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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	BS 50F	0.0064	0.082	0.0066	0.0031	0.016	0.0088	0.016	0.022	0.0017	0.003	0.0023	0.0042	(0.0026)
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	.
1	VS RG31	0.0035	0.0010	0.0015	.	0.009	0.010	0.0046	0.0016	0.0003	.	0.0007	.	.
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
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	.
2	TH 1045D	0.0023	.	.	0.0043	.	.	.	.	.	.	.	0.0046	.
1	VS RG24/1	0.0022	0.015	0.0027	0.0069	0.017	0.011	0.037	0.037	0.0013	.	0.012	.	.
1	BS LC-6	0.0020	0.469	0.0007	0.0009	0.050	0.0003	0.0057	0.0023	(0.0006)	0.034	0.0021	0.0003	0.0007
1	SRM 1768	0.0010	0.0014	0.0013	0.0003	.	0.0006	0.0014	.	.	0.0024	0.0025	0.002	0.036
1	ECRM 098-1D	0.00051	0.00008	(0.00006)	0.00031	0.00048	.	.	0.00571	0.00085	.	.	0.0024	.
1	ECRM 097-1D	(<0.002)	0.0064	0.0016	0.0022	(<0.01)	0.0020	0.0025	0.0016	(<0.001)	.	0.0037	0.0007	.
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
BS 50F	0.0013	(<0.0002)	(<0.0001)	(<0.0002)	(<0.0003)	0.0010	0.0004	(0.0003)	(<0.0050)	disc 35 mm Ø x -7 mm 17025
CZ LA-0A	(0.0015)	.	.	Sb:(0.0007)	(0.001)	(0.001)	0.001	.	.	disc -37 mm Ø x 25 mm
VS RG31	.	.	.	.	.	.	.	.	.	disc -45 mm Ø x -28mm
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
TL 1669 *	0.0017	0.00038	.	0.00046	0.00013	0.0071	0.0504	(0.0006)	.	disc 38 mm Ø x 25 mm
TH 1045D	.	.	.	.	.	.	.	.	.	disc 40 mm Ø x 40 mm
VS RG24/1	.	.	.	.	.	.	0.0010	.	.	disc -45 mm Ø x -28mm
BS LC-6	(<0.0020)	(0.0004)	(0.00003)	(<0.0010)	(<0.0020)	(<0.0020)	0.0006	(<0.0010)	last	disc 39 mm Ø x -7 or -12 mm 17025
SRM 1768	.	.	.	.	.	.	.	.	.	disc 31 mm Ø x 19 mm
ECRM 098-1D	.	.	.	.	.	.	.	.	.	octagon 35 mm Ø x 25 mm
ECRM 097-1D	0.0051	0.0003	.	.	.	(<0.0025)	.	(<0.001)	.	disc 38 mm Ø x 3, 25, or 30 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

~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)
1008	BS XAAS	0.041	0.430	0.007	0.010	0.045	0.015	0.023	0.020	0.007	0.006	0.005	0.004	0.0037	<0.002	<0.005
1018	BS 2931	0.202	0.75	0.012	0.025	0.23	0.23	0.106	0.154	0.019	0.002	0.007	0.009	0.0119	0.010	0.002
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 3941	0.407	0.802	0.016	0.023	0.257	0.053	0.018	0.069	0.0061	0.0019	0.0036	0.0042	0.0069	0.0019	0.0025
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

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 HS93703-1	0.387	0.381	0.025	0.023	1.08	2.35	0.0057	(0.008)	0.681	0.048	0.028	3.98	0.0047	0.0077
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 HS93703-1	0.032	0.0011	0.0009	0.351	0.0016	(0.0001)	0.014	0.473	0.0090	0.293	0.0031
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)	.	.	.	.	.	0.009
1	ECRM 090-1D	1.05	0.226	0.013	0.0095	0.281	0.006	0.053	0.121	.	.	.	.	.	.	0.003
1	SRM 1227	0.97	0.402	0.014	0.026	0.215	0.006	0.007	0.019	.	.	.	.	.	0.003	0.003
1	SS 602/2	0.94	0.22	0.015	0.031	0.257	(0.06)	(0.02)	0.37	0.096	.	.	.	.	(0.007)	(0.004)
2	BS 64C	0.920	0.42	0.015	0.0024	0.22	0.016	0.038	0.261	(0.005)	.	.	.	.	0.004	0.008
2	HRT FE2014-N	0.91	1.97	0.012	(0.004)	0.24	0.01	0.02	0.35	0.016	.	.	.	.	.	0.01
1	ECRM 056-2D	0.8181	0.5073	0.0103	0.0093	0.2006	0.0129	0.0218	0.0146	0.00024	.	.	.	.	.	0.013
1	SRM 1224	0.75	0.41	0.009	0.039	0.173	0.072	0.054	0.071	0.060	.	.	.	.	0.01	0.013
1	SS 54H *	0.74	0.84	0.033	0.005	0.27	0.047	0.031	0.33	<0.05	.	<0.005	0.0001	0.0003	0.003	0.01
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 3405.01	0.57	0.80	0.037	0.048	0.19	.	0.031	0.081	.	.	.	.	.	.	.
