A	1.00	.	(0.0004) (0.0003)	.	.	.	(0.0003)	.	.	.	.	.	38 mm	Ø x	~7 or 19+ mm		
SS 462/1	.	.	.	.	.	.	.	.	.	.	.	.	38 mm	Ø x	19 mm		
CT 20 Cb-3	.	.	0.0023	.	.	.	.	0.002	.	.	.	.	30-35 mm	Ø x	~19 mm	Ag: 0.0019	
ECRM 273-1D	.	0.0030	.	.	.	.	.	.	.	.	.	.	40 mm	Ø x	20 mm		
13X 31400A	0.022	.	.	0.0024	.	.	.	.	.	.	.	.	~40 mm	Ø x	~15 mm		
BS 17-4PHC	0.0023	0.0043	0.0026	0.0007	74.8	.	0.010 (0.0001)	.	.	.	(0.002)	(0.002)	44 mm	Ø x	~7 or 19+ mm	17034	
BS 185A	0.002	.	0.0017 (0.0002)	.	.	.	(0.0021)	.	.	(0.002)	.	.	38 mm	Ø x	~7 or 19+ mm		
13X PH4P	0.029	.	0.0031	.	.	.	.	.	.	.	.	.	~40 mm	Ø x	~15 mm		
BS 9622	0.002	.	0.0004	.	.	.	.	.	.	.	.	.	38 mm	Ø x	~7 or 19+ mm		
IARM 15C	(0.005)	0.0044	(0.0006) (0.0004)	.	.	.	(0.003) (0.003) (0.003)	(0.004)	(0.003)	.	.	.	31 mm	Ø x	2 or 18 mm		
IARM 21D	1.03	.	.	.	.	.	.	.	.	.	.	.	31 mm	Ø x	2 or 18 mm		
BS 9812	(0.002)	(0.005)	(0.0003) 0.0012	.	.	.	(0.007)	.	.	.	.	.	50 mm	Ø x	~7 or 19+ mm	ISO 25	
13X 32180A	0.043	(0.003)	(0.0011)	.	.	.	.	.	(0.0011)	.	.	.	~40 mm	Ø x	~ 15 mm		
13X NSA9B	.	.	0.0018	.	.	.	.	.	.	.	.	.	~40 mm	Ø x	~15 mm		
BS 450	(0.003)	0.0033	(0.0003) <0.005	<0.005	75.5	.	0.0027 <0.005	0.0010	.	.	.	(0.004)	44 mm	Ø x	~7 or 19+ mm	17034	
13X 30403B	0.0056	.	.	0.0027	.	.	.	.	.	.	.	.	~40 mm	Ø x	~15 mm		
HRT FE2014-H	.	.	.	.	.	.	.	.	.	.	.	.	35mm	Ø x	20 mm		
BS 9811	(0.003)	(0.003)	(0.0003) 0.0014	.	.	.	(0.0060)	.	.	.	.	.	38 mm	Ø x	~7 or 19+ mm	ISO 25	
VS LG75	0.113	.	.	.	.	.	.	.	.	.	.	.	~45 mm	Ø x	~28 mm		
SRM 1155a	<0.01	(0.007)	(0.002)	.	(64.71)	.	(0.003) <0.005	.	.	<0.0001	<0.003	.	32 mm	Ø x	19 mm		
HH 5300A	0.45	.	.	.	.	.	.	.	.	.	.	.	41 mm	Ø x	12 mm		
BS 2507	(0.004)	0.0046	0.0021 (0.0003)	.	62.3	(0.0002)	0.0038 (0.0002)	0.0008	.	.	<0.01	.	38 mm	Ø x	~7 or 19+ mm	17034	
13X 32900A	0.007	.	0.0028	0.0033	.	.	.	.	.	.	.	.	~40 mm	Ø x	~15 mm		
SRM 1158	.	.	.	.	.	.	.	.	.	.	.	.	32 mm	Ø x	19 mm		
BS 317L	0.0044	(0.003)	0.0012	0.0017	[62.8]	(0.0004)	(0.006)	(0.0002) (0.002)	(0.002)	(0.002)	(0.004)	.	32 mm	Ø x	~7 or 19+ mm	17034	
IARM 317A	0.005	(0.006)	0.0019 (0.0003)	.	.	.	0.0032 (0.001)	.	.	(0.004)	.	.	31 mm	Ø x	2 or 18 mm		
TL 2001D	.	.	.	.	.	.	.	.	.	.	.	.	40 mm	Ø x	20 mm		
Number	Al	As	B	Ca	Fe	Mg	O	Pb	Sb	Ta	Zr	Units			Comment		

STAINLESS AND HIGH ALLOY STEEL, CHART 6 of 7

= Class, 1=CRM, 2=RM, and 3=RM with no uncertainties

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Sn	Ti	V	W
1	IARM 162D	0.0240	1.82	0.0296	0.0271	0.570	0.52	8.15	18.31	0.074	0.573	0.097	0.0090	0.0102	0.013	0.063	0.028
1	BS 304C	0.024	1.37	0.034	0.027	0.302	0.524	8.53	18.2	0.229	0.419	0.077	(0.009)	0.0119	(0.0024)	0.083	0.043
1	NCS HS28764	0.024	0.985	0.032	0.024	0.454	0.203	11.68	18.78	0.105	3.23	.	0.145	.	.	0.059	0.046
2	PV 111/1	0.0226	1.538	0.019	0.026	0.485	0.105	8.57	18.49	.	0.173	.	.	.	.	.	.
1	IARM 153C	0.0225	1.60	0.0289	0.0288	0.349	0.442	11.10	18.22	0.251	3.00	0.086	0.015	0.010	0.004	0.058	0.043
1	ECRM 297-1D	0.0223	0.897	0.0137	0.0101	0.344	0.204	12.33	18.37	0.0413	0.290	0.0152	(0.0089)	.	0.0072	0.0535	(0.0057)
2	BS 187A	0.022	0.52	0.017	0.0025	0.26	3.10	33.06	19.75	0.32	2.06	0.0157	0.57	0.003	(0.002)	0.10	(0.02)
1	BS 186B	0.022	0.288	(0.0027)	0.0016	0.254	0.057	36.1	0.11	0.041	0.025	0.0033	(0.002)	0.0025	0.0028	(0.002)	(0.007)
1	BS 316G	0.021	1.61	0.032	0.0213	0.286	0.39	10.54	16.43	0.30	2.11	0.038	0.063	0.0100	0.0018	0.080	0.130
1	13X 17005E	0.0217	0.209	0.0040	0.0431	1.739	0.120	20.06	24.65	0.0265	0.599	0.0097	0.101	.	0.0073	.	.
2	HRT FE2004-H	0.021	1.83	0.021	0.004	0.47	1.33	24.25	19.08	0.046	4.17	.	0.046	.	0.005	0.042	.
2	CT ISO139A	0.021	1.00	0.001	0.0005	0.015	<0.001	41.69	0.004	0.066	<0.001	.	.	.	0.014	0.024	.
1	BS CD4MCU-A	0.021	0.38	(0.008)	0.0072	0.31	2.92	5.18	24.6	(0.005)	1.92	0.0112	(0.009)	0.0024	0.021	(0.006)	(0.009)
1	NCS HS28742	0.021	0.940	0.034	0.0028	0.414	0.043	8.11	18.2	0.216	0.025	0.059	.	(0.0001)	0.006	0.089	.
1	NCS HS28746	0.021	1.87	0.031	0.0009	0.510	0.340	8.24	17.19	0.191	0.069	0.011	.	0.0065	0.184	0.096	.
1	BS 2205A	0.021	1.48	0.029	0.0006	0.53	0.300	5.26	22.73	0.071	3.17	0.157	0.010	0.0058	(0.002)	0.083	(0.02)
1	BS 9941	0.021	1.78	0.027	0.024	0.33	0.424	13.68	18.48	0.178	3.24	0.036	0.015	0.007	(0.002)	0.062	0.068
1	BS 9942	0.021	1.84	0.025	0.006	0.49	0.305	13.55	18.21	0.086	3.30	0.071	0.005	0.006	(0.002)	0.072	0.032
1	IRSID 1820	0.021	1.61	(0.021)	0.0079	0.428	0.045	9.07	19.51	0.151	0.115	0.064	.	.	.	.	.
1	13X NSA8B	0.0206	0.596	0.0248	0.0007	0.285	0.589	7.48	25.49	0.0448	3.49	0.232	0.026	.	.	0.0583	0.599
1	13X NSA13A	0.020	0.761	0.0249	0.0005	0.257	0.156	6.73	25.27	0.032	3.73	0.269	0.028	0.0046	.	0.0712	0.035
2	CT ISO141A	0.0199	0.31	0.001	<0.001	0.28	<0.001	47.16	<0.001	0.030	<0.001	<0.001	.	.	0.014	0.024	.
2	TL 2003D	0.0193	1.068	0.0274	0.0169	0.5020	0.2773	9.231	18.25	0.1270	0.2871	0.0556	0.0150	.	.	0.0711	0.0150
1	BS 254	0.019	0.95	0.026	0.0009	0.312	0.045	18.47	20.2	0.08	6.07	0.210	(0.03)	0.0063	0.0019	0.062	(0.02)
1	IARM Fe2507-21	0.019	0.85	0.024	0.0005	0.36	0.125	7.12	25.2	0.039	3.76	0.27	0.022	0.0034	0.0019	0.067	0.026
1	SS 463/1	0.019	1.400	0.025	0.019	0.270	0.276	10.20	18.46	0.116	0.265	0.063	.	.	.	.	.
1	IARM 212D	0.019	1.21	0.024	0.0007	0.34	0.125	5.53	22.60	0.049	3.27	0.182	(0.009)	(0.003)	(0.002)	0.063	0.014
1	13X FV520BA	0.0181	0.655	0.0221	0.0016	0.342	1.462	5.29	13.73	0.030	1.334	0.0197	0.301	.	.	0.080	0.020
2	CT ISO136A	0.018	0.44	0.001	<0.001	0.198	<0.001	44.92	0.002	0.009	<0.001	.	.	.	.	.	.
1	NCS HS28745	0.018	1.17	0.042	0.0057	0.317	0.334	10.34	16.61	0.185	2.05	0.070	.	0.0073	(0.002)	0.070	.
1	IARM Fe415-21	0.018	0.640	0.028	0.013	0.42	0.198	3.55	11.64	0.065	0.537	0.073	0.0049	0.0104	0.0013	0.086	0.042
2	BS 17-4PHA	0.018	0.85	0.023	0.022	0.40	3.30	4.69	15.40	0.072	0.34	0.022	0.204	.	.	0.043	.
1	IARM Fe2205-18	0.018	1.18	0.023	(0.0013)	0.46	0.208	5.57	22.6	0.104	3.20	0.17	0.011	(0.006)	(0.003)	0.063	0.024
2	HRT FE2000-H	0.018	2.02	0.022	(0.003)	0.36	0.15	5.98	22.15	0.048	3.27	0.20	0.010	.	0.005	0.042	0.063
1	IARM 327A	0.018	0.54	0.018	0.0010	0.43	0.082	3.83	12.73	0.019	0.53	0.0157	0.008	0.006	0.0026	0.036	.
2	DSZU C118	0.018	1.23	0.0057	0.0098	0.142	0.344	3.45	19.69	0.093	0.337	0.028	0.116	0.026	0.117	0.109	.
1	SS 476	0.0171	1.755	0.0302	0.0234	0.323	0.302	10.17	16.88	0.162	2.04	0.0794	0.0107	0.0059	.	0.066	0.041
1	IARM Fe254SMO-21	0.017	0.892	0.022	0.0010	0.301	0.77	18.1	19.7	0.118	6.09	0.200	(0.0083)	0.0041	0.004	0.052	0.041

Number	Al	As	B	Ca	Fe	Mg	O	Pb	Sb	Ta	Zr	Units	Comment
IARM 162D	(0.0026)	0.0072	0.0027	(0.003)	.	(0.0001)	0.005	.	(0.0019)	(0.005)	.	31 mm Ø x 2 mm	last
BS 304C	0.0022	0.0047	0.0005	(0.0002)	70.1	H:0.0004	0.0050	.	<0.05 Zn:	<0.005	(0.002)	38 mm Ø x ~7 or 19+ mm	17034
NCS HS28764	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 30 mm	Bi: 0.013
PV 111/1	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 25 mm	.
IARM 153C	(0.003)	0.0061	0.0009	(0.0026)	.	.	0.006	(0.001)	(0.002)	(0.006)	(0.004)	31 mm Ø x 2 or 18 mm	.
ECRM 297-1D	0.0195	0.0040	1.146	(0.0002)	.	.	.	.	.	.	(0.0002)	40 mm Ø x 30 mm	.
BS 187A	(0.009)	.	0.0022	.	.	.	0.0029	.	.	<0.002	.	41 mm Ø x ~7 mm	last
BS 186B	0.0080	0.0022	(0.0006)	(0.0007)	63.0	(0.0004)	0.0011	(0.003)	(0.0007)	(0.005)	0.0020	43 mm Ø x ~7 or 19+ mm	17034
BS 316G	(0.003)	(0.006)	0.0023	0.0008	67.9	H:0.0004	0.0034	0.0006	0.0018	.	(0.002)	38 mm Ø x ~7 or 19+ mm	17034
13X 17005E	0.049	.	0.0030	.	.	.	.	.	.	0.015	.	~40 mm Ø x ~15 mm	.
HRT FE2004-H	0.005	.	0.0021	.	.	.	.	.	.	.	.	35 mm Ø x 20 mm	.
CT ISO139A	.	.	.	.	57.10	.	.	.	.	.	.	30-35 mm Ø x ~16 mm	.
BS CD4MCU-A	(0.009)	0.0022	(0.0008)	(0.001)	64.5	(0.0003)	0.0061	(0.002)	(0.0007)	.	(0.002)	44 mm Ø x 19+ mm	17034
NCS HS28742	.	0.0025	.	.	.	.	.	0.0001	.	.	.	38 mm Ø x 35 mm	.
NCS HS28746	0.086	0.0032	.	.	.	.	.	0.0002	.	.	.	38 mm Ø x 35 mm	.
BS 2205A	(0.004)	0.0072	0.0022	0.0007	66.2	(0.0001)	0.0046	.	.	.	(0.003)	38 mm Ø x ~7 or 19+ mm	17034
BS 9941	0.004	(0.010)	0.0025	(0.0003)	.	.	(0.0058)	.	.	.	.	38 mm Ø x ~7 or 19+ mm	ISO 25
BS 9942	0.004	(0.004)	0.0014	0.0014	.	.	(0.0023)	.	.	.	.	44 mm Ø x ~7 or 19+ mm	ISO 25
IRSID 1820	.	.	(0.0013)	.	.	.	.	.	.	.	.	47 mm x 47 mm x 30 mm	.
13X NSA8B	.	.	0.0017	0.0011	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm	.
13X NSA13A	(0.007)	.	0.0030	.	.	.	(0.0008)	.	.	.	.	~40 mm Ø x ~15 mm	.
CT ISO141A	0.001	.	.	.	52.12	0.0002	.	.	.	.	.	30-35 mm Ø x ~16 mm	.
TL 2003D	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm	.
BS 254	<0.01	(0.006)	0.0018	(0.0003)	52.9	(0.0002)	0.0038	<0.01	0.0014	<0.01	0.0026	38 mm Ø x ~7 or 19+ mm	17034
IARM Fe2507-21	(0.0051)	0.004	0.0024	.	Rem	.	(0.0048)	.	0.0015	(0.0013)	0.0013	38 mm Ø x 3 or 19 mm	.
SS 463/1	.	.	0.0022	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm	.
IARM 212D	(0.005)	(0.01)	0.001	(0.001)	.	.	0.0034	(0.001)	.	(0.003)	(0.004)	31 mm Ø x 2 mm	last
13X FV520BA	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm	.
CT ISO136A	.	.	.	.	54.27	.	.	.	.	.	.	30-35 mm Ø x ~16 mm	.
NCS HS28745	.	0.0055	.	.	.	.	0.0001	.	.	.	.	38 mm Ø x 35 mm	.
IARM Fe415-21	0.0018	0.0036	0.0008	.	Rem	.	0.0075	.	0.0019	.	(0.0013)	38 mm Ø x 3 or 19 mm	last
BS 17-4PHA	.	.	0.0016	.	.	.	.	.	.	(0.002)	.	38 mm Ø x ~7 mm	.
IARM Fe2205-18	(0.007)	.	.	.	.	.	(0.004)	.	.	.	.	31 mm Ø x 2 or 18 mm	.
HRT FE2000-H	.	.	0.0013	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm	.
IARM 327A	(0.003)	(0.004)	(0.001)	.	.	(0.0003)	0.0047	.	.	(0.004)	(0.002)	31 mm Ø x 2 or 18 mm	.
DSZU C118	(0.004)	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm	.
SS 476	.	0.0053	.	0.0028	.	.	.	.	.	.	.	44 mm Ø x 19 mm	.
IARM Fe254SMO-21	0.022	0.0044	0.0009	0.0024	53.7	.	0.0025	.	0.0017	(0.0046)	(0.0017)	38 mm Ø x 3 or 19 mm	.

CRM

CAST IRON SETS

AVAILABLE IN SETS ONLY, as grouped

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Sn	Ti	V	Ce	La	Mg	N
30 mm Ø x 28 mm																	
NCS HS11712a-6	4.02	1.41	0.021	0.026	0.163	1.83	1.89	0.112	0.019	0.726	0.057	0.238	0.509	<0.0001	<0.0001	0.104	0.013
NCS HS11712a-7	3.94	1.38	0.085	0.0048	0.918	1.10	1.37	1.05	0.214	0.168	0.134	0.114	0.390	<0.0001	<0.0001	0.056	0.0063
NCS HS11712a-5	3.52	0.311	0.420	0.019	1.17	0.389	1.03	0.766	.	0.629	0.013	0.161	0.324	<0.0001	<0.0001	0.021	0.0047
NCS HS11712a-4	3.16	0.462	0.396	0.017	1.96	0.921	0.778	1.40	0.0073	0.428	0.024	0.065	0.166	<0.0001	<0.0001	0.025	0.0073
NCS HS11712a-2	2.22	0.301	0.043	0.058	2.44	0.458	0.341	2.13	0.060	0.087	0.044	0.065	0.055	0.0010	0.010	0.0085	0.024
NCS HS11712a-3	2.55	0.878	0.071	0.045	1.50	0.641	0.519	0.417	0.034	0.354	0.021	0.027	0.085	0.027	0.0061	0.024	0.024
NCS HS11712a-1	1.75	0.080	0.580	0.119	3.40	0.025	0.030	2.48	0.248	0.031	0.0031	0.038	0.021	<0.0001	<0.0001	0.0006	0.015
30 mm Ø x 30 mm																	
NCS HS19701-7	4.13	2.06	0.306	0.111	1.85	.	0.026	0.157	.	.	0.043	0.399	0.821	.	.	.	.
NCS HS19701-6	3.93	1.46	0.168	0.124	0.99	.	0.094	0.387	.	(0.112)	0.0018	0.105	0.506	.	.	.	.
NCS HS19701-5	3.67	0.596	0.072	0.117	0.183	.	0.502	0.171	.	(0.68)	0.0022	0.066	0.335	.	.	.	.
NCS HS19701-4	3.70	0.857	0.087	0.076	0.451	.	0.032	0.117	.	(0.031)	0.0017	0.030	0.158	.	.	.	.
NCS HS19701-3	3.29	1.22	0.045	0.056	0.689	.	0.046	0.030	.	.	0.009	0.043	0.071	.	.	.	.
NCS HS19701-2	2.99	0.329	0.033	0.038	0.937	.	0.194	0.080	.	.	0.024	0.216	0.044	.	.	.	.
NCS HS19701-1	2.46	0.072	0.011	0.019	0.099	.	0.183	0.511	.	.	0.005	0.0059	0.0090	.	.	.	.