1	SS 435/1	0.52	0.41	0.033	0.031	0.54	.	0.060	0.14	.	.	.	.	.	.	.
1	SS 435/2	0.49	0.39	0.04	0.042	0.32	0.015	0.13	0.18	0.062	.	.	.	(<0.0005)	0.011	0.005
2	BS 56E	0.483	0.72	0.010	0.025	0.24	0.135	0.015	0.021	(0.007)	.	0.0035	.	.	.	.
1	IRSID 1636	0.47	0.78	0.029	0.037	0.40	0.104	0.092	(0.06)	(0.015)	.	.	0.0110	.	0.0890	.
1	SS 459/2	0.467	0.909	0.0482	0.027	0.440	0.345	0.190	0.184	0.056	(0.013)	.	0.038	.	0.038	.
1	BS 56H	0.457	0.772	0.0096	0.0234	0.210	0.299	0.154	0.098	0.0009	.	0.0056	0.0002	0.0012	0.0078	0.0419
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	0.048	(0.022)	0.004	.	0.0051	.	.	.	(0.008)
1	IRSID 1648	0.435	0.810	0.020	(0.07)	0.27	0.104	0.093	0.170	(0.034)	.	0.038	.	.	0.038	(0.028)
1	12X 10400A	0.420	0.754	0.0137	0.0305	0.220	0.140	0.0631	0.139	0.0323	.	0.0068	.	.	.	0.0169
1	NM EN-8	0.42	0.82	0.02	0.02	0.28	0.097	0.068	(0.035)	(0.020)	.	.	.	.	.	(0.009)
1	IRSID 1642	0.418	0.929	0.031	(0.031)	0.311	0.104	0.093	0.490	(0.060)	(0.0555)	.	.	.	.	.
1	IRSID 1647	0.418	0.701	0.019	(0.027)	0.299	(0.104)	0.093	0.490	(0.060)	.	.	.	.	.	.
1	IRSID 1646	0.414	0.701	0.020	0.040	0.386	0.345	0.184	0.493	0.056	.	.	.	.	.	.
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	SS 434/1	0.41	1.49	0.050	0.027	0.31	0.300	0.044	0.055	.	.	.	.	.	.	.
1	IARM 349A	0.41	1.49	0.011	0.025	0.192	0.300	0.178	0.189	0.020	.	0.005	0.0003	0.0015	0.0085	0.059
1	BS 3941	0.407	0.802	0.016	0.023	0.257	0.053	0.018	0.069	0.0019	.	0.0036	(0.0001)	0.0011	0.0042	0.061
1	IRSID 1652	0.406	0.931	(0.017)	0.040	0.386	0.345	0.184	0.493	0.056	(0.0013)	.	0.042	.	.	(0.006)
1	IRSID 1637	0.401	0.940	0.030	0.030	0.378	0.097	0.068	(0.033)	0.022	.	0.042	.	.	.	.
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	0.029	0.265	0.267	0.154	0.154	.	.	.	.	.	.	0.033
1	IRSID 1645	0.384	0.910	0.021	0.030	0.267	0.261	0.184	0.140	0.015	(0.0124)	.	.	.	.	.
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	0.161	0.62	3.06	0.024	(0.019)	.	0.0027	.	0.0106	0.62
1	VS RG30	0.38	0.357	0.010	0.013	0.45	0.241	0.123	0.151	0.0008	.	.	.	.	0.50	0.49
1	BS 1035	0.362	0.758	(0.010)	0.028	0.246	0.241	0.168	0.151	0.0008	.	0.0051	(0.0002)	0.0017	0.0073	0.042
1	IRSID 1655	0.355	1.018	(0.070)	0.040	0.426	0.415	0.168	0.124	(0.004)	.	0.028	.	.	.	(0.043)
1	IRSID 1663	0.353	0.967	0.0090	0.034	0.235	0.180	0.148	0.206	0.037	.	0.028	.	.	.	0.042
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	0.733	0.008	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	0.321	1.682	0.011	0.029	0.260	0.269	0.078	0.124	0.0014	.	0.0055	0.0003	0.0012	0.0069	0.0182
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
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	B	Ca	Co	Mo
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	0.97	0.054	0.0032	0.42	0.188	0.135	1.53	0.88	.	.	.	.	0.071	0.222
1	IRSID 1654	0.270	0.979	0.036	(0.047)	0.354	0.441	0.241	0.328	.	.	0.040	.	.	.	(0.043)
1	SS 434/2	0.27	1.54	0.06	0.014	0.51	0.038	0.038	0.24	.	.	.	.	.	.	.
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	BS 1026	0.260	0.715	0.0171	0.0191	0.268	0.247	0.096	0.163	0.0330	.	0.0100	(0.0002)	0.0017	0.0072	0.0289