RM

GRAY IRON

as cast (not chill cast) CONTAINS FREE GRAPHITE OES regularly requires extension of preburn time to analyze correctly

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	As	Co	Mo	Sb	Sn	Ti	V	mm Ø x mm H
BS 20G	3.33	0.58	0.028	0.029	3.02	0.54	0.38	0.086	0.008	0.004	0.022	0.19	(<0.001)	0.12	0.012	0.018	47 x 19+
BS 20W	3.27	0.62	0.045	0.036	2.64	0.29	0.082	0.092	0.004	0.004	0.005	0.054	(<0.001)	0.086	0.015	0.007	47 x 13
BS 20R	3.25	0.62	0.047	0.034	2.72	0.35	0.096	0.094	0.005	0.004	0.006	0.053	(<0.001)	0.104	0.015	0.007	47 x 19+
BS 20E	3.24	0.80	0.042	0.044	2.29	0.23	0.156	0.088	0.006	(0.003)	0.006	0.042	(<0.002)	0.093	0.017	0.007	47 x 19+
BS 20P	3.22	0.63	0.032	0.044	2.62	0.067	0.143	0.079	0.008	(0.004)	0.018	0.033	(<0.001)	0.099	0.018	0.017	44 x 19+

RM

Si-Mo CAST IRON

BAS SIMO: 48 mm x 42 mm x 12 mm block CTIF: each unit = one pair 43 mm Ø x 5 mm discs

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Ti	V	Co	As	Sn	Ce	Mg
CTIF SiMo-3	3.18	0.61	0.053	(0.0006)	4.02	0.0325	0.066	0.110	0.604	1.15	0.0176	0.0171	0.0296	.	.	.	0.013
CTIF SiMo-1	2.98	0.365	0.013	(0.0015)	4.03	0.035	0.065	0.036	0.752	.	(0.018)	(0.018)	(0.03)	.	.	.	0.019
CTIF SiMo-5	2.94	0.439	0.0282	.	4.31	0.0121	0.194	0.032	0.841	.	0.010	(0.0095)	(0.013)	.	.	.	.
CTIF SiMo-2	(2.85)	0.335	0.0260	(0.001)	3.85	0.036	(0.061)	0.038	1.04	1.51	(0.016)	(0.017)	(0.030)	.	.	.	0.072
BAS SIMO 1/3	2.70	0.333	0.040	0.007	4.07	0.028	0.030	0.899	0.776	0.026	0.007	0.007	0.013	0.047	0.048	.	0.036
CTIF SiMo-4	2.70	0.280	0.0211	(0.0015)	4.35	0.0657	(0.029)	0.0845	0.400	(0.038)	0.0171	0.0133	(0.015)	.	.	.	0.100
BAS SIMO 1/6	2.50	0.372	0.036	0.005	4.04	0.016	0.060	0.750	0.727	0.025	0.010	0.020	0.025	(0.001)	0.053	.	(0.002)
BAS SIMO 2/4	2.26	0.440	0.026	0.009	4.49	0.009	0.015	0.896	0.443	0.013	0.006	0.008	0.005	(0.002)	0.056	0.006	(0.002)
BAS SIMO 2/2	2.14	0.434	0.025	0.007	4.75	0.010	0.0189	0.856	0.484	0.013	0.005	0.009	0.0029	0.039	0.038	0.006	0.026 last

DUCTILE / NODULAR IRON

= Class, where 1 = CRM and 2 = RM

* Provisional Analysis

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Ce	Co	Mg	Mo	Ti	V
1	SCRM 666/12	3.599	0.106	.	.	1.763	0.0581	1.709	0.102	.	.	.	0.083	0.0979	0.1069	0.0486
1	SCRM 667/13	3.04	0.222	.	.	2.866	0.497	1.303	0.294	.	0.110	.	0.070	.	.	0.103
1	BS 286CI	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	0.052	0.258	0.052	0.150
1	BS 286CH	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	0.051	0.258	0.052	0.150
1	BS 286CG	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	0.050	0.258	0.052	0.150
1	BS 286CF	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	0.049	0.258	0.052	0.150
1	BS 286CE	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	0.048	0.258	0.052	0.150
1	BS 291HK	3.35	0.535	0.024	0.008	2.31	0.212	0.101	0.035	0.040	.	(0.004)	0.047	0.030	0.0223	0.0206
1	BS 291HJ	3.35	0.535	0.024	0.008	2.31	0.212	0.101	0.035	0.040	.	(0.004)	0.046	0.030	0.0223	0.0206
1	BS 291HI	3.35	0.535	0.024	0.008	2.31	0.212	0.101	0.035	0.039	.	(0.004)	0.045	0.030	0.0223	0.02061
1	BS 291HH	3.35	0.535	0.024	0.008	2.31	0.212	0.101	0.035	0.038	.	(0.004)	0.044	0.030	0.0223	0.0206
1	BS 291HG	3.35	0.535	0.024	0.008	2.31	0.212	0.101	0.035	0.037	.	(0.004)	0.043	0.030	0.0223	0.0206
1	BS 291HF	3.35	0.535	0.024	0.008	2.31	0.212	0.101	0.035	0.036	.	(0.004)	0.042	0.030	0.0223	0.0206
1	SCRM 670/25	3.178	0.324	0.0466	0.0085	2.152	0.978	0.965	0.488	.	0.0092	.	0.0414	0.0110	0.0820	0.0125
1	BS 285CJ	3.30	0.701	0.047	0.008	1.94	0.31	1.27	1.00	0.022	.	(0.005)	0.041	0.190	0.044	0.133
1	BS 291HE	3.35	0.535	0.024	0.008	2.31	0.212	0.101	0.035	0.035	.	(0.004)	0.041	0.030	0.0223	0.0206
1	BS 285CI	3.30	0.701	0.047	0.008	1.94	0.31	1.27	1.00	0.021	.	(0.005)	0.040	0.190	0.044	0.133
1	BS 291HD	3.35	0.535	0.024	0.008	2.31	0.212	0.101	0.035	0.035	.	(0.004)	0.040	0.030	0.0223	0.0206
1	BS 285CH	3.30	0.701	0.047	0.008	1.94	0.31	1.27	1.00	0.021	.	(0.005)	0.039	0.190	0.044	0.133
1	BS 291HC	3.35	0.535	0.024	0.008	2.31	0.212	0.101	0.035	0.034	.	(0.004)	0.039	0.030	0.0223	0.0206
1	BS 285CG	3.30	0.701	0.047	0.008	1.94	0.31	1.27	1.00	0.021	.	(0.005)	0.038	0.190	0.044	0.133
1	BS 285CF	3.30	0.701	0.047	0.008	1.94	0.31	1.27	1.00	0.021	.	(0.005)	0.037	0.190	0.044	0.133
1	BS 285CE	3.30	0.701	0.047	0.008	1.94	0.31	1.27	1.00	0.020	.	(0.005)	0.036	0.190	0.044	0.133
1	BS 285CD	3.30	0.701	0.047	0.008	1.94	0.31	1.27	1.00	0.020	.	(0.005)	0.035	0.190	0.044	0.133
1	BS 285CC	3.30	0.701	0.047	0.008	1.94	0.31	1.27	1.00	0.020	.	(0.005)	0.034	0.190	0.044	0.133
1	BS 285CB	3.30	0.701	0.047	0.008	1.94	0.31	1.27	1.00	0.019	.	(0.005)	0.033	0.190	0.044	0.133
1	SRM C1137a	2.86	0.52	0.087	0.017	1.15	0.192	2.17	0.643	(0.007)	0.016	.	0.032	0.86	(0.04)	0.019
1	SCRM 669/15	3.09	0.52	0.041	0.0108	2.41	0.217	0.48	0.260	.	0.040	.	0.023	0.057	0.058	0.50
1	SCRM 668/14	3.77	0.702	0.045	0.0220	1.72	0.65	0.096	0.99	.	0.023	.	0.009	0.0179	0.086	0.195
1	SRM C2424	2.68	0.268	0.041	0.024	3.37	0.125	0.061	0.13	(<0.01)	0.0046	(0.05)	0.006	0.019	0.050	0.083

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Ce	Co	Mg	Mo	Ti	V
	Number	As	B	Ca	Fe	La	Nb	Pb	Sb	Sn	W	Zr	Units			
	SCRM 666/12	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm			
	SCRM 667/13	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm			
	BS 286CI	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm			17034
	BS 286CH	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm			17034
	BS 286CG	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm			17034
	BS 286CF	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm			17034
	BS 286CE	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm			17034
	BS 291HK	(0.004)	0.0144	0.0010	93.19	H:0.0005	N:0.0064	<0.005	(0.006)	0.057	(0.003)	0.0019	~35 mm Ø x ~30 mm			17034
	BS 291HJ	(0.004)	0.0144	0.0010	93.19	H:0.0005	N:0.0064	<0.005	(0.006)	0.057	(0.003)	0.0019	~35 mm Ø x ~30 mm			17034
	BS 291HI	(0.004)	0.0144	0.0010	93.19	H:0.0005	N:0.0064	<0.005	(0.006)	0.057	(0.003)	0.0019	~35 mm Ø x ~30 mm			17034
	BS 291HH	(0.004)	0.0144	0.0010	93.19	H:0.0005	N:0.0064	<0.005	(0.006)	0.057	(0.003)	0.0019	~35 mm Ø x ~30 mm			17034
	BS 291HG	(0.004)	0.0144	0.0010	93.19	H:0.0005	N:0.0064	<0.005	(0.006)	0.057	(0.003)	0.0019	~35 mm Ø x ~30 mm			17034
	BS 291HF	(0.004)	0.0144	0.0010	93.19	H:0.0005	N:0.0064	<0.005	(0.006)	0.057	(0.003)	0.0019	~35 mm Ø x ~30 mm			17034
	SCRM 670/25	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm			
	BS 285CJ	0.0022	(0.007)	0.0018	90.89	.	(0.004)	(0.0007)	(0.015)	(0.0014)	0.049	(0.005)	~33 mm Ø x ~30 mm			17034
	BS 291HE	(0.004)	0.0144	0.0010	93.19	H:0.0005	N:0.0064	<0.005	(0.006)	0.057	(0.003)	0.0019	~35 mm Ø x ~30 mm			17034
	BS 285CI	0.0022	(0.007)	0.0018	90.89	.	(0.004)	(0.0007)	(0.015)	(0.0014)	0.049	(0.005)	~33 mm Ø x ~30 mm			17034
	BS 291HD	(0.004)	0.0144	0.0010	93.19	H:0.0005	N:0.0064	<0.005	(0.006)	0.057	(0.003)	0.0019	~35 mm Ø x ~30 mm			17034
	BS 285CH	0.0022	(0.007)	0.0018	90.89	.	(0.004)	(0.0007)	(0.015)	(0.0014)	0.049	(0.005)	~33 mm Ø x ~30 mm			17034
	BS 291HC	(0.004)	0.0144	0.0010	93.19	H:0.0005	N:0.0064	<0.005	(0.006)	0.057	(0.003)	0.0019	~35 mm Ø x ~30 mm			17034
	BS 285CG	0.0022	(0.007)	0.0018	90.89	.	(0.004)	(0.0007)	(0.015)	(0.0014)	0.049	(0.005)	~33 mm Ø x ~30 mm			17034
	BS 285CF	0.0022	(0.007)	0.0018	90.89	.	(0.004)	(0.0007)	(0.015)	(0.0014)	0.049	(0.005)	~33 mm Ø x ~30 mm			17034
	BS 285CE	0.0022	(0.007)	0.0018	90.89	.	(0.004)	(0.0007)	(0.015)	(0.0014)	0.049	(0.005)	~33 mm Ø x ~30 mm			17034
	BS 285CD	0.0022	(0.007)	0.0018	90.89	.	(0.004)	(0.0007)	(0.015)	(0.0014)	0.049	(0.005)	~33 mm Ø x ~30 mm			17034
	BS 285CC	0.0022	(0.007)	0.0018	90.89	.	(0.004)	(0.0007)	(0.015)	(0.0014)	0.049	(0.005)	~33 mm Ø x ~30 mm			17034
	BS 285CB	0.0022	(0.007)	0.0018	90.89	.	(0.004)	(0.0007)	(0.015)	(0.0014)	0.049	(0.005)	~33 mm Ø x ~30 mm			17034
	SRM C1137a	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm			
	SCRM 669/15	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm			
	SCRM 668/14	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm			
	SRM C2424	.	(0.002)	.	.	0.0011	.	.	.	.	.	.	32 mm Ø x 19 mm			

Number	As	B	Ca	Fe	La	Nb	Pb	Sb	Sn	W	Zr	Units
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= Class, where 1 = CRM and 2 = RM

* Provisional Analysis

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mg	Te	Al	Ce	Co	Mo	Ti	V
1	CZ 20034 17b	4.38	0.501	0.089	0.0040	0.178	0.111	2.34	0.200	0.009	.	(0.002)	(0.003)	0.043	0.030	0.016	0.086
1	CZ 20034 17a	4.30	0.494	0.115	0.0034	0.170	0.082	2.38	0.200	0.007	.	(0.002)	(0.003)	0.043	0.030	0.016	0.086
1	CZ 20034 17c	4.08	0.503	0.104	0.0033	0.150	0.037	2.32	0.178	0.007	.	(0.002)	(0.003)	0.043	0.030	0.015	0.076
1	Y 2863-11A	4.03	0.61	0.613	0.026	0.79	0.96	0.46	1.65	0.008	.	.	.	.	0.94	0.30	0.079
2	CZ SPL17 43A	3.98	1.322	0.190	0.008	1.63	0.385	0.411	0.032	(0.04)	.	0.024	0.017	0.045	0.152	0.065	0.152
2	CZ SPL17 42A	3.94	0.764	0.294	0.0040	1.94	0.199	0.492	0.145	(0.06)	.	0.087	0.039	0.010	0.021	0.126	0.093
1	Y 451045	3.90	0.12	0.023	0.0027	2.29	0.022	0.45	0.028	0.033	.	.	.	.	0.0030	0.016	0.0014
1	SCRM 668/14	3.77	0.702	0.045	0.0220	1.72	0.65	0.096	0.99	0.009	.	.	0.023	.	0.0179	0.086	0.195
1	Y 2863-12	3.77	0.158	0.053	0.057	0.150	0.55	0.192	2.31	0.0024	.	.	.	.	0.44	0.030	0.229
1	CZ 02033 2f	3.77	0.091	0.159	0.009	1.23	0.89	0.658	0.022	0.053	.	0.024	0.018	(0.003)	(0.002)	0.021	0.010
1	VS ChG 25/1	3.75	0.67	0.013	0.0048	1.46	0.81	0.406	0.214	0.0096	.	.	.	.	0.271	0.0087	0.0070
1	CZ 02033 3c	3.68	0.333	0.026	0.007	2.15	0.421	0.040	0.100	0.006	(0.005)	0.024	0.013	0.026	0.490	0.021	0.016
1	SCRM 666/12	3.599	0.106	.	.	1.763	0.0581	1.709	0.102	0.0838	.	.	.	.	0.0979	0.1069	0.0486
1	VS ChG 27/1	3.59	1.20	0.039	0.019	1.97	0.351	0.030	0.139	.	.	0.011	.	.	0.131	0.060	0.070
2	Y 4510058B-18	3.59	0.435	0.047	0.020	1.68	0.268	0.595	0.526	0.042	.	.	0.022	.	0.180	0.044	0.174
2	Y 4510058C-18	3.59	0.435	0.047	0.020	1.68	0.268	0.595	0.526	0.039	.	.	0.022	.	0.180	0.044	0.174
2	Y 4510058D-18	3.59	0.435	0.047	0.020	1.68	0.268	0.595	0.526	0.036	.	.	0.022	.	0.180	0.044	0.174
2	Y 4510058E-18	3.59	0.435	0.047	0.020	1.68	0.268	0.595	0.526	0.032	.	.	0.022	.	0.180	0.044	0.174
2	CZ SPL17 31A	3.54	0.041	0.025	0.006	2.10	0.005	0.538	0.019	0.070	.	0.005	(0.004)	0.022	0.004	0.007	0.008
2	CZ SPL17 34A	3.48	0.980	0.105	0.008	2.29	0.230	0.493	0.102	0.026	.	0.010	0.008	0.025	0.072	0.044	0.073
1	CZ 20034 15c	3.47	0.060	0.054	0.0028	1.68	1.123	0.728	0.078	0.040	.	0.010	0.030	0.026	(0.002)	0.036	0.019
2	CZ SPL17 32A	3.39	0.288	0.037	0.007	2.74	0.306	0.015	0.060	0.024	.	0.029	(0.004)	(0.002)	0.116	0.044	0.005
2	CZ SPL17 40A	3.38	0.042	0.021	0.0035	1.98	0.010	0.045	0.031	0.007	.	0.096	0.012	0.027	0.005	0.015	0.014
1	VS ChG 28	3.29	0.414	0.025	0.015	2.22	1.29	0.166	0.								

BS: 28-34 mm Ø x 17-35 mm

CKD 24x: 37 mm x 37 mm x ~15-20 mm
CZ: 40 mm Ø x 18 mm

SCRM: 48 mm x 42 mm x 12 mm
SRM: 32 mm Ø x 19 mm

VS: ~40 mm Ø x ~40 mm
Y: 30 mm Ø x 30 mm

CAST IRON WITH MAGNESIUM - continued from the previous page

sizes shown below

Number	As	B	Bi	Ca	Fe	La	Nb	Pb	Sb	Se	Sn	W	Zr	Other
CZ 20034 17b	0.008	(0.0002)	(0.001)	.	.	.	.	(0.002)	.	.	(0.002)	0.004	.	
CZ 20034 17a	0.007	(0.0002)	(0.001)	.	.	.	.	(0.002)	.	.	(0.002)	0.004	.	
CZ 20034 17c	0.0005	(0.0006)	(0.002)	.	.	.	.	(0.002)	.	.	(0.002)	0.004	.	
Y 2863-11A	(0.022)	0.053	.	.	.	.	0.34	(0.0057)	(0.174)	.	(0.108)	0.010	.	30mm Ø x 28mm
CZ SPL17 43A	.	0.0014	(0.002)	.	.	.	0.008	0.014	(0.004)	.	0.067	0.038	Zn:0.013	
CZ SPL17 42A	.	0.0036	(0.002)	.	.	.	0.045	0.020	0.015	.	0.027	0.020	Zn:0.013	
Y 451045	.	.	.	.	.	.	.	.	.	.	.	.	.	last
SCRM 668/14	.	.	.	.	.	.	.	.	.	.	.	.	.	
Y 2863-12	(0.0097)	0.0078	.	.	.	.	0.21	(0.056)	(0.471)	.	(0.307)	0.13	.	
CZ 02033 2f	.	0.0020	(0.002)	.	.	.	.	0.005	0.028	.	0.014	(0.003)	(0.005)	Zn: 0.018
VS ChG 25/1	.	.	.	.	.	.	.	.	0.067	.	0.011	.	.	
CZ 02033 3c	(0.007)	0.0044	(0.002)	.	.	.	.	0.005	.	.	0.009	(0.003)	.	
SCRM 666/12	.	.	.	.	.	.	.	.	.	.	.	.	.	
VS ChG 27/1	.	.	.	.	.	.	.	.	0.036	.	0.125	.	.	
Y 4510058B-18	0.0021	0.024	.	.	.	.	.	.	.	.	.	.	.	
Y 4510058C-18	0.0021	0.024	.	.	.	.	.	.	.	.	.	.	.	
Y 4510058D-18	0.0021	0.024	.	.	.	.	.	.	.	.	.	.	.	
Y 4510058E-18	0.0021	0.024	.	.	.	.	.	.	.	.	.	.	.	last
CZ SPL17 31A	.	(0.0004)	.	.	.	.	.	.	.	.	(0.003)	(0.005)	.	
CZ SPL17 34A	.	0.0076	(0.005)	.	.	.	0.014	(0.006)	0.007	.	0.051	0.016	Zn:0.007	
CZ 20034 15c	(0.003)	0.0057	0.008	.	.	.	.	.	0.056	.	0.006	0.004	.	
CZ SPL17 32A	.	(0.0005)	(0.007)	.	.	.	.	0.022	0.023	.	(0.012)	(0.008)	Zn:0.011	
CZ SPL17 40A	.	0.0008	.	.	.	.	.	.	.	.	(0.004)	.	Zn: (0.002)	
VS ChG 28	.	.	.	.	.	.	.	.	0.015	.	0.0017	.	.	
VS ChG 28/1	.	.	.	.	.	.	.	.	.	.	0.0017	.	.	
Number	As	B	Bi	Ca	Fe	La	Nb	Pb	Sb	Se	Sn	W	Zr	Other
CZ 02033 1f	.	0.0043	(0.001)	.	.	.	.	0.009	.	.	0.030	0.022	(0.008)	
CZ 20034 13c	(0.002)	.	.	.	.	.	.	.	(0.002)	.	0.014	(0.003)	(0.02)	
CZ 20034 14c	0.035	0.0123	.	.	.	.	.	.	0.020	.	0.025	(0.003)	0.013	Zn: 0.010
CZ 20034 13a	(0.002)	.	.	.	.	.	.	.	(0.002)	.	0.014	(0.003)	0.029	
CZ 20034 13b	(0.002)	.	.	.	.	.	.	.	(0.002)	.	0.014	(0.003)	0.023	
BS CC-11A	0.0018	0.0008	(0.005)	(0.0009)	93.6	(0.004)	(0.007)	(0.002)	(0.01)	Zn:0.0032	(0.004)	(0.017)	(0.0025)	17034
VS ChM5/1	.	.	.	.	.	.	.	.	.	.	.	.	.	
SCRM 667/13	.	.	.	.	.	.	.	.	.	.	.	.	.	
VS ChG 24/1	.	.	.	.	.	.	.	.	0.011	.	0.081	.	.	
VS ChM6/1	.	.	.	.	.	.	.	.	.	.	.	.	.	
CZ SPL17 36A	.	0.022	(0.007)	.	.	.	.	0.016	.	.	(0.002)	.	Zn: (0.002)	
BS CC-11B	0.0074	0.0033	(0.016)	(0.002)	93.2	(0.008)	0.043	0.014	0.026	Zn:0.008	0.021	0.028	0.0165	17034
VS ChM13	.	.	.	.	.	.	.	.	.	.	.	.	.	
VS ChG 26/1	.	.	.	.	.	.	.	.	0.0055	.	0.034	.	.	
SCRM 669/14	.	.	.	.	.	.	.	.	.	.	.	.	.	
VS ChG 26	.	.	.	.	.	.	.	.	.	.	0.031	.	.	
VS ChM10	.	.	.	.	.	.	.	.	.	.	.	.	.	
SRM C1137a	.	.	.	.	.	.	.	.	.	.	.	.	.	
CZ SPL17 33A	.	0.0064	(0.002)	.	.	.	0.032	0.010	0.019	.	0.039	0.079	Zn:0.009	last of stock
SRM C2424	.	(0.002)	.	.	.	0.0011	.	.	.	.	.	.	.	
VS ChM9	.	.	.	.	.	.	.	.	.	.	.	.	.	
VS ChM11	.	.	.	.	.	.	.	.	.	.	.	.	.	
Y 2863-7	(0.021)	0.100	.	.	.	.	0.041	(0.0025)	(0.010)	.	(0.0073)	.	.	
Number	As	B	Bi	Ca	Fe	La	Nb	Pb	Sb	Se	Sn	W	Zr	Other