1	VS UG94	0.26	0.186	0.0037	0.0026	0.101	0.088	0.178	0.206	0.17	.	.	.	.	.	0.0005
1	VS UG18/6	0.242	0.213	(0.003)	(0.003)	0.20	0.063	0.273	0.237	.	.	.	.	.	.	.
2	HRT FE2016-N	0.23	0.85	0.015	0.011	0.32	0.02	0.15	0.21	0.033	.	.	.	.	.	.
1	BS 1020	0.210	0.568	0.0058	0.0249	0.250	0.184	0.059	0.109	0.0006	.	0.0074	(0.0001)	0.0022	0.0070	0.018
1	IARM 213C	0.201	0.922	0.007	0.025	0.25	0.149	0.068	0.099	0.0019	.	0.0058	0.0003	0.0014	0.0074	0.022
1	IRSID 1664	0.2008	0.472	0.0106	0.0259	0.0616	0.0820	0.0547	0.0707	.	0.0193	0.0115	(0.0002)	(0.0005)	(0.0084)	0.0157
1	VS RG25/1	0.196	0.29	0.019	0.0088	0.100	0.065	0.037	0.060	0.067	.	.	.	.	0.012	0.010
1	BS 1018	0.195	0.79	0.012	0.024	0.237	0.130	0.104	0.177	0.029	.	0.0041	(0.0002)	(0.0004)	0.0058	0.044
1	BS LF2B	0.176	1.05	0.007	0.0067	0.209	0.318	0.115	0.138	0.0287	.	0.0052	(0.0002)	0.0010	0.0071	0.0382
1	IARM 28K	0.174	0.80	0.012	0.027	0.291	0.171	0.0638	0.107	(0.0025)	.	(0.005)	0.0005	(0.0004)	0.0060	0.0210
1	BS 1016	0.172	0.77	0.011	0.030	0.193	0.153	0.107	0.091	0.0200	.	0.0066	(0.0003)	(0.0004)	0.0193	0.040
1	12X 10180C	0.171	0.803	0.0150	0.0200	0.147	0.0500	0.0284	0.0793	0.0198	.	0.0029	.	.	.	0.0047
1	NM 3404.01	0.17	0.66	0.025	0.021	0.19	0.007	0.010	0.010	.	.	.	.	.	.	.
1	12X 10180B	0.169	0.722	0.0101	0.0056	0.114	0.0544	0.0333	0.0451	0.043	.	0.0059	.	.	.	0.0062
2	TL 1000	0.1692	1.4281	0												

CARBON STEEL CONTINUED FROM THE PREVIOUS PAGE

Number	N	Nb	O	Pb	Sb	Sn	Ti	V	W	Zn	Zr	Units
IRSID 1660	0.0146	0.00043	.	0.00239	0.00090	.	.	0.204	.	0.00209	.	37 mm Ø x 30 mm
ECRM 090-1D	.	.	.	.	.	.	.	0.002	.	.	.	38 mm Ø x 25 or 30 mm
SRM 1227	.	.	.	.	.	.	.	(0.001)	.	.	(<0.005)	32 mm Ø x 19 mm
SS 602/2	0.0084	(<0.003)	.	.	.	(0.001)	(0.002)	0.005	.	.	.	44 mm Ø x 19 mm
BS 64C	.	.	.	.	.	.	.	.	.	.	.	44 mm Ø x 19 mm
HRT FE2014-N	0.0052	.	.	.	.	.	.	0.066	.	.	.	~35mm Ø x 20 mm
ECRM 056-2D	.	.	.	.	.	.	.	.	.	.	.	44 mm Ø x 25 or 30 mm
SRM 1224	.	.	.	.	.	.	.	0.002	.	.	.	32 mm Ø x 19 mm
BS 54H *	<0.05	<0.005	<0.005	0.002	.	<0.05	<0.005	0.001	.	*	Provisional Analysis	44 mm Ø x 19 mm
VS RG28	.	0.029	.	.	.	.	0.0041	0.022	0.006	.	.	45 mm Ø x ~28mm
VS RG28/1	.	0.041	.	.	.	.	.	0.022	0.035	0.0041	.	~45 mm Ø x ~28mm
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 or 18 mm
VS UG20/6	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
NM 3405.01	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm
SS 435/1	.	0.039	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
SS 435/2	.	0.13	.	(0.0001)	0.0004	(0.0006)	(0.001)	(<0.002)	.	.	.	38 mm Ø x 19 mm
BS 56E	0.0056	(<0.002)	.	.	.	.	.	.	.	.	.	44 mm Ø x ~7 or 19+ mm
IRSID 1636	.	0.0102	.	0.0044	0.0121	.	.	0.0585	.	.	(0.074)	48 mm Ø x 30 mm
SS 459/2	.	0.0009	0.0025	0.0004	0.0025	0.0124	0.0009	0.0295	0.0007	Ta:0.0011	0.0007	38 mm Ø x ~7 or 19+mm
BS 56H	0.0106	0.0009	0.0025	0.0004	0.0025	0.0124	0.0009	0.0295	0.0007	Ta:0.0011	0.0007	38 mm Ø x ~7 or 19+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 ~28mm
IRSID 1657	.	.	.	.	.	.	.	(0.001)	.	.	.	42 mm Ø x 30 mm
IRSID 1648	.	.	.	.	.	0.033	.	.	.	.	.	40 mm Ø x 28 mm
12X 10400A	0.0133	.	.	.	.	0.0127	.	.	.	0.0033	.	40 mm Ø x ~15 mm