BS: 28-35 mm Ø x 17-35 mm

CZ: 40 mm Ø x 18 mm
SCRM: 48 mm x 42 mm x 12 mmSRM: 32 mm Ø x 19 mm
Y: 30-35 mm Ø x 18-30 mmVS ChM: ~39 mm Ø x ~39 mm
VS ChG: ~34 mm x ~35 mm X ~22 mm

RM

CAST IRON WITH YOUR CHOICE OF MAGNESIUM LEVELS

each unit: 2 pcs mushroom 43 mm Ø x 5 mm

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mg	Al	Ce	Co	Sn	Ti	V	Zn	Other
CTIF 6134	3.70	0.25	0.030	<0.01	1.60	0.020	2.00	0.040	*	.	<0.03	.	.	.	.	.	
CTIF 8532	3.7	0.288	0.05	.	2.6	0.0443	0.888	0.04	*	.	<0.025	.	0.0303	0.02	0.07	.	
CTIF 6135	3.6	0.38	0.0130	(0.003)	0.9	0.0219	1.98	0.04	*	(0.006)	.	0.037	.	0.007	0.0155	.	
CTIF 4500	3.38	0.60	0.059	(0.002)	1.97	.	1.45	0.014	*	0.033	0.023	0.065	.	.	.	.	
CTIF 5781	3.35	0.26	0.030	(0.0025)	2.50	0.0061	0.83	0.040	*	.	.	(0.004)	.	0.0208	0.0150	.	
CTIF 4497	3.12	0.605	0.043	(<0.002)	2.66	0.048	1.90	0.040	*	.	.	.	0.094	0.031	0.44	.	
CTIF 7160	3.1	0.57	0.05	(0.001)	2.4	0.08	1.0	(0.1)	*	(0.02)	0.02	0.09	.	0.013	0.018	.	As: 0.009
CTIF 5037	3.04	0.76	0.043	(0.0025)	3.40	.	0.64	0.014	*	.	.	.	.	0.029	.	.	
CTIF 3601B	3.0	0.35	0.037	(0.005)	2.1	0.019	1.08	0.029	*	.	<0.01	.	.	0.016	(0.005)	<0.05	Pb: (<0.002)
CTIF 8018	3.0	0.7	0.07	(0.0015)	3.0	0.08	0.127	0.09	*	0.02	(<0.02)	.	0.07	0.06	0.39	.	Sb: (0.01)
CTIF 6736	2.8	0.65	0.012	(0.002)	1.6	0.0258	1.7	0.03	*	.	.	.	.	0.008	(0.03)	.	
CTIF 5783	2.55	0.2	0.0266	(0.003)	2.3	0.110	1.23	0.05	*	.	.	0.0074	.	0.015	0.0127	.	As: 0.0016

Magnesium level available in the below samples. X = available

For Mg Range	Order Suffix	3601B	4497	4500	5037	5781	5783	6134	6135	6736	7160	8018	8532
<0.005	<0.005	X	.	.	.	X	X	.	.	.	.	X	X
0.005 - 0.009	0.005	X	.	.	X	X	X	.	.	X	.	X	.
0.010 - 0.014	0.01	.	.	.	X	X	X	.	.	X	X	X	.
0.015 - 0.024	0.02	X	.	.	X	X	X	.	X	X	X	X	.
0.025 - 0.034	0.03	.	.	.	X	.	X	.	X	X	X	X	.
0.035 - 0.044	0.04	.	.	.	X	.	X	.	X	X	X	X	.
0.045 - 0.054	0.05	.	.	.	X	.	X	.	X	X	X	X	.
0.055 - 0.064	0.06	.	X	.	.	.	X	.	X	X	X	X	.
0.065 - 0.074	0.07	.	X	X	.	.	X	.	X	X	X	X	.
0.075 - 0.084	0.08	.	.	X	.	.	.	X	X	X	X	X	.
0.085 - 0.094	0.09	.	X	X	.	.	.	X	X	X	X	X	.
0.095 - 0.104	0.10	.	.	.	.	.	.	X	X	X	X	X	.
0.105 - 0.114	0.11	.	.	.	.	.	.	X	X	X	X	X	.
0.115 - 0.124	0.12	.	.	.	.	.	.	X	X	X	X	X	.
0.125 - 0.134	0.13	.	.	.	.	.	.	X	.	X	X	.	.
0.135 - 0.144	0.14	.	.	.	.	.	.	X	.	.	X	.	.
0.145 - 0.154	0.15	.	.	.	.	.	.	.	.	.	X	.	.
0.155 - 0.164	0.16	.	.	.	.	.	.	.	.	.	X	.	.
0.165 - 0.174	0.17	.	.	.	.	.	.	.	.	.	X	.	.
0.175 - 0.184	0.18	.	.	.	.	.	.	.	.	.	.	.	.

The above cast iron samples can be ordered with your choice of Magnesium. Examples:
to order CTIF 6736 with Mg 0.035 - 0.044 then order as part number CTIF 6736 0.04
to order CTIF 8018 with 0.08 % Mg, order as part number CTIF 8018 0.08

CRM

WHITE IRON

analysis listed in mass %

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	Nb	Ti	V	
BS WI-2	3.61	0.80	0.22	0.056	0.52	0.0124	0.254	0.229	0.0118	0.219	0.128	0.089	0.215	17025
SRM CII45	2.92	0.187	0.215	0.191	0.271	0.46	0.62	0.63	0.058	0.48	.	0.012	0.112	
VS ChG 10/6	(2.7)	0.86	0.103	0.0072	2.86	.	.	(0.2)	.	.	.	.	(0.3)	
VS ChG 11/6	(2.7)	0.312	0.23	0.039	1.79	.	.	(0.2)	.	.	.	.	(0.3)	
VS ChG 9/6	(2.7)	0.155	0.38	0.071	0.80	.	.	(0.2)	.	.	.	.	(0.3)	
BS WI-1	1.75	0.24	0.051	0.114	1.90	0.027	0.053	0.048	0.0074	0.0103	0.027	0.020	0.008	17025

Number	Al	As	B	Bi	Ca	Fe	Mg	Pb	Sb	Sn	W	Zr	Units
BS WI-2	0.0192	0.0016	0.0008	.	(0.00013)	[93.6]	(0.0002)	0.013	0.023	0.0042	0.023	0.0045	~35 mm Ø x ~30 mm
SRM CII45	(0.04)	(0.03)	(0.02)	(<0.01)	.	.	.	0.0012	(0.04)	(0.10)	.	(0.002)	32 mm Ø x 19 mm
VS ChG 10/6	.	(0.003-0.006)	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~40 mm
VS ChG 11/6	.	(0.003-0.006)	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~40 mm
VS ChG 9/6	.	(0.003-0.006)	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~40 mm
BS WI-1	0.075	0.0067	0.0032	.	0.0005	[95.5]	0.0009	0.115	.	0.0081	0.185	0.0034	~35 mm Ø x ~30 mm

CAST IRON

= Class, where 1 = CRM and 2 = RM

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Ce	La	Mg	Se	Te
1	MBH-FEPIGH-21	4.42	0.127	0.050	0.141	1.60	0.0113	0.040	0.088	0.20	0.018	.	.	.	.	.
1	NCS AH11112	3.95	0.511	0.055	0.014	2.30	0.487	0.141	0.251	0.014	.	.	.	0.032	.	.
1	NCS HS11799	3.95	0.511	0.055	0.014	2.30	0.487	0.141	0.251	0.014	.	0.012	0.0064	0.032	.	.
2	CZ SPL22 47A	3.82	0.084	0.137	0.011	1.07	0.82	0.606	0.016	0.024	(0.002)	0.010	.	0.035	.	.
1	VS ChG 56	(3.8)	(0.2)	(0.8)	(0.01)	(0.5)	(0.4)	(0.1)	(0.1)	(0.01)	(0.005)	.	.	.	.	.
1	VS ChG 57	(3.8)	(0.2)	1.17	(0.03)	(0.6)	(0.3)	(0.3)	(0.4)	(0.06)	(0.01)	.	.	.	.	.
1	NCS HS11798	3.78	0.606	0.053	0.020	2.73	0.526	0.856	0.700	0.042	.	0.0097	0.0042	(0.034)	.	.
1	NCS HS92745A	3.67	0.443	0.068	0.049	1.49	0.363	0.341	0.482	.	.	.	.	.	.	.
1	SCRM 660/11	3.62	0.444	0.137	0.115	1.74	.	.	.	.	.	.	.	.	.	.
2	CZ SPL22 46A	3.66	0.098	0.109	0.010	1.42	0.86	0.628	0.014	0.026	.	0.005	.	0.047	.	.
2	CZ SPL22 48A	3.63	0.338	0.025	0.006	2.15	0.407	0.043	0.128	0.021	0.025	0.009	.	0.019	.	.
1	NCS HS92744c	3.59	0.435	0.047	0.020	1.68	0.268	0.595	0.526	.	.	0.022	.	0.042	.	.
1	NCS HS92746a	3.59	0.226	0.046	0.012	2.25	0.263	0.501	0.097	0.014	.	.	.	0.029	.	.
2	CZ SPL22 53A	3.56	0.052	0.053	0.0097	1.60	1.357	0.687	0.071	0.047	0.032	0.023	.	0.032	.	.
2	CZ SPL22 51A	3.46	0.405	0.147	0.004	1.63	0.152	0.111	0.075	0.006	0.035	.	.	.	.	.
1	VS ChG 48	3.44	0.100	0.0070	0.0039	0.923	0.90	1.15	0.032	0.049	0.044	.	.	0.072	.	.
2	CZ SPL22 50A	3.39	0.529	0.179	0.055	2.14	0.151	0.113	0.137	0.004	0.029	.	.	0.042	.	.
2	CZ SPL22 45A	3.33	0.778	0.031	0.010	2.83	0.008	0.405	0.058	0.031	0.032	.	.	0.066	.	.
1	MBH FEPIGM-21	3.22	0.077	0.051	0.053	0.71	0.0117	0.028	0.057	0.060	0.015	.	.	.	.	.
2	CZ SPL22 44A	3.20	0.711	0.033	0.005	2.51	0.018	0.521	0.063	0.046	0.024	0.005	.	0.015	.	.
1	NCS AH11353	3.15	0.47	0.020	0.0006	2.30	0.029	0.59	0.025	0.023	0.015	.	.	0.029	.	.
2	CZ SPL22 49A	3.12	0.328	0.038	0.009	2.06	0.384	0.132	0.300	0.064	0.094	(0.005)	.	0.007	.	.
1	SCRM 658/13	3.106	0.563	0.259	0.0547	1.973	.	.	.	.	.	.	.	.	.	.
2	CZ SPL22 52A	3.03	0.301	0.021	0.0094	2.38	0.607	0.021	0.025	0.011	0.010	0.012	.	0.008	.	.
1	BS CC-23	2.96	0.73	0.53	0.082	0.43	0.307	0.56	0.467	0.060	0.090	(0.0006)	(0.0008)	(0.0006)	.	(0.03)
1	11X C1-22	2.78	1.28	0.098	0.048	1.41	0.179	0.588	0.293	0.0131	0.086	.	.	.	(0.003)	.
1	MBH FePIGL-21	1.69	0.218	0.052	0.004	0.335	0.0041	0.014	0.0209	0.0154	0.0114	.	.	.	.	.
2	MBH FePIGL-RM	1.6	0.17	0.051	0.004	0.12	0.003	0.013	0.017	0.004	0.011	no uncertainties	.	.	.	.

Number	As	B	Bi	Fe	Mo	Nb	Pb	Sb	Sn	Ti	V	W	Zn	Zr	Units in mm
MBH-FEPIGH-21	0.0015	.	.	.	0.027	0.019	.	.	0.0075	0.42	0.108	(0.004)	.	0.0039	~40 Ø x ~15
NCS AH11112	.	.	.	.	0.474	.	.	.	0.055	0.117	0.312	.	.	.	31 Ø x 30
NCS HS11799	.	.	.	.	0.474	.	.	.	0.055	0.117	0.312	.	.	.	31 Ø x 30
CZ SPL22 47A	.	(0.0005)	.	.	(0.002)	.	0.012	0.026	0.016	0.027	0.007	0.004	0.027	(0.010)	40 Ø x 18
VS ChG 56	0.18	(0.001)	.	.	(0.01)	(0.002)	.	0.014	.	(0.06)	(0.02)	(0.004)	.	.	~37 Ø x ~17
VS ChG 57	0.095	(0.002)	.	.	(0.01)	(0.004)	.	(0.001)	(0.01)	(0.08)	(0.04)	(0.01)	.	.	~37 Ø x ~17
NCS HS11798	.	.	.	.	0.359	.	.	0.025	0.032	0.117	0.018	.	.	.	31 Ø x 30
NCS HS92745A	0.010	0.042	.	.	0.223	.	.	0.221	.	0.035	0.114	.	.	.	30 Ø x 30
SCRM 660/11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 x 42 x 12
CZ SPL22 46A	(0.003)	0.0021	0.005	.	0.011	(0.012)	0.021	0.024	0.014	0.046	0.008	0.008	0.018	(0.004)	40 Ø x 18
CZ SPL22 48A	(0.021)	0.0045	.	.	0.482	.	0.015	.	0.010	0.030	0.016	.	.	.	40 Ø x 18
NCS HS92744c	0.0021	0.024	.	.	0.180	.	.	.	.	0.044	0.174	.	.	.	35 Ø x 30
NCS HS92746a	(0.003)	0.0086	.	.	0.214	.	.	.	.	0.040	0.033	.	.	.	35 Ø x 30
CZ SPL22 53A	(0.004)	0.0046	(0.007)	.	0.002	.	.	0.066	0.007	0.035	0.013	0.010	(0.004)	.	40 Ø x 18
CZ SPL22 51A	(0.007)	.	(0.008)	.	0.037	.	0.006	0.012	0.072	0.033	0.017	(0.005)	(0.002)	.	40 Ø x 18
VS ChG 48	0.0021	.	.	.	0.591	.	.	0.0017	0.0018	0.0022	0.0016	.	.	.	~35 Ø x ~17
CZ SPL22 50A	.	(0.0008)	0.011	.	0.045	.	0.004	0.011	0.068	0.030	0.015	(0.006)	.	.	40 Ø x 18
CZ SPL22 45A	.	0.022	.	.	0.182	.	0.005	.	0.034	0.079	0.022	0.015	.	(0.015)	40 Ø x 18
MBH FEPIGM-21	(0.0018)	.	.	.	0.0157	0.014	.	.	0.0061	0.258	0.071	(0.003)	.	0.0022	~40 Ø x ~15
CZ SPL22 44A	.	0.0037	0.009	.	0.174	(0.014)	0.017	0.018	0.026	0.084	0.014	0.018	0.009	(0.007)	40 Ø x 18
NCS AH11353	0.008	0.004	.	.	0.002	N:0.003	.	0.0005	0.003	0.027	0.032	0.003	.	.	30 Ø x 25
CZ SPL22 49A	0.020	0.0075	.	.	0.475	(0.005)	0.008	(0.007)	0.011	0.024	0.081	0.013	(0.003)	.	40 Ø x 18
SCRM 658/13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 x 42 x 12
CZ SPL22 52A	0.041	0.0082	0.011	.	0.621	(0.003)	(0.003)	0.014	0.032	0.029	0.023	(0.004)	0.004	0.015	40 Ø x 18
BS CC-23	0.016	0.067	.	(92.8)	0.267	(0.002)	0.008	0.17	0.052	0.091	0.195	(0.002)	17025	0.057	~32 Ø x ~17 17034
11X C1-22	0.0145	0.031	0.0048	N:0.013	0.034	0.080	(0.003)	0.048	0.049	0.103	0.142	0.104	.	0.0028	disc
MBH FePIGL-21	.	.	.	.	0.0023	0.007	.	.	0.0028	0.0048	0.0184	0.0015	.	.	disc
MBH FePIGL-RM	.	.	.	.	0.003	.	.	.	.	0.002	0.015	.	.	.	disc

Number	As	B	Bi	Fe	Mo	Nb	Pb	Sb	Sn	Ti	V	W	Zn	Zr	Units in mm
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CAST IRON WITH C > 2.75%