NM EN-8	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm
IRSID 1642	.	.	.	.	.	.	.	(0.002)	.	.	.	45 mm Ø x 30 mm
IRSID 1647	.	.	.	.	.	.	.	.	.	.	.	41 mm Ø x 30 mm
IRSID 1646	.	.	.	.	.	.	.	.	.	.	.	42 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
SS 434/1	.	0.078	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 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
BS 3941	0.0069	0.033	0.0055	0.0010	0.0005	0.0019	0.0017	0.0025	(0.0004)	.	(0.0003)	41 mm Ø x ~7 or 19+ mm
IRSID 1652	.	.	.	.	.	0.030	.	.	.	.	.	45 mm Ø x 30 mm
IRSID 1637	.	.	.	.	.	.	.	(0.002)	.	.	.	45 mm Ø x 30 mm
SS 605/2	.	.	.	.	.	.	.	(0.001)	.	.	(0.12)	44 mm Ø x 19 mm
IRSID 1644	.	.	.	.	.	.	.	.	.	.	.	45 mm Ø x 30 mm
ECRM 084-1D	.	.	.	.	.	0.023	.	.	.	.	.	38 mm Ø x 25 or 30 mm
IRSID 1645	.	.	.	.	.	.	.	.	.	.	.	45 mm Ø x 30 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
VS RG30	.	0.139	.	.	.	.	.	0.63	0.91	.	.	~45 mm Ø x ~28mm
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
IRSID 1655	.	.	.	.	.	0.46	.	.	.	.	.	40 mm Ø x 34 mm
IRSID 1663	.	.	.	.	.	0.0143	0.051	.	.	.	.	44 mm Ø x 30 mm
VS UG90	0.015	.	.	.	0.0011	.	0.039	.	.	.	.	~47 mm Ø x ~30 mm
VS UG19/6	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
IARM 360A	0.0102	0.0015	0.004	(0.001)	0.0023	0.010	0.0010	0.039	(0.001)	(0.003)	(0.001)	31 mm Ø x 2 or 18 mm
BS 1030	0.0107	(0.0004)	0.005	0.0005	0.0024	0.0114	0.0005	0.031	(0.012)	(0.002)	(0.0002)	38 mm Ø x ~7 or 19+ mm
IARM 209D	0.0107	0.0014	0.005	0.001	0.004	0.012	0.0011	0.042	(0.002)	(0.003)	.	31 mm Ø x 2 or 18 mm
Number	N	Nb	O	Pb	Sb	Sn	Ti	V	W	Zn	Zr	Units
IRSID 1653	.	.	.	.	.	0.066	.	.	.	.	.	40 mm Ø x 34 mm
VS RG27	.	.	.	.	.	.	.	0.064	0.170	.	.	~45 mm Ø x ~28mm
IRSID 1654	.	.	.	.	.	0.030	.	.	.	.	.	40 mm Ø x 34 mm
SS 434/2	0.010	0.038	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
IARM 359A	0.0094	0.002	0.0044	(0.001)	(0.002)	0.0100	0.0009	0.027	(0.001)	.	(0.001)	31 mm Ø x 2 or 18 mm
BS 1026	0.0083	(0.0004)	0.0031	(0.0002)	0.0019	0.0112	(0.0004)	0.0016	0.0021	.	(0.0002)	38 mm Ø x ~7 or 19+ mm
VS UG94	.	.	.	.	.	.	0.053	(0.001)	.	.	.	~40 mm Ø x ~28 mm
VS UG18/6	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
HRT FE2016-N	0.0055	(0.0003)	0.0046	(0.0002)	(0.0018)	0.0090	(0.0005)	0.0363	(0.0004)	.	(0.0005)	35 mm Ø x 20 mm
BS 1020	0.0109	(0.0003)	0.0046	(0.0002)	(0.0018)	0.0090	(0.0005)	0.0363	(0.0004)	.	(0.0005)	44 mm Ø x ~7 or 19+ mm
IARM 213C	0.0116	0.0011	0.0042	0.0011	0.002	0.0081	0.0010	0.035	(0.002)	(0.006)	(0.0004)	31 mm Ø x 2 mm
IRSID 1664	0.0072	(0.0002)	.	0.0002	0.0012	0.0108	0.0013	(0.0005)	<0.002	(0.0007)	(0.0001)	37 mm Ø x 30 mm
VS RG25/1	.	0.016	.	.	.	.	0.055	0.0110	.	.	.	~45 mm Ø x ~28mm
BS 1018	0.0079	(0.0006)	0.0014	(0.0006)	(0.001)	0.0099	0.0009	0.0009	0.0014	Fe:98.2	(0.001)	38 mm Ø x ~7 or 19+ mm
BS 1028	0.0078	(0.0003)	0.0024	(0.0001)	0.0018	0.0092	0.0009	0.0300	0.0027	17025	Fe:97.9	38 mm Ø x ~7 or 19+ mm
IARM 28K	(0.008)	0.0017	(0.005)	.	.	0.0075	(0.0015)	(0.0014)	.	.	.	31 mm Ø x 2 or 18
BS 1016	0.0113	(0.0009)	(0.003)	(0.004)	Fe:98.4	0.013	0.0010	0.0011	(0.0013)	17025	(0.001)	Hexagon ~60 mm Ø x 19+ mm