CONTINUED ON THE NEXT PAGE

= Class, 1 = CRM and 2 = RM

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	Nb	Sn	Ti	V	Zn
2	CZ SPL17 35A	4.55	0.096	0.024	0.011	0.078	0.004	0.024	0.022	(0.002)	0.023	0.003	.	(0.002)	(0.002)	0.009	.
2	MBH FEPIGH-RM	4.5	0.10	0.048	0.11	1.64	0.011	0.040	0.087	0.17	0.019	0.027	no uncertainties		0.41	0.12	.
1	CZ 02033 4e	4.45	0.034	0.023	0.006	0.090	0.005	0.049	0.030	(0.003)	0.033	0.002	.	(0.001)	0.011	0.015	.
1	CZ 02033 4d	4.19	0.112	0.050	0.041	0.259	0.084	0.063	0.056	0.007	(0.003)	0.024	.	(0.001)	0.009	0.012	0.009
1	SCRM 659/9	4.174	1.010	0.0215	0.0372	1.361	.	.	.	.	.	.	.	.	.	.	.
1	Y 2582-7	4.13	2.06	0.306	0.111	1.85	.	0.026	0.157	.	.	.	.	.	0.399	0.821	.
1	DSZU CH04	4.01	1.77	0.074	0.018	0.73	0.55	0.273	0.100	0.014	(0.05)	(0.004)	(0.005)	(0.002)	0.025	(0.004)	.
1	DSZU CH05	3.99	2.23	0.119	0.039	0.46	0.61	0.85	1.63	(0.002)	(0.07)	0.109	(0.3)	(0.01)	0.070	0.200	.
1	DSZU CH06	3.88	0.85	0.050	0.050	0.28	1.03	1.23	(2.8)	0.025	(0.07)	0.29	(0.05)	(0.03)	0.33	0.205	.
1	CZ 20034 16c	3.87	1.311	0.173	0.0243	0.95	0.345	0.376	0.332	0.004	0.006	0.195	.	0.125	0.057	0.027	0.017
1	CZ 20034 16a	3.80	1.292	0.171	0.0266	1.00	0.332	0.390	0.374	0.007	0.010	0.203	.	0.125	0.0763	0.021	0.019
1	11X C6W	3.80	0.967	0.088	0.064	0.81	0.952	0.072	0.396	0.021	0.046	1.32	0.010	0.030	0.195	0.045	0.0045
1	CZ 20034 16b	3.78	1.327	0.170	0.0236	1.00	0.332	0.388	0.378	0.007	0.010	0.202	.	0.121	0.070	0.029	0.020
1	VS ChG 32	3.74	1.90	0.061	0.018	0.60	0.171	.	0.031	.	.	0.113	.	0.060	0.040	0.294	.
1	SCRM 674/1	3.71	1.437	0.0180	0.078	0.484	.	0.161	0.0296	0.0061	0.0066	0.0497	.	0.0164	0.0131	0.0125	.
1	Y 2582-4	3.70	0.857	0.087	0.076	0.451	.	0.032	0.117	.	.	(0.031)	.	.	0.030	0.158	.
2	CZ SPL17 39A	3.70	0.812	0.160	0.045	1.90	0.298	0.032	0.488	0.008	(0.002)	0.203	.	(0.003)	(0.074)	0.232	0.035
1	Y 2582-5	3.67	0.596	0.072	0.117	0.183	.	0.502	0.171	.	.	(0.68)	.	.	0.066	0.335	.
1	CZ 02033 7b	3.61	0.304	0.021	0.020	1.82	0.036	1.28	0.536	0.022	0.050	0.96	.	.	0.015	0.007	.
1	CZ 02033 7c	3.55	0.389	0.028	0.026	1.73	0.016	1.26	0.542	0.040	0.048	0.966	.	(0.004)	0.026	0.067	.
1	DSZU CH03	3.54	0.40	0.023	0.034	0.57	0.194	0.187	0.612	0.035	(0.05)	(0.019)	(0.010)	(0.004)	0.059	0.009	.
1	VS ChG 3/9	3.54	0.387	0.037	0.053	0.516	0.123	.	0.100	.	.	.	.	.	0.125	0.096	.
1	VS ChG 27	3.53	1.21	0.044	0.029	1.82	0.348	0.022	0.162	0.008	.	0.147	.	0.115	0.056	0.160	.
1	11X HPC4Q	3.48	1.19	1.63	0.102	1.70	0.078	2.03	0.788	.	.	0.101	.	.	.	0.029	.
1	Y 2863-5	3.47	0.78	0.564	0.070	0.89	0.365	0.62	1.53	.	.	0.67	.	.	0.133	0.129	.
1	11X C3AD	3.45	0.896	0.539	0.180	1.06	0.351	4.34	1.669	0.0104	0.240	0.235	0.021	0.166	0.127	0.605	0.007
1	CZ SPL17 41A	3.41	0.512	0.199	0.068	1.92	0.151	0.104	0.125	(0.003)	0.031	0.041	.	0.066	0.048	0.011	(0.001)
1	VS ChL1/1	3.39	0.53	0.048	0.029	1.32	0.344	0.410	0.264	.	0.017	0.036	.	.	0.061	0.073	.
2	CZ SPL17 38A	3.39	0.401	0.067	0.036	2.37	0.510	0.306	0.141	0.034	0.021	0.101	0.008	0.032	0.012	0.061	0.028
1	VS ChG 35	3.34	1.23	0.102	0.021	0.617	0.090	2.15	0.233	.	.	0.027	.	.	0.022	0.043	.
1	KUT 120	3.34	0.59	0.059	0.18	1.84	.	.	.	.	.	.	.	.	.	.	.
1	Y 2863-3	3.32	1.27	0.115	0.049	2.27	0.62	2.01	0.49	.	.	0.313	.	.	0.176	0.45	.
1	KUT 121	3.32	0.61	0.135	0.17	(1.86)	.	.	.	.	.	.	.	.	.	.	.
1	KUT 205	3.32	0.80	0.025	(0.010)	1.88	0.81	0.61	0.64	.	.	1.79	.	(0.035)	.	.	.
1	KUT 206	3.32	0.75	0.027	(0.010)	1.84	1.01	0.21	0.12	.	.	2.14	.	(0.107)	.	.	.
1	KUT 122	3.31	0.61	0.22	0.20	1.72	.	.	.	.	.	.	.	.	.	.	.
1	KUT 123	3.30	0.69	0.31	0.074	(1.87)	.	.	.	.	.	.	.	.	.	.	.
1	NCS HS11784	3.30	0.528	0.78	0.031	2.68	0.015	0.024	0.812	(0.0012)	.	0.142	(0.0012)	0.0005	0.084	0.020	.
1	Y 2582-3	3.29	1.22	0.045	0.056	0.689	.	0.046	0.030	.	.	.	.	.	0.043	0.071	.
1	VS ChG 4/9	3.24	1.42	0.030	0.024	0.455	0.199	.	0.155	.	.	.	.	.	0.10	0.169	.
1	11X HPC3K	3.24	1.00	2.52	0.078	1.37	0.132	1.52	1.19	.	.	0.172	.	.	.	0.042	.
2	BAS NCRM3	3.24	0.67	0.125	0.090	0.29	1.21	3.64	3.95	.	.	0.78	.	.	.	0.02	.
1	NCS HS11782	3.21	1.09	0.088	0.035	1.64	0.042	0.014	0.061	.	.	0.0048	.	.	0.027	0.0079	.
1	KUT 125	3.20	0.73	0.70	0.019	(1.87)	.	.	.	.	.	.	.	.	.	.	.
2	MBH FEPIGM-RM	3.2	0.066	0.045	0.064	0.69	0.008	0.029	0.057	0.060	0.016	0.014	no uncertainties		0.25	0.081	.
1	NCS HS11785	3.19	0.482	0.79	0.030	2.52	0.021	0.031	0.817	(0.0030)	.	0.139	(0.0009)	0.0010	0.076	0.018	.
1	DSZU CH02	3.18	1.09	0.007	0.0116	1.35	0.038	0.658	0.59	0.026	(0.06)	0.224	(0.4)	(0.014)	0.161	(0.005)	.
1	11X C2V	3.17	1.23	0.256	0.077	1.180	0.191	1.803	1.126	0.104	0.116	0.116	0.0160	0.0627	0.0870	0.328	0.0115
1	VS ChM 12	3.17	1.00	0.030	0.007	3.10	0.062	1.65	0.039	0.050	.	.	.	.	0.013	0.0027	.
1	SCRM 671/1	3.165	0.811	0.108	0.0503	0.868	.	0.0627	0.0609	0.030	0.098	0.0259	.	0.0103	0.0407	0.0122	.
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	Nb	Sn	Ti	V	Zn
1	KUT 126	3.16	0.81	1.41	0.016	1.90	.	.	.	.	.	.	.	.	.	.	.
1	KUT 202	3.16	0.81	0.024	(0.010)	1.77	0.24	2.07	2.36	.	.	0.44	.	(0.21)	.	.	.
1	SCRM 657/9	3.157	0.112	0.101	0.0401	3.209	.	.	.	.	.	.	.	.	.	.	.
1	KUT 204	3.15	0.80	0.023	(0.009)	1.79	0.64	1.09	1.22	.	.	1.38	.	(0.215)	.	.	.
1	KUT 127	3.14	0.79	1.55	0.014	1.81	.	.	.	.	.	.	.	.	.	.	.
1	CZ 02033 6c	3.11	1.25	0.097	0.019	3.25	0.273	0.021	1.33	0.024	0.005	0.006	.	0.131	0.107	0.192	.
2	CZ SPL17 37A	3.07	0.211	0.025	0.023	3.30	0.149	0.106	0.328	0.039	0.031	0.325	.	0.073	0.008	0.122	(0.001)
1	VS ChG 30	3.06	2.10	0.090	0.035	1.97	0.576	.	0.24	.	.	0.0061	.	0.015	0.012	0.0074	.
2	BAS NCRM1	3.05	1.22	0.300	0.156	0.95	2.17	0.57	0.55	.	.	1.02	.	.	.	0.03	.
1	VS ChL3/1	3.04	0.250	0.067	0.024	2.39	0.60	1.08	0.533	.	0.016	0.262	.	.	0.043	0.103	.
1	11X C9E	3.03	1.87	0.045	0.020	1.39	0.433	2.66	1.48	0.072	0.169	0.166	0.077	0.047	0.116	0.437	0.0091
1	DSZU CH08	3.02	0.79	0.056	0.058	2.05	1.60	2.52	2.13	0.29	(0.07)	0.96	(0.3)	(0.008)	0.315	0.34	.
1	VS ChG 39	3.01	0.82	0.304	0.088	1.45	0.414	1.09	1.08	.	.	0.113	.	.	0.168	0.274	.
2	BAS LARM2	(3.0)	(0.3)	(0.05)	(0.01)	(2.0)	.	.	2.50	0.066	.	0.22	.	0.22	0.33	.	.
2	BAS LARM4	(3.0)	(0.3)	(0.05)	(0.01)	(2.0)	0.26	.	1.19	0.014	.	1.00	.	0.11	0.17	.	.
2	BAS LARM1	(3.0)	(0.3)	(0.05)	(0.01)	(2.0)	2.49	0.49	0.50	.	.	.	.	.	0.14	0.11	.
2	BAS LARM5	(3.0)	(0.3)	(0.05)	(0.01)	(2.0)	.	2.46	.	.	.	0.62	.	0.025	.	0.24	.
2	BAS LARM3	(3.0)	(0.3)	(0.05)	(0.01)	(2.0)	1.20	1.80	.	0.042	.	.	.	.	.	0.55	.
1	Y 2863-4	2.99	0.93	0.310	0.059	1.54	0.97	0.93	0.76	.	.	0.61	.	.	0.090	0.082	.
2	BAS LARM5/1	2.98	0.33	0.049	0.012	2.02	.	2.56	.	.	.	0.58	.	0.023	.	0.23	.
2	BAS NCRM2	2.97	0.95	0.068	0.119	1.82	1.67	2.10	1.99	.	.	0.36	.	.	.	0.16	.
1	KUT 124	2.97	0.62	0.50	0.051	1.63	.	.	.	.	.	.	.	.	.	.	.
1	CZ 02033 6b	2.95	1.15	0.095	0.020	3.23	0.272	0.026	1.36	0.007	.	0.005	.	0.140	0.068	0.083	.
1	SCRM 662/4	2.95	0.76	0.30	0.087	2.33	.	.	(1)	.	.	.	.	.	.	.	.
1	VS ChG 36	2.94	0.454	0.232	0.036	1.50	0.70	0.542	0.476	.	.	0.406	.	.	0.027	0.086	.
1	CZ 20034 12b	2.92	1.047	0.484	0.077	2.96	0.223	0.174	0.638	0.077	0.008	0.117	.	0.042	0.071	0.326	0.004
1	SRM C1145a	2.92	0.187	0.215	0.191	0.271	0.46	0.62	0.63	(0.04)	0.058	0.48	.	(0.10)	0.012	0.112	.
1	VS ChG 34	2.87	0.54	0.230	0.086	1.20	0.140	.	1.22	.	.	0.201	.	0.29	0.030	0.115	.
1	CZ 20034 12a	2.82	0.996	0.480	0.073	2.57	0.160	0.174	0.640	0.077	0.004	0.114	.	0.041	0.085	0.340	(0.003)
1	NCS HS11786	2.82	0.768	1.70	0.064	2.05	0.044	0.048	1.98	(0.0094)	.						

CAST IRON WITH C > 2.75%

CONTINUED FROM THE PREVIOUS PAGE

analysis in mass % except * = mg/kg

Number	As	B	Bi	Ca*	Ce	La	Mg	N	Pb	Sb	Se	Te	W	Zr	Units
CZ SPL17 35A	.	(0.0002)	.	.	.	.	.	.	(0.002)	.	.	.	(0.005)	.	40 mm Ø x 18 mm last
MBH FEPIGH-RM	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø ~15 mm
CZ 02033 4e	.	.	(0.002)	.	.	.	.	.	.	(0.002)	.	.	.	.	40 mm Ø x 18 mm
CZ 02033 4d	(0.012)	(0.0001)	(0.002)	.	.	.	.	.	.	0.007	.	.	.	.	40 mm Ø x 18 mm
SCRM 659/9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
Y 2582-7	0.043	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 18-30 mm
DSZU CH04	.	(0.0007)	.	(7)	.	.	(0.0001)	.	(0.007)	.	.	.	(<0.0002)	.	~30 mm x ~35 mm x ~19mm
DSZU CH05	.	(0.03)	.	(20)	.	.	(0.001)	.	.	.	.	.	.	.	~30 mm x ~35 mm x ~19mm
DSZU CH06	.	(0.02)	.	(10)	.	.	.	.	.	.	.	.	0.1	.	~35 mm x ~35 mm x ~19mm
CZ 20034 16c	(0.003)	0.020	.	.	.	.	.	.	0.015	0.010	.	.	0.015	(0.002)	40 mm Ø x 18 mm
CZ 20034 16a	0.005	0.018	.	.	.	.	.	.	0.006	0.011	.	.	0.019	(0.002)	40 mm Ø x 18 mm
11X C6W	0.0544	0.0043	0.007	Cd: (0.0003)	Ag: 0.0042	.	.	0.0070	0.007	0.058	0.006	0.013	0.0242	.	~40 mm Ø x ~15 mm
CZ 20034 16b	0.005	0.018	.	.	.	.	.	.	0.007	0.011	.	.	0.019	(0.002)	40 mm Ø x 18 mm
VS ChG 32	.	.	0.361	.	.	.	.	.	.	.	.	.	.	.	~37 mm x ~37 mm x ~24 mm
SCRM 674/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
Y 2582-4	0.0017	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 18-30 mm
CZ SPL17 39A	.	0.0195	0.008	.	.	.	.	.	0.017	0.037	.	.	.	.	40 mm Ø x 18 mm
Y 2582-5	0.0022	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 18-30 mm
CZ 02033 7b	.	.	.	.	.	.	.	.	.	.	.	.	0.045	.	40 mm Ø x 18 mm
CZ 02033 7c	.	0.0008	(0.002)	.	.	.	.	.	.	.	.	(0.006)	0.037	.	40 mm Ø x 18 mm
DSZU CH03	(0.004)	(0.001)	.	(20)	.	.	(0.0001)	.	(0.01)	.	.	.	(0.006)	.	~30 mm x ~35 mm x ~16mm
VS ChG 3/9	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm x ~40 mm last
VS ChG 27	.	.	.	.	.	.	.	.	.	0.029	.	.	.	.	~35 mm x ~35 mm x ~22 mm
11X HPC40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
Y 2863-5	.	0.060	.	.	.	.	.	.	.	.	.	.	0.158	.	30 mm Ø x 18-30 mm
11X C3AD	0.086	0.0253	0.0124	.	.	.	.	0.0075	0.0170	0.243	0.028	.	0.040	.	~40 mm Ø x ~15 mm
CZ SPL17 41A	.	(0.0004)	(0.007)	.	.	.	.	.	0.010	0.016	.	.	0.012	.	40 mm Ø x 18 mm last
VS ChL1/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
CZ SPL17 38A	.	0.0027	(0.002)	.	.	.	.	.	(0.003)	0.018	.	.	(0.005)	.	40 mm Ø x 18 mm
VS ChG 35	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~34 mm Ø x ~37 mm
KUT 120	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
Y 2863-3	.	0.056	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 18-30 mm
KUT 121	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 205	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 206	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 122	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 123	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
NCS HS11784	0.0041	.	0.0083	.	.	.	.	.	0.0002	0.0007	.	.	.	.	31 mm Ø x 28 mm
Y 2582-3	0.009	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 18-30 mm
VS ChG 4/9	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~40 mm
11X HPC3K	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
BAS NCRM3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
NCS HS11782	0.0065	.	.	.	.	.	.	.	.	.	.	.	.	.	31 mm Ø x 28 mm
KUT 125	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
MBH FEPIGM-RM	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø ~15 mm
NCS HS11785	0.0049	.	0.013	.	.	.	.	.	0.0002	0.0005	.	.	.	.	31 mm Ø x 28 mm
DSZU CH02	.	(0.016)	.	(10)	.	.	(0.002)	.	.	.	.	.	.	.	~35 mm Ø x ~18 mm
11X C2V	0.0541	0.0098	0.0084	.	.	.	.	0.0096	0.0133	0.115	0.0157	.	0.0228	.	~40 mm Ø x ~15 mm
VS ChM 12	.	.	.	.	.	.	(0.08)	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
SCRM 671/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 12 mm
Number	As	B	Bi	Ca*	Ce	La	Mg	N	Pb	Sb	Se	Te	W	Zr	Units
KUT 126	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 202	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
SCRM 657/9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
KUT 204	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 127	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
CZ 02033 6c	.	0.0024	.	.	.	.	.	.	.	(0.003)	0.044	.	0.007	.	40 mm Ø x 18 mm
CZ SPL17 37A	.	0.0124	(0.002)	.	.	.	.	.	(0.002)	.	.	.	0.026	.	40 mm Ø x 18 mm
VS ChG 30	.	.	0.082	.	.	.	.	.	.	.	.	.	.	.	~37 mm x ~37 mm x ~24 mm
BAS NCRM1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
VS ChL3/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
11X C9E	0.53	0.0047	.	.	.	.	.	.	(0.0023)	0.145	.	0.0097	0.31	(0.0017)	~40 mm Ø x ~15 mm
DSZU CH08	.	(0.08)	.	(10)	.	.	.	.	.	.	.	.	.	.	~35 mm x ~35 mm x ~19mm
VS ChG 39	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~34 mm Ø x ~37 mm
BAS LARM2	0.044	.	.	.	0.008	.	.	.	0.007	.	.	.	.	.	40 mm x 37 mm x 10 mm
BAS LARM4	.	.	.	.	0.008	.	.	.	0.018	.	.	.	.	.	40 mm x 37 mm x 10 mm
BAS LARM1	.	0.006	0.011	.	0.005	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
BAS LARM5	0.018	0.0012	0.0010	.	.	.	.	.	0.0005	.	.	.	.	.	40 mm x 37 mm x 10 mm last
BAS LARM3	0.092	0.003	0.022	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
Y 2863-4	.	0.041	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 18-30 mm
BAS LARM5/1	.	0.0016	0.0012	.	.	.	.	.	<0.001	.	.	.	.	.	40 mm x 37 mm x 10 mm
BAS NCRM2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
KUT 124	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
CZ 02033 6b	.	.	.	.	.	.	.	.	.	0.049	.	.	.	.	40 mm Ø x 18 mm
SCRM 662/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
VS ChG 36	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~34 mm Ø x ~37 mm
CZ 20034 12b	0.024	0.047	0.006	.	.	.	.	.	0.009	0.046	.	.	0.007	(0.002)	40 mm Ø x 18 mm
SRM C1145a	(0.03)	(0.02)	.	.	.	.	.	.	0.0012	(0.04)	.	.	.	(0.002)	32 mm Ø x 19 mm
VS ChG 34	.	.	0.223	.	.	.	.	.	.	.	.	.	.	.	~37 mm x ~37 mm x ~24 mm
CZ 20034 12a	0.022	0.036	0.005	.	.	.	.	.	0.007	0.046	.	.	0.011	(0.002)	40 mm Ø x 18 mm
NCS HS11786	0.0075	.	0.015	.	.	.	.	.	0.0003	0.0008	.	.	.	.	31 mm Ø x 28 mm
11X C5Y	0.0203	0.0058	0.005	.	.	.	.	0.0094	0.0108	0.030	0.0072	(0.0022)	0.0072	(0.0024)	~40 mm Ø x ~15 mm
KUT 201	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
Number	As	B	Bi	Ca*	Ce	La	Mg	N	Pb	Sb	Se	Te	W	Zr	Units

CAST IRON WITH C < 2.75%

= Class, 1 = CRM and 2 = RM analysis in mass % except * = mg/kg

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	Nb	Sn	Ti	V	Zn
1	VS ChL4/1	2.69	1.37	0.054	0.027	1.99	0.161	0.725	0.92	.	0.017	0.116	.	.	0.11	0.258	.
1	SRM C1291	2.67	1.14	0.028	0.032	1.34	0.26	4.34	2.78	.	.	0.32	.	.	.	0.031	.
1	VS ChG 6/9	2.65	0.83	0.54	0.027	0.53	0.34	.	0.241	.	.	.	.	.	0.028	0.130	.
1	DSZU CH01	2.61	0.258	0.012	0.0045	1.95	0.097	0.072	0.88	0.079	(0.06)	0.070	(0.010)	(0.05)	.	0.132	0.134
1	VS ChG 40	2.59	1.56	0.059	0.019	1.60	0.98	1.61	1.47	.	.	0.229	.	.	0.18	0.325	.
1	11X C8V	2.60	0.394	1.00	0.204	1.643	0.310	0.275	0.148	0.086	0.126	0.148	0.0217	0.1063	0.235	0.064	0.0068
1	SCRM 661/4	2.56	0.30	0.84	0.068	2.96	.	.	(1)	.	.	.	.	.	.	.	.
1	SCRM 656/9	2.537	0.820	0.060	0.108	2.504	.	.	.	.	.	.	.	.	.	.	.
1	Y 2863-2	2.50	1.83	0.069	0.026	3.14	0.020	3.73	0.136	.	.	0.096	.	.	0.066	0.61	.
1	VS ChG 37	2.49	0.92	0.038	0.046	2.03	0.512	0.90	0.82	.	.	0.55	.	.	0.092	0.227	.
1	SCRM 673/1	2.455	0.123	0.317	0.0112	1.702	.	0.103	0.0423	0.0287	0.053	0.0092	.	0.0206	0.0718	0.052	.
1	CZ 20034 11b	2.44	0.382	0.271	0.140	3.67	0.130	0.082	1.178	0.067	0.005	1.144	.	0.074	0.041	0.182	.
1	VS ChG 47	2.43	0.949	0.099	0.083	2.73	0.0104	0.029	1.89	0.0056	0.0042	0.0019	.	0.093	0.041	0.129	.
1	VS ChG 38	2.43	0.302	0.386	0.084	2.30	1.20	0.162	1.98	.	.	0.046	.	.	0.105	0.119	.
1	CZ 02033 5b	2.42	0.812	0.033	0.073	1.32	0.031	0.188	0.061	0.062	.	0.089	.	.	0.007	0.005	.
1	VS ChL2/1	2.38	1.03	0.054	0.023	0.55	0.97	0.114	0.077	.	0.013	0.012	.	.	0.009	0.050	.
1	CZ 20034 11a	2.37	0.343	0.271	0.163	3.31	0.086	0.084	1.219	0.046	0.005	1.130	.	0.070	0.028	0.184	.
1	DSZU CH07	2.33	1.36	0.090	0.064	3.01	0.35	0.403	0.34	0.036	.	0.66	(0.08)	(0.07)	0.150	0.52	.
1	CZ 02033 5c	2.30	0.704	0.027	0.091	1.40	0.013	0.188	0.085	0.103	0.013	0.104	.	(0.002)	0.008	0.054	.
1	11X C4S	1.954	0.565	0.1014	0.096	2.98	0.095	3.21	1.382	0.006	0.0210	0.177	0.0233	0.0140	0.080	0.0165	0.0037
1	SCRM 675	1.92	1.81	0.045	0.072	1.29	0.012	0.210	0.080	0.007	0.023	0.034	.	0.0062	0.007	0.178	0.0006
1	SCRM 655/4	1.90	0.44	0.180	0.076	2.110	.	.	(1)	.	.	.	.	.	.	.	.
1	VS ChG 46	1.87	0.067	0.0106	0.108	3.24	0.0109	0.025	0.666	.	.	0.63	.	.	.	0.109	.
1	Y 2863-1	1.78	2.41	0.021	0.009	3.62	0.022	4.77	0.031	.	.	0.038	0.0052	.	0.068	1.13	.
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	Nb	Sn	Ti	V	Zn

Number	As	B	Bi	Ca*	Ce	Mg	N	Pb	Sb	Se	Te	W	Zr	Units
VS ChL4/1	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
SRM C1291	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
VS ChG 6/9	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~40 mm
DSZU CH01	.	(0.03)	.	(10)	.	(0.0005)	.	.	.	.	.	(0.02)	.	~30 mm x ~35 mm
VS ChG 40	.	.	.	.	.	.	.	.	.	.	.	.	.	~34 mm Ø x ~37 mm
11X C8V	0.0812	0.0366	0.014	.	.	.	0.0065	0.0052	0.069	0.0210	0.0049	0.0258	0.0064	~40 mm Ø x ~15 mm
SCRM 661/4	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
SCRM 656/9	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
Y 2863-2	.	0.0025	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 18-30 mm
VS ChG 37	.	.	.	.	.	.	.	.	.	.	.	.	.	~34 mm Ø x ~37 mm
SCRM 673/1	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
CZ 20034 11b	0.005	0.0032	0.007	.	.	.	.	0.007	0.011	.	.	(0.005)	0.007	40 mm Ø x 18 mm
VS ChG 47	0.014	.	.	.	.	.	.	.	0.040	.	.	.	.	~35 mm Ø x ~17 mm
VS ChG 38	.	.	.	.	.	.	.	.	.	.	.	.	.	~34 mm Ø x ~37 mm
CZ 02033 5b	.	0.014	0.020	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 18 mm
VS ChL2/1	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
CZ 20034 11a	0.005	0.0018	0.011	.	.	.	.	0.017	0.013	.	.	(0.005)	0.007	40 mm Ø x 18 mm
DSZU CH07	.	(0.13)	.	(10)	.	(0.01)	.	.	.	.	.	.	.	~35 mm x ~35 mm x ~19mm
CZ 02033 5c	.	0.0078	0.007	.	.	.	.	.	.	(0.002)	(0.010)	.	(0.009)	40 mm Ø x 18 mm
11X C4S	0.0235	0.0351	0.0070	.	.	.	0.0126	0.034	0.0055	0.009	.	0.099	.	~40 mm Ø x ~15 mm
SCRM 675	0.035	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
SCRM 655/4	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
VS ChG 46	.	.	.	.	.	.	.	.	0.140	.	.	.	.	~35 mm Ø x ~17 mm
Y 2863-1	.	0.0024	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 18-30 mm
Number	As	B	Bi	Ca*	Ce	Mg	N	Pb	Sb	Se	Te	W	Zr	Units

ALLOYED CAST IRON, CHART 1 of 2

= Class, where 1 = CRM and 2 = RM

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Pb	Sn	Ti	V	Mg	N
2	DSZU CH021	3.93	3.66	0.064	0.009	0.52	0.369	5.86	9.07	0.168	4.42	.	.	0.093	0.61	.	.
1	VS CHG 41/1	3.88	1.23	0.037	0.090	1.77	0.56	5.84	8.7	.	0.50	.	.	0.21	0.25	.	.
2	BAS NCRM5	3.70	0.27	0.025	0.015	1.15	0.204	6.74	10.44	.	0.10	.	.	.	0.06	.	.
1	SRM C1292	3.47	0.55	0.049	0.016	0.59	0.36	5.04	11.4	.	0.25	.	.	.	0.041	.	.
2	BAS CCRM5/2	3.43	0.30	0.029	0.018	0.20	0.22	0.36	30.35	0.15	0.63	.	.	0.009	0.11	.	.
1	Y 451052-1	3.31	1.54	0.369	0.0047	0.098	0.449	2.57	1.17	.	1.47	.	.	.	0.952	.	.
1	BS PM15	3.54	0.416	0.0198	0.0127	0.912	0.142	0.203	5.33	0.0025	1.22	(0.00001)	0.0034	0.0029	14.79	(0.0002)	0.111
1	VS CHG 44/1	3.25	1.91	0.018	0.029	1.28	2.46	0.210	25.4	.	0.028	.	.	0.43	0.106	.	.
1	11X 15309T	3.18	1.53	0.034	0.021	1.22	0.056	0.152	24.9	0.097	0.066	.	0.0047	0.013	0.098	.	.
1	Y 451052-7	3.13	0.201	0.024	0.116	2.48	0.154	0.129	31.26	.	0.086	.	.	0.033	0.087	.	.
2	58A SC01141	3.08	0.62	0.045	0.036	0.56	0.77	1.21	15.32	.	2.70	.	.	0.020	0.28	.	.
1	SRM C1290	3.04	0.66	0.030	0.013	0.971	0.065	0.917	30.5	.	(0.041)	.	.	.	0.442	.	.
1	Y TSK205	3.03	0.16	0.041	0.088	1.65	0.35	0.37	30.35	.	0.22	.	.	.	0.077	.	0.108
1	Y 451054-2	3.00	1.42	0.133	0.016	0.56	0.324	1.43	7.23	.	2.48	.	.	0.015	0.88	.	.
1	NCS HS11788	2.97	1.62	0.191	0.010	3.29	0.51	17.77	2.56	(0.0023)	0.0013	.	0.0003	0.043	0.017	.	.
1	Y 451052-2	2.96	1.24	0.211	0.0077	0.491	1.57	1.99	9.75	.	2.17	.	.	0.300	0.669	.	.
2	BAS NIRM5/1	2.95	1.01	0.103	0.005	1.50	0.21	21.7	0.51	.	.	.	.	.	.	0.055	.
2	58A ZS01036	2.95	0.719	0.077	0.024	0.970	0.448	0.806	13.89	.	0.683	.	0.048	0.035	0.135	.	.
2	BAS NIRM2/2	2.94	2.01	0.096	0.007	1.43	5.93	13.69	1.48	.	.	.	.	.	.	0.044	.
2	BAS CCRM4/2	2.93	0.58	0.049	0.042	0.45	0.53	0.58	21.93	<0.005	1.15	.	.	0.008	0.11	.	.
2	11X 20003K	2.91	1.53	0.174	0.007	3.03	0.52	17.8	2.53	.	.	.	.	.	.	.	.
1	11X S/1 Cr3J	2.91	0.861	0.072	0.023	1.07	9.01	14.53	1.61	.	.	.	.	.	.	.	.
2	DSZU CH022	2.90	1.76	0.033	0.018	0.43	2.53	2.19	14.85	0.053	2.65	.	.	0.078	0.45	.	.
2	11X 20001J	2.90	0.58	0.005	0.143	1.01	0.01	21.4	1.50	.	.	.	.	.	.	.	.
1	11X 15294W	2.76	0.451	0.082	0.029	0.36	0.103	0.309	29.3	(0.147)	0.091	0.012	0.036	.	0.132	.	.
1	Y 451054-3	2.73	1.09	0.105	0.036	0.99	0.451	1.20	12.97	.	2.08	.	.	0.045	0.66	.	.
1	VS CHG 45	(2.7)	1.01	0.096	0.047	2.96	0.040	0.60	32.65	.	0.198	.	.	0.011	0.111	.	.
1	VS CgG 42/1	2.69	2.78	0.068	0.034	0.411	1.37	0.26	14.8	.	1.87	.	.	0.131	0.48	.	.
2	BAS NCRM4	2.66	0.40	0.203	0.012	2.13	0.68	5.34	7.94	.	0.57	.	.	.	0.11	.	.
1	NCS HS11787	2.65	1.08	0.067	0.037	2.07	0.306	19.84	1.98	(0.085)	0.0014	.	0.0054	0.022	0.0096	.	.
1	11X 15310B	2.63	0.97	0.070	0.029	0.99	2.37	4.59	20.7	0.018	0.92	.	.	0.034	0.096	.	.
1	11X 0331-2M	2.62	1.85	0.050	(0.09)	3.14	6.68	15.1	1.54	0.137	0.067	0.019	0.0271	0.198	0.051	.	.
1	11X 15295S	2.58	1.02	0.059	0.048	0.783	0.213	0.326	28.5	0.122	0.363	0.008	0.026	0.008	0.270	.	.
1	Y TSK201	2.56	1.07	0.253	0.023	0.66	1.53	2.44	10.14	.	2.56	.	.	.	0.42	.	0.029
2	BAS NIRM6/1	2.53	4.07	0.225	0.049	2.68	0.11	26.9	1.02	.	0.51	.	.	.	.	.	.
2	BAS NIRM3	2.51	0.51	0.208	0.096	2.21	1.00	17.8	2.43	.	.	.	.	.	.	.	.
1	VS CHG 45/1	1.96	0.59	0.021	0.0091	3.08	0.056	0.95	33.8	.	0.209	.	.	.	0.21	.	.
1	VS CHG 43/1	0.87	1.02	0.063	0.076	4.44	0.171	0.439	23.7	.	0.107	.	.	0.033	0.040	.	.

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Pb	Sn	Ti	V	Mg	N
Number	B	Ce	Co	Nb	W	Zr	Units				Other						
DSZU CH021	.	.	.	.	.	.	35 mm x 35 mm x 16 mm										
VS CHG41/1	.	.	.	.	.	.	~37 mm Ø x ~22 mm										
BAS NCRM5	.	.	.	.	.	.	40 mm x 37 mm x 10 mm										
SRM C1292	.	.	.	.	.	.	32 mm Ø x 19 mm										
BAS CRRM5/2	.	.	.	.	.	.	48 mm x 42 mm x 12 mm										
Y 451052-1	0.177	.	.	0.018	0.015	.	30 mm Ø x 18-30 mm										
BS PM15	.	.	0.0330	0.014	0.109	(0.0005)	38 mm Ø x 19+ mm 17025				Fe:[73.0]	As:0.0040	N:0.111	O:0.0129			
VS CHG44/1	.	.	.	.	.	.	~37 mm Ø x ~22 mm										
11X 15309T	.	.	0.76	0.056	0.022	.	~40 mm Ø x ~15 mm										
Y 451052-7	0.015	.	.	0.010	0.175	.	30 mm Ø x 18-30 mm										
58A SC01141	.	.	.	.	.	.	~35 mm Ø x ~30 mm										
SRM C1290	.	.	.	.	.	.	32 mm Ø x 19 mm										
Y TSK205	.	.	.	.	.	.	35 mm Ø x 18-30 mm										
Y 451054-2	.	.	.	.	.	.	30 mm Ø x 18-30 mm										
NCS HS11788	0.0008	.	(0.0063)	.	(0.0002)	.	31 mm Ø x 28 mm				As: 0.014						
Y 451052-2	0.142	.	.	0.182	1.99	.	30 mm Ø x 18-30 mm										
BAS NIRM5/1	.	0.016	.	0.15	.	.	48 mm x 42 mm x 12 mm										
58A ZS01036	.	.	0.024	0.025	0.172	.	~32 mm Ø x ~30 mm				As: (0.003)						
BAS NIRM2/2	.	0.018	.	.	.	.	48 mm x 42 mm x 12 mm										
BAS CRRM4/2	.	.	.	.	.	.	48 mm x 42 mm x 12 mm										
11X 20003K	.	.	.	.	.	.	40 mm Ø x 15 mm										
11X S/1 Cr3J	.	.	.	.	.	.	~40 mm Ø x ~15 mm										
DSZU CH022	.	.	.	.	.	.	35 mm x 35 mm x 16 mm										
11X 20001J	.	.	.	.	.	.	40 mm Ø x 15 mm										
11X 15294W	.	.	0.128	.	0.265	.	~40 mm Ø x ~15 mm										
Y 451054-3	.	.	.	.	.	.	30 mm Ø x 18-30 mm										
VS ChG45	.	.	.	.	.	.	~36 mm x ~36 mm Ø x ~18 mm				last						
VS CHG42/1	.	.	.	.	.	.	~37 mm Ø x ~22 mm										
BAS NCRM4	.	.	.	.	.	.	40 mm x 37 mm x 10 mm										
NCS HS11787	0.0007	.	(0.0054)	.	(0.0002)	.	31 mm Ø x 28 mm				As: 0.0075						
11X 15310B	.	.	0.157	.	0.188	.	~40 mm Ø x ~15 mm										
11X 0331-2M	.	.	0.179	0.134	0.004	0.0022	~40 mm Ø x ~15 mm										
11X 15295S	.	.	1.55	0.091	0.202	(0.0012)	~40 mm Ø x ~15 mm										
Y TSK201	.	.	.	.	.	.	35 mm Ø x 18-30 mm										
BAS NIRM6/1	.	0.006	.	.	.	.	48 mm x 42 mm x 12 mm										
BAS NIRM3	.	0.007	.	0.09	.	.	40 mm x 37 mm x 10 mm										
VS CHG45/1	.	.	.	.	.	.	~37 mm Ø x ~22 mm										
VS CHG43/1	.	.	.	.	.	.	~37 mm Ø x ~22 mm										
Number	B	Ce	Co	Nb	W	Zr	Units				Other						

ALLOYED CAST IRON, CHART 2 of 2

= Class, where 1 = CRM and 2 = RM

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Pb	Sn	Ti	V	Mg	N
2	BAS CRRM3/2	2.37	0.92	0.073	0.087	1.21	1.09	1.35	18.78	0.102	1.58	.	.	0.015	0.042	.	.
2	DSZU CH023	2.33	0.43	0.023	0.073	0.98	0.054	0.715	23.45	0.255	1.46	.	.	0.38	0.288	.	.
1	Y 451054-4	2.31	0.725	0.071	0.046	1.40	0.739	0.914	17.60	.	1.44	.	.	0.084	0.46	.	.
1	Y TSK200	2.11	0.82	0.319	0.022	0.17	1.86	3.22	4.97	.	3.50	.	.	.	0.60	.	0.021
2	DSZU CH024	2.01	1.22	0.102	0.037	2.18	0.88	0.222	27.84	0.096	3.86	.	.	0.099	0.164	.	.
1	Y 451052-4	2.00	0.803	0.090	0.025	1.16	0.738	1.07	18.28	.	0.598	.	.	0.087	0.380	.	.
2	BAS NIRM4	1.97	2.37	0.051	0.008	3.03	0.52	20.2	3.56	.	.	.	.	.	.	0.014	.
1	NCS HS11789	1.97	1.08	0.048	0.076	2.58	6.39	17.80	2.51	0.061	0.062	0.015	0.014	0.011	0.0093	.	.
2	BAS CRRM2/1	1.92	1.11	0.097	0.079	1.18	1.59	1.61	14.13	0.054	2.44	.	.	0.070	0.063	.	.
2	BAS NIRM1/1	1.83	6.74	0.058	0.015	3.26	0.20	11.8	0.300	.	.	.	.	.	.	0.021	.
2	BAS CRRM1/1	1.83	1.45	0.132	0.099	1.53	2.01	2.03	11.18	0.117	3.05	.	.	0.096	0.040	.	.
1	Y 451054-5	1.83	0.466	0.043	0.091	1.80	0.904	0.517	23.40	.	0.739	.	.	0.068	0.26	.	.
1	Y TSK202	1.81	1.16	0.201	0.057	2.00	1.10	1.91	15.42	.	2.20	.	.	.	0.33	.	0.075
2	DSZU CH025	1.80	0.387	0.030	0.026	2.70	1.23	1.77	35.14	0.351	0.302	.	.	0.117	0.044	.	.
2	BAS CRRM1/2	1.70	1.43	0.16	0.099	1.84	1.97	2.03	11.28	0.140	3.06	.	.	0.054	0.063	.	.
2	DSZU CH026	1.62	0.305	0.050	0.032	1.14	0.288	3.63	35.87	0.059	0.96	.	.	0.013	0.067	.	.
1	Y 451052-5	1.48	0.579	0.041	0.058	1.37	0.583	0.708	22.55	.	0.359	.	.	0.056	0.314	.	.
2	BAS NIRM8/2	1.45	1.58	0.105	0.014	5.61	0.23	35.3	2.47	.	0.77	.	.	.	.	0.033	.
1	Y 451054-6	1.45	0.254	0.024	0.123	2.38	1.15	0.216	28.96	.	0.213	.	.	0.084	0.13	.	.
1	Y TSK203	1.23	0.68	0.117	0.044	0.46	0.75	1.55	19.93	.	1.58	.	.	.	0.22	.	0.094
1	Y 451052-6	1.16	0.302	0.033	0.086	1.44	0.845	0.289	25.76	.	0.150	.	.	0.019	0.146	.	.
1	Y TSK204	0.91	0.34	0.078	0.063	1.00	0.53	0.97	25.37	.	0.95	.	.	.	0.14	.	0.114
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Pb	Sn	Ti	V	Mg	N

Number	B	Ce	Co	Nb	W	Units	Other
BAS CRRM3/2	.	.	.	.	.	40 mm x 37 mm x 10 mm	
DSZU CH023	.	.	.	.	.	35 mm x 35 mm x 16 mm	
Y 451054-4	.	.	.	.	.	30 mm Ø x 18-30 mm	
Y TSK200	.	.	.	.	.	35 mm Ø x 18-30 mm	
DSZU CH024	.	.	.	.	.	35 mm x 35 mm x 16 mm	
Y 451052-4	0.086	.	.	0.071	1.05	30 mm Ø x 18-30 mm	
BAS NIRM4	.	0.011	.	0.37	.	40 mm x 37 mm x 10 mm	
NCS HS11789	0.0008	.	(0.0075)	.	(0.0002)	31 mm Ø x 28 mm	As: 0.0076 Bi: 0.067
BAS CRRM2/1	.	.	.	.	.	40 mm x 37 mm x 10 mm	
BAS NIRM1/1	.	0.022	.	.	.	40 mm x 37 mm x 10 mm	
BAS CRRM1/1	.	.	.	.	.	40 mm x 37 mm x 10 mm	last
Y 451054-5	.	.	.	.	.	30 mm Ø x 18-30 mm	
Y TSK202	.	.	.	.	.	35 mm Ø x 18-30 mm	
DSZU CH025	.	.	.	.	.	35 mm x 35 mm x 16 mm	
BAS CRRM1/2	.	.	.	.	.	40 mm x 37 mm x 10 mm	
DSZU CH026	.	.	.	.	.	35 mm x 35 mm x 16 mm	
Y 451052-5	0.076	.	.	0.022	0.694	30 mm Ø x 18-30 mm	
BAS NIRM8/2	.	0.013	.	.	.	48 mm x 42 mm x 12 mm	
Y 451054-6	.	.	.	.	.	30 mm Ø x 18-30 mm	
Y TSK203	.	.	.	.	.	35 mm Ø x 18-30 mm	
Y 451052-6	0.055	.	.	0.014	0.370	30 mm Ø x 18-30 mm	
Y TSK204	.	.	.	.	.	35 mm Ø x 18-30 mm	
Number	B	Ce	Co	Nb	W	Units	Other

RM

CAST IRON MUSHROOMS

CONTINUED ON THE NEXT PAGE

typical analysis

each unit is one pair of 43 mm Ø x 5 mm mushroom discs

Number	C	Si	Mn	P	S	Cu	Ni	Cr	Al	Co	Mo	Sn	Ti	V	W
CTIF FO19-2AB	4.04	1.05	1.05	0.032	0.057	.	.	.	.	.	.	.	.	.	.
CTIF FO12	3.71	1.86	0.44	0.038	0.004	0.77	.	.	0.008	.	.	0.011	.	.	.
CTIF FO8	3.6	1.04	0.37	0.107	0.021	0.215	0.30	0.30	.	.	0.005	0.05	0.055	0.014	.
CTIF FCR7	3.59	1.07	0.365	0.099	0.0427	0.704	0.947	33.65	.	.	2.62	.	.	.	.
CTIF FO6	3.49	0.55	0.715	0.87	0.106	0.120	0.128	0.45	.	.	0.202	0.039	0.080	0.110	.
CTIF FO10	3.5	0.67	1.05	0.20	0.101	0.114	0.118	0.38	.	.	0.20	.	0.1	0.08	.
CTIF NH3	3.47	0.85	0.175	0.36	0.024	0.031	2.53	1.76	.	.	0.73	.	.	.	.
CTIF FO11	3.45	1.57	0.685	0.052	0.103	0.211	0.235	0.34	.	(0.013)	0.225	0.066	0.078	0.113	.
CTIF FO18-2	3.4	1.2	0.60	1.34	0.136	0.049	0.140	0.170	.	.	0.179	0.046	0.055	0.102	.
CTIF NH7-1	3.43	0.95	0.63	0.035	0.022	0.105	5.53	9.02	.	.	.	.	.	.	.
CTIF FCR5	3.43	0.35	0.62	0.052	0.0175	1.02	2.69	28.5	.	.	3.27	.	.	.	.
CTIF FT2-1	3.39	1.415	0.78	0.045	0.095	0.01	0.070	0.030	.	.	.	.	0.100	0.405	.
CTIF FO18-1	3.25	1.33	0.52	1.11	0.132	0.09	0.18	0.087	.	.	0.16	0.15	0.17	0.17	.
CTIF NiMo1	3.22	2.585	0.200	0.0590	(0.0030)	0.376	2.165	0.0353	.	0.0205	0.457	0.0020	0.0190	0.0169	.
CTIF FL7	3.22	2.550	0.100	1.34	0.048	0.351	0.232	0.043	.	.	0.335	0.0291	0.0525	0.0796	.
CTIF FT3	3.2	1.55	0.345	0.063	0.051	0.015	0.092	0.685	.	.	.	.	0.2	0.016	.
CTIF NH7-2	3.2	1.20	0.91	0.034	0.0120	0.108	5.53	8.87	.	.	.	.	.	.	.
CTIF FO5	3.2	0.7	0.2	1.30	0.027	0.12	0.172	0.3	.	.	0.41	0.109	0.04	0.14	.
CTIF NH9	3.13	1.24	0.65	0.087	0.029	0.203	4.11	11.70	.	.	0.059	.	.	.	.
CTIF NR Cu1	3.12	1.465	0.172	0.090	0.99	4.95	18.02	0.994	(0.095)	.	.	.	.	.	.
CTIF FL6	3.1	1.4	0.6	0.012	0.18	0.079	1.03	0.167	.	0.028	0.50	0.005	0.15	0.033	.
CTIF FL10	3.1	1.3	0.85	0.323	0.066	0.104	0.10	(0.07)	(0.03)	.	0.0335	0.028	0.045	0.048	(0.02)
CTIF FPA 1	3.090	0.0300	0.100	0.0022	0.0009	0.0622	0.0450	0.0710	.	0.0097	0.0109	.	0.0010	0.0010	.
CTIF NR 8S	3.05	1.41	4.39	0.124	.	0.071	14.20	0.191	.	.	.	.	.	.	.
CTIF FO17	3.01	2.48	0.475	0.470	0.168	(0.006)	0.021	(0.016)	.	0.032	.	0.024	0.032	0.018	.
CTIF FAL 1	3.0	1.0	0.2	0.04	<0.001	0.2	0.06	0.04	2.1	.	0.015	.	0.01	.	.
CTIF NR 3L	2.99	3.05	0.72	0.088	0.052	0.26	21.58	2.97	.	.	.	.	.	.	.
CTIF NH1	2.98	1.35	0.90	0.060	0.105	1.99	1.38	0.83	.	.	1.45	.	.	.	.
CTIF NH8	2.98	0.80	0.57	0.052	0.076	0.065	8.16	5.03	.	.	0.125	.	.	.	.
CTIF NR 3S	2.92	2.91	0.77	0.024	.	0.33	24.63	3.05	.	.	.	.	.	.	.
Number	C	Si	Mn	P	S	Cu	Ni	Cr	Al	Co	Mo	Sn	Ti	V	W
CTIF FT1	2.9	2.12	0.71	0.12	0.025	0.012	0.11	0.057	.	.	.	0.067	0.19	0.525	.
CTIF NR 8L	2.89	1.70	5.19	0.054	0.030	0.075	13.33	0.165	.	.	.	.	.	.	.
CTIF NH4	2.84	0.49	0.28	0.12	0.022	0.09	3.60	2.46	.	.	0.30	.	.	.	.
CTIF FO4	2.81	1.51	0.64	0.58	0.009	0.31	0.32	0.17	.	0.58	0.095	0.013	0.075	0.049	.
CTIF FCR2	2.86	1.07	0.740	0.137	0.055	0.135	1.87	11.8	.	.	3.88	.	.	.	.
CTIF FL5	2.8	2.3	0.4	0.02	(0.005)	0.5	0.05	0.35	.	0.010	0.01	0.07	0.01	0.01	.
CTIF FCR Ni3	2.74	0.69	0.47	0.036	0.011	.	11.05	31.65	.	.	.	.	.	.	.
CTIF NH6	2.70	2.28	0.355	0.066	0.036	0.115	7.06	6.60	.	.	0.11	.	.	.	.
CTIF FO9	2.7	1.5	0.7	0.02	0.015	0.31	0.355	0.18	.	.	0.13	0.144	0.017	0.022	.
CTIF FL4	2.6	2.91	0.5	0.288	0.137	0.0168	0.061	0.45	.	.	0.090	0.011	0.0296	0.116	.
CTIF NR 1S	2.58	3.02	1.54	0.19	0.0015	0.11	20.60	2.00	.	.	.	.	.	.	.
CTIF NR 1L	2.50	3.00	1.34	0.125	0.10	0.49	25.87	1.74	.	.	.	.	.	.	.
CTIF NH2	2.50	1.81	1.04	0.047	0.058	1.02	1.78	1.26	.	.	1.01	.	.	.	.
CTIF NR Cu2	2.48	2.07	1.078	0.113	0.049	6.50	15.85	2.05	.	.	.	.	.	.	.
CTIF NR 4S	2.47	4.87	1.71	0.145	.	0.63	18.30	1.50	.	.	.	.	.	.	.
CTIF FCR4	2.47	1.40	2.05	0.097	0.066	1.32	0.571	24.2	.	.	2.16	.	.	.	.
CTIF FCR1	2.46	0.48	0.63	0.019	0.007	0.031	1.30	18.71	.	.	1.41	.	.	.	.
CTIF FO7-2	2.45	0.675	0.70	0.84	0.085	0.125	0.15	0.455	.	.	0.26	.	0.065	0.13	.
CTIF NR 4L	2.41	5.89	1.495	0.155	0.010	0.758	15.90	1.403	.	.	.	.	.	.	.
CTIF FO7-3	2.40	0.65	0.74	0.82	0.097	0.075	0.125	0.52	.	.	0.26	0.0015	0.045	0.12	.
CTIF NR 2S	2.32	1.43	0.530	0.062	.	0.210	36.3	0.51	.	.	.	.	.	.	.
CTIF NH5	2.31	0.31	0.24	0.115	0.04	0.035	4.90	2.85	.	.	0.017	.	.	.	.
CTIF FL3	2.3	2.1	0.27	0.729	(0.013)	0.102	0.553	0.107	.	.	0.106	0.111	0.05	0.049	.
CTIF NR 4G	2.24	5.60	1.72	0.11	(0.002)	0.64	21.30	1.40	.	.	.	.	.	.	.
CTIF NR 2G	2.25	1.47	0.380	0.0476	(0.003)	0.232	36.34	0.395	.	.	.	.	.	.	.
CTIF FL2	2.18	3.61	0.0400	0.049	0.082	0.0497	0.0238	0.440	(0.006)	0.0263	(0.004)	0.140	0.0750	0.201	.
CTIF FL1	2.1	3.2	0.80	0.118	0.0765	0.0195	0.245	0.06	.	(0.022)	0.038	0.305	0.020	0.015	.
CTIF FCR Ni2	2.02	1.50	0.61	0.185	0.024	.	13.05	29.00	.	.	.	.	.	.	.
CTIF NR Cu3	1.94	3.12	0.60	0.046	0.016	8.05	13.3	3.50	.	.	.	.	.	.	.
CTIF NR 6S	1.82	2.44	0.99	0.019	.	0.03	30.75	1.06	.	.	.	.	.	.	.
CTIF NR 5L	1.77	2.99	1.207	0.037	0.083	0.48	33.89	0.27	.	.	.	.	.	.	.
CTIF NR 6L	1.76	2.07	0.70	0.031	0.063	0.020	30.37	3.49	.	.	.	.	.	.	.
CTIF NR 5S	1.67	1.97	1.23	0.035	.	0.50	27.05	0.24	.	.	.	.	.	.	.
CTIF FCR6	1.44	0.76	1.47	0.201	0.086	0.480	0.188	30.84	.	.	0.455	.	.	.	.
CTIF FCR Ni1	1.27	1.63	0.71	0.41	0.06	0.02	16.50	26.20	.	.	.	.	.	.	.
Number	C	Si	Mn	P	S	Cu	Ni	Cr	Al	Co	Mo	Sn	Ti	V	W

CAST IRON MUSHROOMS

CONTINUED FROM THE PREVIOUS PAGE

Number	As	B	Bs	Bi	Ce	N	Nb	Pb	Sb	Te	Zn
CTIF FO19-2AB	.	.	.	.	.	.	.	.	.	0.0005	.
CTIF FO12	.	.	.	.	.	.	.	.	.	.	.
CTIF FO8	.	.	.	.	.	.	.	.	.	.	.
CTIF FCR7	.	.	.	.	.	.	.	.	.	.	.
CTIF FO6	.	.	.	.	.	.	.	.	.	.	.
CTIF FO10	.	.	.	.	.	.	.	.	.	.	.
CTIF NH3	.	.	.	.	.	.	.	.	.	.	.
CTIF FO11	.	.	.	.	.	.	.	.	.	.	.
CTIF FO18-2	.	.	.	.	.	0.004	.	.	.	.	.
CTIF NH7-1	.	.	.	.	.	.	.	.	.	.	.
CTIF FCR5	.	.	.	.	.	.	.	.	.	.	.
CTIF FT2-1	.	.	.	.	.	.	.	.	.	.	.
CTIF FO18-1	.	.	.	.	.	.	.	.	.	.	.
CTIF NiMo1	.	.	.	.	.	.	.	.	.	.	.
CTIF FL7	(0.0266)	(0.010)	.	(0.010)	.	0.0035	.	.	.	.	.
CTIF FT3	.	.	.	.	.	.	.	.	.	.	.
CTIF NH7-2	.	.	.	.	.	.	.	.	.	.	.
CTIF FO5	.	.	.	.	.	.	.	.	.	.	.
CTIF NH9	.	.	.	.	.	.	.	.	.	.	.
CTIF NR Cu1	.	.	.	.	.	.	.	.	.	.	.
CTIF FL6	.	0.008	.	.	.	.	.	.	.	.	.
CTIF FL10	(0.022)	.	(0.012)	(0.004)	.	.	(0.018)	(0.002)	(0.032)	(0.001)	(0.029)
CTIF FPA 1	0.0109	.	.	.	.	0.0125	.	.	.	.	.
CTIF NR 8S	.	.	.	.	.	.	.	.	.	.	.
CTIF FO17	.	.	.	.	.	.	.	.	.	.	.
CTIF FAL 1	.	.	.	.	.	.	.	.	.	.	.
CTIF NR 3L	.	.	.	.	.	.	.	.	.	.	.
CTIF NH1	.	.	.	.	.	.	.	.	.	.	.
CTIF NH8	.	.	.	.	.	.	.	.	.	.	.
CTIF NR 3S	.	.	.	.	.	.	.	.	.	.	.
Number	As	B	Bs	Bi	Ce	N	Nb	Pb	Sb	Te	Zn
CTIF FT1	.	.	.	.	.	.	.	.	.	.	.
CTIF NR 8L	.	.	.	.	.	.	.	.	.	.	.
CTIF NH4	.	.	.	.	.	.	.	.	.	.	.
CTIF FO4	.	.	.	.	.	.	.	.	.	.	.
CTIF FCR2	.	.	.	.	.	.	.	.	.	.	.
CTIF FL5	.	(0.002)	.	(0.0005)	.	.	.	.	.	.	.
CTIF FCR Ni3	.	.	.	.	.	.	.	.	.	.	.
CTIF NH6	.	.	.	.	.	.	.	.	.	.	.
CTIF FO9	.	.	.	.	.	.	.	.	.	.	.
CTIF FL4	(0.05)	.	.	(0.003)	.	0.007	.	.	.	.	.
CTIF NR 1S	.	.	.	.	.	.	.	.	.	.	.
CTIF NR 1L	.	.	.	.	.	.	.	.	.	.	.
CTIF NH2	.	.	.	.	.	.	.	.	.	.	.
CTIF NR Cu2	.	.	.	.	.	(0.0079)	.	.	.	.	.
CTIF NR 4S	.	.	.	.	.	.	.	.	.	.	.
CTIF FCR4	.	.	.	.	.	.	.	.	.	.	.
CTIF FCR1	.	.	.	.	.	.	.	.	.	.	.
CTIF FO7-2	.	.	.	.	.	0.0113	.	.	.	.	.
CTIF NR 4L	.	.	.	.	.	.	.	.	.	.	.
CTIF FO7-3	.	.	.	.	.	.	.	.	.	.	.
CTIF NR 2S - producer low stock, only undersized pieces remaining											
CTIF NH5	.	.	.	.	.	.	.	.	.	.	.
CTIF FL3	.	.	.	.	.	0.008	.	.	.	.	.
CTIF NR 4G	.	.	.	.	.	.	.	.	.	.	.
CTIF NR 2G	.	.	.	.	.	.	0.27	.	.	.	.
CTIF FL2	.	.	.	(0.0135)	.	.	.	.	.	.	.
CTIF FL1	.	.	.	.	.	.	.	.	.	.	.
CTIF FCR Ni2	.	.	.	.	.	.	.	.	.	.	.
CTIF NR Cu3	.	.	.	.	.	.	.	.	.	.	.
CTIF NR 6S	.	.	.	.	.	.	.	.	.	.	.
CTIF NR 5L	.	.	.	.	.	.	.	.	.	.	.
CTIF NR 6L	.	.	.	.	.	.	.	.	.	.	.
CTIF NR 5S	.	.	.	.	.	.	.	.	.	.	.
CTIF FCR6	.	.	.	.	.	.	.	.	.	.	.
CTIF FCR Ni1	.	.	.	.	.	.	.	.	.	.	.
Number	As	B	Bs	Bi	Ce	N	Nb	Pb	Sb	Te	Zn

ALLOY	ISO?	NUMBER	ALLOY	ISO?	NUMBER	ALLOY	ISO?	NUMBER
1.0812		ECRM 191-2D	15-5PH		IARM Fe155PH-18	314		IMZ 165
1.2344		ECRM 271-1D	15-5PH		ECRM 273-1D	314		IMZ 166A
1.4410		ECRM 298-2D	16MnCr5		PV 102/1	316 H		CT 316
1.4435, 1.4436		JK 27B	17-4PH		13X PH2	316 H		IARM 339A
1.5415		HRT FE2012-N	17-4PH		BS 17-4PHA	316 H		NILAB 500HAD
1.6587		HRT FE2013-N	17-4PH	17034	BS 17-4PHC	316 L	17034	BS 316G
1.7149 20MnCrS5		ECRM 187-2D	17-4PH		IARM Fe174PH-18	316 L		CZ SL-2A
1.7160		ECRM 194-1D	17-4PH		SRM C2400	316 L		IARM 163E
1.8550		ECRM 129-3D	17-7PH		13X PH17700	316 L		IARM Fe316L-23
1.8519		HRT FE2010-N	17-7PH 25(preceeded 17025)		BS 192	316 L		SRM 1155A
1005	17034	BS 1005	17-7PH 25(preceeded 17025)		BS 192A	316 L		SS 466/2
1005		DSZU C040a	17-7PH		IARM Fe177PH-18	316 MOD		TL 2002
1005		ECRM 064-2D	182FM		BS 150	316 Ti		IRSID 1821
1005		SRM 1765	18Cr2Ni12Mn		CT ISO035A	316 Ti		PV 112/1
1005		SRM 1766	201		BS 191	316 Ti		VS LG72
1005		SS 111/1	201		SRM 1297	317 L	17034	BS 317L
1006		IRSID 1670	20Cb3		BS 187A	317 L	25(pre-17025)	BS 9941
1008	17034	BS XCAS	20Cb3		CT 20 Cb-3	317 L	25(pre-17025)	BS 9942
1008		ECRM 057-2D	20MoCr4		ECRM 197-1D	317 L		IARM 153C
1009	17034	BS 1009	2101		IARM 292A	318	17034	BS 2205A
1009 + Al	17034	BS XCCS-2	21Cr6Ni9Mn		CT ISO129A	321		13X 32100
100C6		IRSID 1747	2205		13x NSA9	321	17034	BS 85D
1010		IMZ 111	2205	17034	BS 2205A	321	17034	BS 321D
1011		IMZ 73	2205		IARM 212D	321		IARM 61
1012, 1013	17034	IMZ 71A	2205		HRT FE2000-H	321		IARM 6J
1016		BS 1016	2205		IARM Fe2205-18	321		SRM 1171
1016		BS 1016A	2304		IARM 317A	321		SS 465/1
1016		BS 1016B	2507	17034	BS 2507	321 - Ti		IMZ 152
1017		IMZ 112B	2507		IARM 301B	32750		13X NSA13
1017		IRSID 1664	2507		IARM Fe2507-21	3310	17034	BS 3310
1018		12X 10180C	253 MA	25(pre-17025)	BS 253	347		13X 34700
1018		12X 10180D	253 MA		IARM 316A	347		BS 347A
1018	17034	BS 1018	254 SMO	17034	BS 254	347		BS 347B
1018	17034	BS 1018A	254 SMO		IARM Fe254SMO-21	347	17034	BS 347C
1018		ECRM 087-1D	254 SMO		NILAB 501HAD	347		IARM 8G
1018		IARM 28K	255, Duplex		IARM 239B	347		IARM 8H
1020	17025	BS 1020	255, Duplex		IARM 239C	347		IARM 8i
1020		BS 1020A	300M	17034	BS 300A	347 H		BS 87F
1020		BS 1020B	300M		BS 300B	348		SRM 1172
1020		BS 57F	300M		IARM 340A	355	17025	BS 355
1020		IARM Fe1020-18	300M		IARM Fe300M-22	355		IARM 335A
1023		IMZ 112A	301		IARM 289A	35MV7		IRSID 1750
1026	17034	BS 1026A	301		IARM 289B	405		SRM 1295
1026		IARM 359A	301		IRSID 1819	408		13X 40800A
1030	17025	BS 1030	302		IARM 241D	409		13X 40900
1030	17034	BS 1030A	302 HQ		IARM 234C	409		13X 40930
1030		IARM 209D	303		13X 30300	409		IARM Fe409-20
1033		IRSID 1663	303	17025	BS 303	409 + Cr		NCS HS20743
1035	17034	BS 1035	303		CT 303	410		13X 41008
1035		IARM 360A	303		CZ SP-1A	410	25(pre-17025)	BS 0021
1039		IRSID 1637	303		IARM Fe303-18	410, F6NM	25(pre-17025)	BS 0022
1040	17034	BS 1040	303 Se		IARM 253A	410	17034	BS 410C
1040		IARM 210D	303 Se		IARM 253B	410		CT 410
1040		IRSID 1657	304 H		13X NSB1	410		IARM Fe410-18
1042		IRSID 1656	304 H + Ca	17034	BS CA304-4	410 + Mo		ECRM 296-1D
1042		NM EN-8	304 H		CT 304	410 + Mo		IMZ 161
1043		IRSID 1652	304 H		IARM Fe304H-18	410 H		13X 41001
1045	17034	BS 1045	304 H		SS 468/1	4130	17034	BS 4130A
1045		BS 56E	304 L		13X 30403	4130		IARM 143F
1045		IARM 200D	304 L	17034	BS 304C	4130		SRM 1225
1045		IPT 503	304 L		IARM 162D	4130 H		IPT 501
1050		IARM Fe1050-18	304 L		IARM Fe304L-22	4140	25(pre-17025)	12X 41400
1060		IARM 373A	304 L		ECRM 287-1D	4140		BS 1962
1069		ECRM 059-2D	304 L		ECRM 292-1D	4140	17034	BS 4140C
1078		ECRM 056-2D	304 L		IARM 162D	4140		IARM 30H
1078		SRM 1224	304 L		PV 111/1	4140		IARM 30J
1080	17034	BS 54J	304 L		TL 2003D	4140		IARM Fe4140-19
1090		SS 602/2	304 L		SS 463/1	4140 Bi		BS 4140A
1095		BS 64C	305		ECRM 297-1D	4140 Bi		BS 4140B
1095		SRM 1227	306		13X 30600A	4140MOD	17025	BS 70B
1117	25(preceeded 17025)	BS 3993	308		DSZU C017	4140MOD	17034	BS 70C
1117		BS 65C	309		BS 82E	4150 Bi & S		BS 4150MOD
1117		IARM 29E	309	17034	BS 309	4150 S	17034	BS 4150MOD-A
111L7	17025	BS 75F	309		IARM Fe309-18	4150 S	17034	BS 42
111L7	17025	BS 75G	310		13X 31008	415		13X 41500A
1118		IARM 307A	310		BS 83G	415		IARM Fe415-21
1118		IARM 307B	310		BS 9841	416		BS 90F
1141		BS 66B	310	25(pre-17025)	BS 9842	416	17025	BS 416
1141		BS 1141	310	25(pre-17025)	CZ SL-3A	416		CT 416
1141		IARM 348A	310		IARM 4E	416		IARM Fe416-22
1144	17025	BS 1144A	310		IARM 4F	416		SRM 1223
1144		IARM 199C	310		IARM 4G	416 H		13X 41600
1144		IARM Fe1144-22	310		SS 464/1	416 Se		BS 151
1215		BS 66K	3115		BS XCCT	418		IARM Fe418-18
1215	17025	BS 66L				41CAD7		IRSID 1749
1215		IARM Fe1215-18				41L40	17025	BS 70B
12L14		BS 74B				41L50	17025	BS 72B
12L14	17025	BS 74C				42		CT ISO138A
12L14	17034	BS 74D				42		CT ISO139A
12Mn18Cr		BS 193				42CrMo4		PV 101/1
1345		BS XCCV				420		BS 98
13-8PH		13X PH13800				420	17034	BS 420
13-8PH		BS 184A				420		BS SS4951
13-8PH		IARM 21D				420		BS SS4952
1429		ECRM 058-2D				420		ECRM 272-1D
1513		IMZ 76				420		IARM 154C
1526 MOD		SRM 1269				420		SS 469
1541		IARM 349A				420 F		BS 152
1541		IPT 504				420 F S		IARM 352A
1541		IRSID 1648				422		13X 42200
1544		IRSID 1644				422		BS 97
15-5PH		BS 185A				422	17025	BS 422
15-5PH		BS 9621				422	17034	BS 422A
15-5PH		BS 9622				422		IARM Fe422-22
						430		BS 91E
						430	17034	BS 430

Please use the Adobe Acrobat
“search” function to find the
complete chemistry of these
samples listed within the
catalog.

ALLOY	ISO?	NUMBER	ALLOY	ISO?	NUMBER	ALLOY	ISO?	NUMBER
430		IARM 11D	A-36		BS 1018	HY 80		SRM 1286
430		NCS HS20742	A-36		BS 1020	Hy-Tuff		IARM 342A
430 F		BS 153	A-36		BS LF2B	Invar		14X 93603
430 F		BS 154	A-36		IARM 213C	Invar-36	17034	BS 186B
430 F S		IARM 355A	A-36		IARM 213D	Invar-36 + Se		BS 186A
431	17025	BS 431	A-485-1		BS A485-1	Invar-36 + Se		IARM 24B
431	17034	BS 431A	A-6		BS 40B	Invar 36 + Se		IARM FeINVR36-22
4130	17025	BS 4130	A-6		IARM 40B	Invar 42		14X 94100
4130	17034	BS 4130A	A-6		IARM 40C	ISO 898-1		SS 457/2
431		BS 92B	A615-75		IARM 378A	Kovar	17025	BS 160A
431		IARM 12C	A706-60		IARM 380A	Kovar	17034	BS 160B
431		HRT FE2010-H	A706-60		IARM 380B	Kovar		IARM 98B
431		SRM 1219	A706-80		IARM 381A	Kovar		IARM FeKovar-18
4320		BS 3961	Aermet 100		CT ISO045A	L-6	17025	BS 39B
4320	17034	BS 4320	Aermet 100		IARM 242A	L-6		IARM FeL6-18
4330 MOD	17034	BS 4330MOD	Aermet 100		IARM FeA100-18	LDX2101		13X 32101
4330 MOD		IARM 330B	AL6XN	17025	BS 189A	LF-2		BS 2971
4340	17025	BS 4340	AL6XN		IARM 157D	LF-2	17025	BS LF2C
4340	17025	BS 4340A	C-.5Mo	17034	BS 3952	LF-2		SS 601/2
4340	17034	BS 4340B	C-.5Mo		IARM 229B	LF-3		BS LF3
4340		IARM 31G	C-250		IARM 308A	LF-3		BS LF3A
4340		IARM Fe4340-22	C-350		IARM 309A	M-1		BS TML
440 C		13X 44004	CA6NM		HRT FE2009-H	M-1		CT M1
440 C		BS 93E	CA6NM		IARM 327A	M-1		IARM 304A
440 C	17025	BS 93F	CD3MN		ECRM 298-2D	M-1		IARM FeM1-18
440 C		IARM 13D	CD4MCU	17034	BS CD4MCU	M-10		CT M10
440 F		BS 155	CD4MCU	17034	BS CD4MCU-A	M-10		IARM 324A
440 F Se		BS 156	CD6MN		V5 LG58	M-152		13X 64152
440 F Se		IARM 353A	CF-3		IRSID 1820	M-152		IARM 291A
446		BS 94C	CF3M		ECRM 284-3D	M-2		BS 32D
450		BS 95A	CLA6		IARM 169B	M-2		CT M2
450	17034	BS 450	CLA7		IARM 170B	M-2		IARM 44C
450	25 (pre-17025)	BS 9811	CLA11		IARM 180A	M-2		IARM FeM2-18
450	25 (pre-17025)	BS 9812	CLA5		IARM 168A	M-2		SRM 1157
450		IARM 15C	CLA9		IARM 172A	M-35		IARM 320A
450		CT 450	CPM15V	17025	BS PM15	M-4		IARM 251A
455		13X 45500	CPM15V		BS PM15A	M-4		IARM FeM4-18
455		BS 96A	CPM15V		BS PM15B	M-42		SS 487/1
455		BS SS1962	CPM15V		IARM Fe15V-18	M-47	17025	BS M-47
455		CT 455	D-2		BS 37E	M-50	17025	BS M-50
455		IARM 16C	D-2		BS 37G	M-50		IARM 306B
455		IARM Fe455-22	D-2		BS 37H	M-65		IARM FeM62-18
4615	17034	BS 3962	D-2		CT D2	M-7		CT M7
4620		BS 4620	D-2		IARM 41D	Maraging 250	17034	BS M250
4620	17034	BS 51F	D-6	17025	BS D-6	Maraging 250		CT 250
4620		IARM 33D	D-6	17034	BS D-6A	Maraging 250		ECRM 285-2
465		13X 46500	D6-AC		IARM 299A	Maraging 250		IARM FeC250-21
465		IARM 354A	DP1080		IARM DP1080-18	Maraging 300	25 (pre17025)	BS 161A
465		CT ISO123A	Duplex		13X NSA9	Maraging 300	17034	BS 161B
4820	17025	BS 4820A	Duplex	17034	BS 2205A	Maraging 300		CT 300
4820	17034	BS 4820B	Duplex		IMZ 163A	Maraging 300		IARM 99D
4820		IARM 155F	Duplex		IMZ 164	Mold Steel	17025	BS PP20
4820		IARM Fe4820-18	Duplex		TL 2001	NIT 135M		IARM 305B
5140H		IARM Fe5140H-18	E52100	17034	BS E52100	Nitriding 135G		BS 68B
5160		IMZ 116	E52100		IARM 49E	Nitriding 135G	17025	BS 68E
6150	17034	BS 43A	E52100 Bi		BS 53MOD	Nitronic 40		13X NSC6
6150		BS 4941	Elect. / Magnetic		SRM 1159	Nitronic 40		BS 190
6150		IARM 34C	Electrolytic		SRM 1265a	Nitronic 50		IARM FeN40-18
6150		IARM Fe6150-22	ER321		13X 32180A	Nitronic 50		BS 180A
630		CT 630	F-1		IARM FeF1-21	Nitronic 50	17034	BS 180B
6418	17034	BS 6418	F-1		RM Fe 2	Nitronic 50		IARM 17D
6418		BS 69B	F-11		BS 45A	Nitronic 50		IARM FeN50-18
6526		BS 9-4-30	F-11	17034	BS 45B	Nitronic 60	17025	BS 181B
709		CT X67975	F-11	17034	BS 45C	Nitronic 60		IARM 18D
8620		12X 86200-21	F-11		IARM 35L	NMS 100		IARM 214A
8620		BS 1931	F-11		IARM FeF11-21	NMS 140		IARM 295A
8620 + Bi		BS 8620A	F-2		CT X27081	O-1	17025	BS 35D
8620	17034	BS 8620G	F-22	17034	BS 46B	O-1		CT O1
8620		IARM Fe8620-18	F-22 25 (preceeded 17025)		BS 1982	O-2		CZ LA-4C
8620		IPT 502	F-22		IARM 36C	O-6	17025	BS 41
86L20	25 (preceeded 17025)	BS 73B	F-22		SRM 1270	O-6 25 (preceeded 17025)		BS 41A
86L20	17034	BS 73C	F-22		SRM 1270A	O-6		IARM 45A
86L20	17034	BS 73D	F-22 + Cr		HRT FE2009-N	O-6		IARM 45B
8630	17034	BS 8630	F-5		BS 47A	P-20 MOD	17034	BS 55H
8740		BS 67B	F-5		BS 47B	P-20 + Al		BS 68C
8740	17034	BS 8740	F-5		IARM 37C	RA330		BS 86F
8740		IARM 252C	F-51	17034	BS 2205A	Railroad Steel	17034	BS 54H
8740		IARM 252D	F-9	17034	BS 48B	Railroad Steel	17034	BS 54J
8740		IARM 252E	F-9		IARM FeF9-18	S-1		BS 33D
8740		IARM 252F	F-91		13X 90901	S-1		BS 33E
8822		BS 8822	F-91	17025	BS 9905A	S-1		IARM 46B
8822	17034	BS 8822A	F-91		HRT FE2003-H	S-1 MOD	17034	BS 33F
904L		ECRM 295-1D	F-91		IARM Fe91-18	S-5		BS 38C
904L		IARM Fe904L-22	Ferrallium 255		BS 179A	S-5		BS TS-5
9310		BS 58C	Ferrallium 255	17025	BS 179B	S-5		IARM 47B
9310		BS 58D	Ferrallium 255	17025	BS 179C	S-7		BS TS7
9310		BS 58E	F6NM 25 (preceeded 17025)		BS 0022	S-7	17034	BS TS-7A
9310	17034	BS 9310	Greek Ascoloy		BS 183A	S-7		IARM 259A
9310		IARM FeE9310-18	Greek Ascoloy	17034	BS 183B	S-7		IARM FeS7-18
9325	17034	BS 9325A	Greek Ascoloy	17034	BS 183C	S-7		SRM 1772
9325	17034	BS 9325B	Greek Ascoloy		IARM 20C	S42027		13X 42027A
9-4-30		IARM 341A	H-10		BS 49	SA213-T22		IMZ 159
A-10		BS A-10	H-11		BS TH11	SA213-T22		IMZ 160
A-11		BS 10V	H-11		ECRM 276-2D	SA213-T22		IMZ 169
A-11	17025	BS A-11	H-11		IARM 255A	SAE G2500		BS 20E
A-106 Gr B		SRM 1228	H-11		IARM 255B	STA 361		IARM 268B
A-193 B16		BS 4942	H-11		IMZ 173	T-1	17025	BS 30D
A-193 B16	17025	BS 4942A	H-12		BS TH12	T-1		IARM FeT1-18
A-2		BS 36C	H-13		BS 34D	T-4		IARM 281A
A-2		BS 36D	H-13	17034	BS H-13A	T-15	17034	BS TS15
A-2		BS 36E	H-13		CT H13	T23		IARM FeT23-18
A-2		CT A2	H-13		IARM 42C	VM12		IMZ 196
A-2		IARM 39B	H-13		IMZ 174	W-5		14X 72305
A-2		IARM 39C	H-19	17025	BS H-19	Z30C13		IRSID 1825
A-242		IPT 500A	HC 250+v		SRM C1290	Zeron 100, Duplex		13X NSA8
A-286	17025	BS 188B	High Perm		CT ISO124A	Zeron 100, Duplex		IARM FeZ100-18
A-286		IARM 26D	High Perm		CT ISO136A			
A-286		SRM 1230	High Perm 49		CT ISO141A			
A-36		BS 1016	HSLA 100		SRM 1271			
A-36		BS 1016	HY 130		SRM 1226			

CARBON STEEL SPECIFICATIONS

Number	C	Mn	P	S
1005	<0.06	<0.35	<0.03	<0.05
1006	<0.08	0.25-0.40	<0.03	<0.05
1008	<0.10	0.30-0.50	<0.03	<0.05
1009	<0.15	<0.60	<0.03	<0.05
1010	0.08-0.13	0.30-0.60	<0.03	<0.05
1011	0.09-0.14	0.60-0.90	<0.03	<0.05
1012	0.10-0.15	0.30-0.60	<0.03	<0.05
1013	0.11-0.16	0.50-0.80	<0.03	<0.05
1015	0.13-0.18	0.30-0.60	<0.03	<0.05
1016	0.13-0.18	0.60-0.90	<0.03	<0.05
1017	0.15-0.20	0.30-0.60	<0.03	<0.05
1018	0.15-0.20	0.60-0.90	<0.03	<0.05
1019	0.15-0.20	0.70-1.00	<0.03	<0.05
1020	0.18-0.23	0.30-0.60	<0.03	<0.05
1021	0.18-0.23	0.60-0.90	<0.03	<0.05
1022	0.18-0.23	0.70-1.00	<0.03	<0.05
1023	0.20-0.25	0.30-0.60	<0.03	<0.05
1025	0.22-0.28	0.30-0.60	<0.03	<0.05
1026	0.22-0.28	0.60-0.90	<0.03	<0.05
1029	0.25-0.31	0.60-0.90	<0.03	<0.05
1030	0.28-0.34	0.60-0.90	<0.03	<0.05
1033	0.29-0.36	0.70-1.00	<0.03	<0.05
1034	0.32-0.38	0.50-0.80	<0.03	<0.05
1035	0.32-0.38	0.60-0.90	<0.03	<0.05
1037	0.32-0.38	0.70-1.00	<0.03	<0.05
1038	0.35-0.42	0.60-0.90	<0.03	<0.05
1039	0.37-0.44	0.70-1.00	<0.03	<0.05
1040	0.37-0.44	0.60-0.90	<0.03	<0.05
1042	0.40-0.47	0.60-0.90	<0.03	<0.05
1043	0.40-0.47	0.70-1.00	<0.03	<0.05
1044	0.43-0.50	0.30-0.60	<0.03	<0.05
1045	0.43-0.50	0.60-0.90	<0.03	<0.05
1046	0.43-0.50	0.70-1.00	<0.03	<0.05
1049	0.46-0.53	0.60-0.90	<0.03	<0.05
1050	0.48-0.55	0.60-0.90	<0.03	<0.05
1053	0.48-0.55	0.70-1.00	<0.03	<0.05
1055	0.50-0.60	0.60-0.90	<0.03	<0.05
1059	0.55-0.65	0.50-0.80	<0.03	<0.05
1060	0.55-0.65	0.60-0.90	<0.03	<0.05
1064	0.60-0.70	0.50-0.80	<0.03	<0.05
1065	0.60-0.70	0.60-0.90	<0.03	<0.05
1069	0.65-0.75	0.40-0.70	<0.03	<0.05
1070	0.65-0.75	0.60-0.90	<0.03	<0.05
1074	0.70-0.80	0.50-0.80	<0.03	<0.05
1078	0.72-0.85	0.30-0.60	<0.03	<0.05
1080	0.75-0.88	0.60-0.90	<0.03	<0.05
1084	0.83-0.93	0.60-0.90	<0.03	<0.05
1085	0.80-0.94	0.70-1.00	<0.03	<0.05
1086	0.80-0.93	0.30-0.50	<0.03	<0.05
1090	0.85-0.98	0.60-0.90	<0.03	<0.05
1095	0.90-1.03	0.30-0.50	<0.03	<0.05
Number	C	Mn	P	S

CARBON STEEL SPECIFICATIONS

Number	C	Mn	P	S	Si
1513	0.10-0.16	1.10-1.40	<0.03	<0.05	.
1522	0.18-0.24	1.10-1.40	<0.04	<0.05	.
1524	0.19-0.25	1.35-1.65	<0.04	<0.05	.
1526	0.22-0.29	1.10-1.40	<0.04	<0.05	.
1527	0.22-0.29	1.20-1.50	<0.04	<0.05	.
1533	0.30-0.37	1.10-1.40	<0.04	<0.05	.
1534	0.30-0.37	1.20-1.50	<0.04	<0.05	.
1541	0.36-0.44	1.35-1.65	<0.04	<0.05	.
1544	0.40-0.47	0.80-1.10	<0.04	<0.05	.
1545	0.43-0.50	0.80-1.10	<0.04	<0.05	.
1546	0.44-0.52	1.00-1.30	<0.04	<0.05	.
1548	0.44-0.52	1.10-1.40	<0.04	<0.05	.
1552	0.47-0.55	1.20-1.50	<0.04	<0.05	.
1553	0.48-0.55	0.80-1.10	<0.04	<0.05	.
1566	0.60-0.70	0.85-1.15	<0.04	<0.05	.
1570	0.65-0.75	0.80-1.10	<0.04	<0.05	.
1580	0.75-0.88	0.80-1.10	<0.04	<0.05	.
1590	0.85-0.98	0.80-1.10	<0.04	<0.05	.
LF2	<0.30	0.60-1.35	<0.035	<0.04	0.15-0.30
Number	C	Mn	P	S	Si

RESULFURIZED STEEL SPECIFICATIONS

Number	C	Mn	P	S
1108	0.08-0.13	0.50-0.80	<0.04	0.08-0.13
1109	0.08-0.13	0.60-0.90	<0.04	0.08-0.13
1110	0.08-0.13	0.30-0.60	<0.04	0.08-0.13
1116	0.14-0.20	1.10-1.40	<0.04	0.16-0.23
1117	0.14-0.20	1.00-1.30	<0.04	0.08-0.13
1118	0.14-0.20	1.30-1.60	<0.04	0.08-0.13
1119	0.14-0.20	1.00-1.30	<0.04	0.24-0.33
1123	0.20-0.27	1.20-1.50	<0.04	0.06-0.09
1132	0.27-0.34	1.35-1.65	<0.04	0.09-0.13
1137	0.32-0.39	1.35-1.65	<0.03	0.08-0.13
1139	0.35-0.43	1.35-1.65	<0.04	0.13-0.20
1140	0.37-0.44	0.70-1.00	<0.03	0.08-0.13
1141	0.37-0.45	1.35-1.65	<0.03	0.08-0.13
1144	0.40-0.48	1.35-1.65	<0.03	0.24-0.33
1145	0.41-0.49	0.70-1.00	<0.04	0.08-0.13
1146	0.42-0.49	0.70-1.00	<0.04	0.08-0.13
1151	0.48-0.55	0.70-1.00	<0.04	0.08-0.13
1152	0.48-0.55	0.70-1.00	<0.04	0.06-0.09
1211	<0.13	0.60-0.90	0.07-0.12	0.10-0.15
1212	<0.13	0.70-1.00	0.07-0.12	0.16-0.23
1213	<0.13	0.70-1.00	0.07-0.12	0.24-0.33
1215	<0.09	0.75-1.05	0.04-0.09	0.26-0.35
Number	C	Mn	P	S

These are specifications, not
samples for sale.

LOW ALLOY STEEL SPECIFICATIONS

Number	C	Mn	P	S	Si	Ni	Cr	Mo	Pb	Other
1330	0.28-0.33	1.60-1.90	<0.035	<0.04	0.15-0.35	.	.	.	.	
1335	0.33-0.38	1.60-1.90	<0.035	<0.04	0.15-0.35	.	.	.	.	
1340	0.38-0.43	1.60-1.90	<0.035	<0.04	0.15-0.35	.	.	.	.	
1345	0.43-0.48	1.60-1.90	<0.035	<0.04	0.15-0.35	.	.	.	.	
3140	0.38-0.43	0.70-0.90	<0.04	<0.04	0.15-0.35	1.10-1.40	0.55-0.75	.	.	
4023	0.20-0.25	0.70-0.90	<0.035	<0.04	0.15-0.35	.	.	0.20-0.30	.	
4027	0.25-0.30	0.70-0.90	<0.035	<0.04	0.15-0.35	.	.	0.20-0.30	.	
4028	0.25-0.30	0.70-0.90	<0.035	0.035-0.050	0.15-0.35	.	.	0.20-0.30	.	
4037	0.35-0.40	0.70-0.90	<0.035	<0.04	0.15-0.35	.	.	0.20-0.30	.	
4047	0.45-0.50	0.70-0.90	<0.035	<0.04	0.15-0.35	.	.	0.20-0.30	.	
4118	0.18-0.23	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.40-0.60	0.08-0.15	.	
4120	0.18-0.23	0.80-1.20	<0.035	<0.04	0.15-0.35	.	0.40-0.60	0.15-0.25	.	
4121	0.18-0.23	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.45-0.65	0.15-0.25	.	
4130	0.28-0.33	0.40-0.60	<0.035	<0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	.	
4135	0.33-0.38	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	.	
4137	0.35-0.40	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	.	
4140	0.38-0.43	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	.	
41L40	0.38-0.43	0.75-1.00	<0.035	0.02-0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	0.15-0.35	
4142	0.40-0.45	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	.	
4145	0.43-0.48	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	.	
4147	0.45-0.50	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	.	
4150	0.48-0.53	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	.	
41L50	0.48-0.53	0.75-1.00	<0.035	0.02-0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	0.15-0.35	
4320	0.17-0.22	0.45-0.65	<0.035	<0.04	0.15-0.35	1.65-2.00	0.40-0.60	0.20-0.30	.	
4340	0.38-0.43	0.60-0.80	<0.035	<0.04	0.15-0.35	1.65-2.00	0.70-0.90	0.20-0.30	.	
4615	0.13-0.18	0.45-0.65	<0.035	<0.04	0.15-0.35	1.65-2.00	.	0.20-0.30	.	
4617	0.15-0.20	0.45-0.65	<0.035	<0.04	0.15-0.35	1.65-2.00	.	0.20-0.30	.	
4620	0.17-0.22	0.45-0.65	<0.035	<0.04	0.15-0.35	1.65-2.00	.	0.20-0.30	.	
4715	0.13-0.18	0.70-0.90	<0.035	<0.04	0.15-0.35	0.70-1.00	0.45-0.65	0.45-0.65	.	
4720	0.17-0.22	0.50-0.70	<0.035	<0.04	0.15-0.35	0.90-1.20	0.35-0.55	0.15-0.25	.	
4815	0.13-0.18	0.40-0.60	<0.035	<0.04	0.15-0.35	3.25-3.75	.	0.20-0.30	.	
4820	0.18-0.23	0.50-0.70	<0.035	<0.04	0.15-0.35	3.25-3.75	.	0.20-0.30	.	
50B46	0.44-0.49	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.20-0.35	.	.	B: 0.0005-0.003
5120	0.17-0.22	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.70-0.90	.	.	
51L20	0.17-0.22	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.70-0.90	.	0.15-0.35	
5130	0.28-0.33	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.80-1.10	.	.	
5132	0.30-0.35	0.60-0.80	<0.035	<0.04	0.15-0.35	.	0.75-1.00	.	.	
5140	0.38-0.43	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.70-0.90	.	.	
5150	0.48-0.53	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.70-0.90	.	.	
5160	0.56-0.64	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.70-0.90	.	.	
51B60	0.56-0.64	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.70-0.90	.	.	B: >0.0005
6150	0.48-0.53	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.80-1.10	.	.	V: >0.15
8615	0.13-0.18	0.70-0.90	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	
8617	0.15-0.20	0.70-0.90	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	
8620	0.18-0.23	0.70-0.90	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	
86L20	0.18-0.21	0.70-0.90	<0.035	0.02-0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	0.15-0.35	
8622	0.20-0.25	0.70-0.90	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	
8630	0.28-0.33	0.70-0.90	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	
8637	0.35-0.40	0.75-1.00	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	
8640	0.38-0.43	0.75-1.00	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	
8645	0.43-0.48	0.75-1.00	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	
8720	0.18-0.23	0.70-0.90	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.20-0.30	.	
8740	0.38-0.43	0.75-1.00	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.20-0.30	.	
8822	0.20-0.25	0.75-1.00	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.30-0.40	.	
9259	0.56-0.64	0.75-1.00	<0.035	<0.04	0.70-1.10	.	0.45-0.65	.	.	
9260	0.56-0.64	0.75-1.00	<0.035	<0.04	1.80-2.20	.	.	.	.	
E4340	0.38-0.43	0.65-0.85	<0.025	<0.025	0.15-0.35	1.65-2.00	0.70-0.90	0.20-0.30	.	
E51100	0.98-1.10	0.25-0.45	<0.025	<0.025	0.15-0.35	.	0.90-1.15	.	.	
E52100	0.98-1.10	0.25-0.45	<0.025	<0.025	0.15-0.35	.	1.30-1.60	.	.	
E9310	0.08-0.13	0.45-0.65	<0.025	<0.025	0.15-0.35	3.00-3.50	1.00-1.40	0.08-0.15	.	
F-11	0.10-0.20	0.30-0.80	<0.04	<0.04	0.50-1.00	.	1.00-1.50	0.44-0.65	.	
F-22	<0.15	0.30-0.60	<0.03	<0.03	<0.50	.	2.00-2.50	0.90-1.10	.	
F-5	<0.15	0.30-0.60	<0.03	<0.03	<0.50	.	4.00-6.00	0.45-0.65	.	
F-9	<0.15	0.30-0.60	<0.03	<0.03	0.50-1.0	.	8.00-10.00	0.90-1.10	.	
F-91	0.08-0.12	0.30-0.60	<0.02	<0.01	0.20-0.50	<0.40	8.00-9.50	0.85-1.05	.	Al: <0.04 N: 0.03-0.07
F-91	continued									
LF2	<0.30	0.60-1.35	<0.035	<0.04	0.15-0.30	.	.	.	.	Nb: 0.06-0.10 V: 0.18-0.25
LF3	<0.20	<0.90	<0.035	<0.04	0.20-0.35	3.25-3.75	.	.	.	
Number	C	Mn	P	S	Si	Ni	Cr	Mo	Pb	Other

These are specifications, not samples for sale.

TOOL STEEL SPECIFICATIONS

* notes optional chemistry

Number	C	Mn	P	S	Si	Ni	Cr	Co	Mo	V	W	Other
A-2	0.95-1.05	<1.00	<0.03	<0.03	<0.50	.	4.75-5.50	.	0.90-1.40	0.15-0.50	.	
A-4	0.95-1.05	1.80-2.20	<0.03	<0.03	<0.50	.	0.90-2.20	.	0.90-1.40	.	.	
A-6	0.65-0.75	1.80-2.50	<0.03	<0.03	<0.50	.	0.90-1.20	.	0.90-1.40	.	.	
A-7	2.00-2.85	<0.80	<0.03	<0.03	<0.50	.	5.00-5.75	.	0.90-1.40	3.90-5.15	0.50-1.50	
A-8	0.50-0.60	<0.50	<0.03	<0.03	0.75-1.10	.	4.75-5.50	.	1.15-1.65	.	1.00-1.50	
A-9	0.45-0.55	<0.50	<0.03	<0.03	0.95-1.15	1.25-1.75	4.75-5.50	.	1.30-1.80	0.80-1.40	.	
A-10	1.25-1.50	1.60-2.10	<0.03	<0.03	1.00-1.50	1.55-2.05	.	.	1.25-1.75	.	.	
A-11	2.45	0.50	.	.	0.90	.	5.25	.	1.30	9.75	.	
D-2	1.40-1.60	<0.60	<0.03	<0.03	<0.60	.	11.00-13.00	<1.00	0.70-1.20	<1.10	.	
D-3	2.00-2.35	<0.60	<0.03	<0.03	<0.60	.	11.00-13.50	.	.	<1.00	<1.00	
D-4	2.05-2.40	<0.60	<0.03	<0.03	<0.60	.	11.00-13.00	.	0.70-1.20	<1.00	.	
D-5	1.40-1.60	<0.60	<0.03	<0.03	<0.60	.	11.00-13.00	2.50-3.50	0.70-1.20	<1.00	.	
D-7	2.15-2.50	<0.60	<0.03	<0.03	<0.60	.	11.50-13.50	.	0.70-1.20	3.80-4.40	.	
H-10	0.35-0.45	0.25-0.70	<0.03	<0.03	0.80-1.20	.	3.00-3.75	.	2.00-3.00	0.25-0.75	.	
H-11	0.33-0.43	0.20-0.50	<0.03	<0.03	0.80-1.20	.	4.75-5.50	.	1.10-1.60	0.30-0.60	.	
H-12	0.30-0.40	0.20-0.50	<0.03	<0.03	0.80-1.20	.	4.75-5.50	.	1.25-1.75	<0.50	1.00-1.70	
H-13	0.32-0.45	0.20-0.50	<0.03	<0.03	0.80-1.20	.	4.75-5.50	.	1.10-1.75	0.80-1.20	.	
H-14	0.35-0.45	0.20-0.50	<0.03	<0.03	0.80-1.20	.	4.75-5.50	.	.	.	4.00-5.25	
H-19	0.32-0.45	0.20-0.50	<0.03	<0.03	0.20-0.50	.	4.00-4.75	4.00-4.50	0.30-0.55	1.75-2.20	3.75-4.50	
H-21	0.26-0.36	0.15-0.40	<0.03	<0.03	0.15-0.50	.	3.00-3.75	.	.	0.30-0.60	8.50-10.00	
H-22	0.30-0.40	0.15-0.40	<0.03	<0.03	0.15-0.40	.	1.75-3.75	.	.	0.25-0.50	10.00-11.75	
H-23	0.25-0.35	0.15-0.40	<0.03	<0.03	0.15-0.60	.	11.00-12.75	.	.	0.75-1.25	11.00-12.75	
H-24	0.42-0.53	0.15-0.40	<0.03	<0.03	0.15-0.40	.	2.50-3.50	.	.	0.40-0.60	14.00-16.00	
H-26	0.45-0.55	0.15-0.40	<0.03	<0.03	0.15-0.40	.	3.75-4.50	.	.	0.75-1.25	17.25-19.00	
H-42	0.55-0.70	0.15-0.40	<0.03	<0.03	0.20-0.45	.	3.75-4.50	.	4.50-5.50	1.75-2.20	5.50-6.75	
L-2	0.45-1.00	0.10-0.90	<0.03	<0.03	<0.50	.	0.70-1.20	.	<0.25	0.10-0.30	.	
L-6	0.65-0.75	0.20-0.80	<0.03	<0.03	<0.50	1.25-2.00	0.60-1.20	.	<0.50	.	.	
M-1	0.78-0.88	0.15-0.40	<0.03	<0.03	0.20-0.50	.	3.50-4.00	.	8.20-9.20	1.00-1.35	1.40-2.10	
M-2	0.78-1.05	0.15-0.40	<0.03	<0.03	0.20-0.45	.	3.75-4.50	.	4.50-5.50	1.75-2.20	5.50-6.75	
M-3.1	1.00-1.10	0.15-0.40	<0.03	<0.03	0.20-0.45	.	3.75-4.50	.	4.75-6.50	2.25-2.75	5.00-6.75	
M-3.2	1.15-1.25	0.15-0.40	<0.03	<0.03	0.20-0.45	.	3.75-4.50	.	4.75-6.50	2.75-3.25	5.00-6.75	
M-4	1.25-1.40	0.15-0.40	<0.03	<0.03	0.20-0.45	.	3.75-4.75	.	4.25-5.50	3.75-4.50	5.25-6.50	
M-6	0.75-0.85	0.15-0.40	<0.03	<0.03	0.20-0.45	.	3.75-4.50	11.00-13.00	4.50-5.50	1.30-1.70	3.75-4.75	
M-7	0.97-1.05	0.15-0.40	<0.03	<0.03	0.20-0.55	.	3.50-4.00	.	8.20-9.20	1.75-2.25	1.40-2.10	
M-10	0.84-1.05	0.10-0.40	<0.03	<0.03	0.20-0.45	.	3.75-4.50	.	7.75-8.50	1.80-2.20	.	
M-30	0.75-0.85	0.15-0.40	<0.03	<0.03	0.20-0.45	.	3.50-4.25	4.50-5.50	7.75-9.00	1.00-1.40	1.30-2.30	
M-33	0.85-0.92	0.15-0.40	<0.03	<0.03	0.25-0.55	.	3.50-4.00	7.75-8.75	9.00-10.00	1.00-1.35	1.30-2.10	
M-34	0.85-0.92	0.15-0.40	<0.03	<0.03	0.20-0.45	.	3.50-4.00	7.75-8.75	7.75-9.20	1.90-2.30	1.40-2.10	
M-36	0.80-0.90	0.15-0.40	<0.03	<0.03	0.20-0.45	.	3.75-4.50	7.75-8.75	4.50-5.50	1.75-2.25	5.50-6.50	
M-41	1.05-1.15	0.20-0.60	<0.03	<0.03	0.15-0.50	.	3.75-4.50	4.75-5.75	3.25-4.25	1.75-2.25	6.25-7.00	
M-42	1.05-1.15	0.15-0.40	<0.03	<0.03	0.15-0.65	.	3.50-4.25	7.75-8.75	9.00-10.00	0.95-1.35	1.15-1.85	
M-46	1.22-1.30	0.20-0.40	<0.03	<0.03	0.40-0.65	.	3.70-4.20	7.80-8.80	8.00-8.50	3.00-3.30	1.90-2.20	
M-48	1.50	.	.	.	.	.	3.75	9.00	5.25	3.10	10.0	
M-52	0.90	.	.	.	.	.	4.00	.	4.00	2.00	1.25	
M-61	1.60	.	.	.	.	.	4.00	.	6.50	5.00	12.0	
M-62	1.30	.	.	.	.	.	3.75	.	10.5	2.00	6.25	
O-1	0.85-1.00	1.00-1.40	<0.03	<0.03	<0.50	.	0.40-0.60	.	.	<0.30	0.40-0.60	
O-2	0.85-0.95	1.40-1.80	<0.03	<0.03	<0.50	.	<0.35	.	<0.30	<0.30	.	
O-6	1.25-1.55	0.30-1.10	<0.03	<0.03	0.55-1.50	.	<0.30	.	0.20-0.30	.	.	
O-7	1.10-1.30	<1.00	<0.03	<0.03	<0.60	.	0.35-0.85	.	<0.30	<0.40	1.00-2.00	
P-20	0.28-0.40	0.60-1.00	<0.03	<0.03	0.20-0.80	.	1.40-2.00	.	0.30-0.55	.	.	
P-21	0.18-0.22	0.20-0.40	<0.03	<0.03	0.20-0.40	4.00-4.25	0.20-0.30	.	.	0.15-0.25	.	Al: 1.05-1.25
P-6	0.05-0.15	0.35-0.70	<0.03	<0.03	0.10-0.40	3.25-3.75	1.25-1.75	.	.	.	.	
S-1	0.40-0.55	0.10-0.40	<0.03	<0.03	0.15-1.20	.	1.00-1.80	.	<0.50	0.15-0.30	1.50-3.00	
S-2	0.40-0.55	0.30-0.50	<0.03	<0.03	0.90-1.20	.	.	.	0.30-0.60	<0.50	.	
S-4	0.50-0.65	0.60-0.95	<0.03	<0.03	1.75-2.25	.	<0.35	.	.	<0.35	.	
S-5	0.50-0.65	0.60-1.00	<0.03	<0.03	1.75-2.25	.	<0.35	.	0.20-1.35	<0.35	.	
S-6	0.40-0.50	1.20-1.50	<0.03	<0.03	2.00-2.50	.	1.20-1.50	.	0.30-0.50	0.20-0.40	.	
S-7	0.45-0.55	0.20-0.80	<0.03	<0.03	0.20-1.00	.	3.00-3.50	.	1.30-1.80	0.20-0.30*	.	
T-1	0.65-0.80	0.10-0.40	<0.03	<0.03	0.20-0.40	.	3.75-4.50	.	.	0.90-1.30	17.25-18.25	
T-15	1.50-1.60	0.15-0.40	<0.03	<0.03	0.15-0.40	.	3.75-5.00	4.75-5.25	<1.00	4.50-5.25	11.75-13.00	
T-4	0.70-0.80	0.10-0.40	<0.03	<0.03	0.20-0.40	.	3.75-4.50	4.25-5.75	0.40-1.00	0.80-1.20	17.50-19.00	
T-5	0.75-0.85	0.20-0.40	<0.03	<0.03	0.20-0.40	.	3.75-5.00	7.00-9.50	0.50-1.25	1.80-2.40	17.50-19.00	
T-6	0.75-0.85	0.20-0.40	<0.03	<0.03	0.20-0.40	.	4.00-4.75	11.00-13.00	0.40-1.00	1.50-2.10	18.50-21.00	
T-8	0.75-0.85	0.20-0.40	<0.03	<0.03	0.20-0.40	.	3.75-4.50	4.25-5.75	0.40-1.00	1.80-2.40	13.25-14.75	
W-1	0.70-1.50	0.10-0.40	<0.025	<0.025	0.10-0.40	<0.20	<0.15	.	<0.10	<0.10	<0.15	Cu: <0.20
W-2	0.85-1.50	0.10-0.40	<0.03	<0.03	0.10-0.40	<0.20	<0.15	.	<0.10	0.15-0.35	<0.15	Cu: <0.20
W-5	1.05-1.15	0.10-0.40	<0.03	<0.03	0.10-0.40	<0.20	0.40-0.60	.	<0.10	<0.10	<0.15	Cu: <0.20
Number	C	Mn	P	S	Si	Ni	Cr	Co	Mo	V	W	Other

These are specifications, not
samples for sale.

STAINLESS AND HIGH ALLOY STEEL SPECIFICATIONS												* notes optional chemistry
Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	N	Nb	Other
13-8PH	<0.05	<0.20	<0.01	<0.008	<0.10	.	7.50-8.50	12.25-13.25	2.00-2.50	<0.01	.	Al: 0.90-1.35
15-5PH	<0.07	<1.00	<0.04	<0.03	<1.00	2.50-4.50	3.50-5.50	14.00-15.50	.	.	0.15-0.45	
17-4PH	<0.07	<1.00	<0.04	<0.03	<1.00	3.00-5.00	3.00-5.00	15.00-17.50	.	.	0.15-0.45	
201	<0.15	5.5-7.5	<0.060	<0.03	<1.00	.	3.50-5.50	16.00-18.00	.	<0.25	.	
202	<0.15	7.5-10.0	<0.060	<0.03	<1.00	.	4.00-6.00	17.00-19.00	.	<0.25	.	
301	<0.15	<2.00	<0.045	<0.03	<1.00	.	6.00-8.00	16.00-18.00	.	.	.	Zr: <0.60*
302	<0.15	<2.00	<0.045	<0.03	<1.00	.	8.00-10.00	17.00-19.00	.	.	.	
302B	<0.15	<2.00	<0.045	<0.03	2.00-3.00	.	8.00-10.00	17.00-19.00	.	.	.	
303	<0.15	<2.00	<0.20	>0.15	<1.00	.	8.00-10.00	17.00-19.00	<0.60*	.	.	
304	<0.08	<2.00	<0.045	<0.03	<1.00	.	8.00-10.50	18.00-20.00	.	.	.	
304L	<0.03	<2.00	<0.045	<0.03	<1.00	.	8.00-12.00	18.00-20.00	.	.	.	
305	<0.12	<2.00	<0.045	<0.03	<1.00	.	10.00-13.00	17.00-19.00	.	.	.	
308	<0.08	<2.00	<0.045	<0.03	<1.00	.	10.00-12.00	19.00-21.00	.	.	.	
309	<0.20	<2.00	<0.045	<0.03	<1.00	.	12.00-15.00	22.00-24.00	.	.	.	
310	<0.25	<2.00	<0.045	<0.03	<1.50	.	19.00-22.00	24.00-26.00	.	.	.	
314	<0.25	<2.00	<0.045	<0.03	1.50-3.00	.	19.00-22.00	23.00-26.00	.	.	.	
316	<0.08	<2.00	<0.045	<0.03	<1.00	.	10.00-14.00	16.00-18.00	2.00-3.00	.	.	
316	<0.08	<2.00	<0.045	<0.03	<1.00	.	10.00-14.00	16.00-18.00	2.00-3.00	.	.	
316L	<0.03	<2.00	<0.045	<0.03	<1.00	.	10.00-14.00	16.00-18.00	2.00-3.00	.	.	
321	<0.08	<2.00	<0.045	<0.03	<1.00	.	9.00-12.00	17.00-19.00	.	.	.	
347	<0.08	<2.00	<0.045	<0.03	<1.00	.	9.00-13.00	17.00-19.00	.	.	>10xC	Ta: <0.10
348	<0.08	<2.00	<0.045	<0.03	<1.00	.	9.00-13.00	17.00-19.00	.	.	>10xC	
384	<0.08	<2.00	<0.045	<0.03	<1.00	.	17.00-19.00	15.00-17.00	.	.	.	
385	<0.08	<2.00	<0.045	<0.03	<1.00	.	14.00-16.00	11.50-13.50	.	.	.	
403	<0.15	<1.00	<0.04	<0.03	<0.50	.	.	11.50-13.00	.	.	.	
405	<0.08	<1.00	<0.04	<0.03	<1.00	.	.	11.50-14.50	.	.	.	Al: 0.10-0.30 Ti: 6\mtC-0.75
409	<0.08	<1.00	<0.04	<0.01	<1.00	.	<0.50	10.50-11.75	.	.	.	
410	<0.15	<1.00	<0.04	<0.03	<1.00	.	.	11.50-13.50	.	.	.	
414	<0.15	<1.00	<0.04	<0.03	<1.00	.	1.25-2.50	11.50-13.50	.	.	.	
416	<0.15	<1.25	<0.06	>0.15	<1.00	.	.	12.00-14.00	<0.60*	.	.	
420	>0.15	<1.00	<0.04	<0.03	<1.00	.	.	12.00-14.00	.	.	.	V: 0.15-0.30 W: 0.75-1.25
422	0.20-0.25	<1.00	<0.04	<0.03	<0.75	<0.50	0.50-1.00	11.00-12.50	0.75-1.25	.	.	
422	continued											
430	<0.12	<1.00	<0.04	<0.03	<1.00	.	.	16.00-18.00	.	.	.	
430F	<0.12	<1.25	<0.06	>0.15	<1.00	.	.	16.00-18.00	<0.60*	.	.	
431	<0.20	<1.00	<0.04	<0.03	<1.00	.	1.25-2.50	15.00-17.00	.	.	.	
440A	0.60-0.75	<1.00	<0.04	<0.03	<1.00	.	.	16.00-18.00	<0.75	.	.	
440B	0.75-0.95	<1.00	<0.04	<0.03	<1.00	.	.	16.00-18.00	<0.75	.	.	
440C	0.95-1.20	<1.00	<0.04	<0.03	<1.00	.	.	16.00-18.00	<0.75	.	.	
450	<0.05	<1.00	<0.03	<0.03	<1.00	1.25-1.75	5.00-7.00	14.00-16.00	0.50-1.00	.	8\mtC	
455	<0.05	<0.50	<0.04	<0.03	<0.50	1.50-2.50	7.50-9.50	11.00-12.50	<0.50	.	0.10-0.50	Ti: 0.80-1.40
501	>0.10	<1.00	<0.04	<0.03	<1.00	.	.	4.00-6.00	0.40-0.65	.	.	
502	<0.10	<1.00	<0.04	<0.03	<1.00	.	.	4.00-6.00	0.40-0.65	.	.	
Duplex	<0.05	<3.00	<0.035	<0.03	<1.50	<2.50*	4.00-7.00	18.00-25.00	0.20-5.50	<0.40	.	

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	N	Nb	Other
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These are specifications, not samples for sale.