12X 10180C	0.0052	.	.	.	.	0.0024	.	.	.	0.0005	.	~40 mm Ø x ~15 mm
NM 3404.01	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm last
12X 10180B	0.0071	.	.	.	.	0.0065	.	.	.	0.0079	.	~40 mm Ø x ~15 mm
TL 1000	(0.0093)	0.0293	.	Mg:(0.00005)	.	(0.00106)	0.0011	(0.0033)	(0.0002)	.	.	36 mm Ø x 20 mm
VS RG25	.	.	.	.	.	.	0.039	.	.	.	.	~45 mm Ø x ~28mm
VS UG124	0.0072	.	.	.	.	.	.	0.0043	.	.	.	~45 mm Ø x ~28mm
VS UG109	.	.	.	.	.	.	0.071	.	.	.	.	~45 mm Ø x ~25 mm
BS 2931B	0.0076	0.0011	0.0021	(0.00004)	0.0012	0.0062	0.0008	0.0014	0.0007	Mg:0.0001	0.0005	38 mm Ø x ~2mm 17025 last
IARM 213D	(0.008)	(0.0012)	(0.01)	.	(0.0032)	0.0147	0.0011	0.0010	(0.003)	(0.002)	(0.0015)	31 mm Ø x 2 or 18
SS 456/2	.	0.0057	.	0.0189	(0.0172)	.	.	0.0221	.	.	(0.014)	38 mm Ø x 19 mm
DSZU C041	0.0046	0.0017	.	.	.	0.0038	0.0019	0.003	(0.003)	.	.	40 mm Ø x 25 mm
SS 432/1	.	<0.002	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
SS 601/2	.	.	.	.	.	.	.	(0.002)	.	.	(<0.005)	44 mm Ø x 19 mm
VS UG93	.	.	.	.	.	.	0.075	0.0008	.	.	.	~40 mm Ø x ~28 mm
VS UG17/6	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
SS 433/2	.	0.06	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
IRSID 1661	.	.	.	(0.0005)	(0.0085)	.	.	.	.	.	.	40 mm x 42 mm x 30 mm
VS UG125	0.0112	.	.	.	.	.	.	0.035	.	.	.	~45 mm Ø x ~28mm
VS UG108	.	.	.	.	.	.	0.071	.	0.074	.	.	~45 mm Ø x ~25 mm
SRM 1228	.	.	.	.	.	.	.	<0.001	.	.	.	32 mm Ø x 19 mm
ECRM 057-2D	0.0023	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 25 or 30 mm
BS XCCS-1	0.0052	(0.001)	.	(0.0006)	(0.0005)	0.0002	0.0015	0.0012	(0.003)	.	0.0006	~40 mm Ø x ~30 mm 17025
VS RG26/1	.	0.0056	.	.	.	.	0.100	0.0113	.	.	.	~45 mm Ø x ~28mm
NM PC-1	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm
ECRM 083-2D	0.00157	.	.	.	.	.	.	.	.	0.00439	.	39 mm Ø x 28 mm
DSZU C03	.	(0.002)	.	(0.009)	(0.003)	0.011	0.002	0.004	(0.009)	(0.0037)	(0.0006)	40 mm Ø x 30 mm
VS RG26	.	.	.	.	.	.	0.121	.	0.0058	.	.	~45 mm Ø x ~28mm
SS 431/2	0.005	0.004	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
VS UG2/11	(0.007)	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
DSZU C040	0.0071	(0.0004)	.	.	.	(0.0001)	0.0010	(0.001)	(0.002)	.	.	40 mm Ø x 25 mm
RM Fe 1/5	0.002	<0.005	.	<0.002	.	0.0008	<0.0005	<0.0005	0.002	.	<0.005	40 mm Ø x 40 mm
VS UG2/5	.	(0.002)	.	.	.	.	(0.01)	0.005	(0.02)	.	.	~45 mm Ø x ~28 mm
SS 432/2	0.007	0.018	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
BS 1005 *	<0.05	<0.005	<0.05	<0.0005	0.001	<0.05	0.002	0.001	<0.005	*	Provisional Analysis	38 mm Ø x ~7 or 19+ mm
BS 1009 *	<0.05	<0.005	<0.05									

ARSENIC AND ANTIMONY IN STEEL

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

#	Number	As	Sb	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	Sn	Ti
1	VS UG87	0.116	0.0012	0.59	1.18	0.026	0.022	1.25	0.030	0.50	0.260	0.024	0.02	.	0.044	.	0.103
1	12X 12749W	0.071	.	0.132	1.250	0.0257	0.101	0.298	0.311	0.485	0.554	0.004	.	0.436	0.224	0.040	0.031
1	SS 454/1	0.070	.	0.376	0.80	0.061	0.047	0.31	0.051	0.069	0.062	.	.	.	0.20	0.054	0.010
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	.	.	.	0.008	.
1	12X 15266V	0.0640	.	0.455	1.240	0.0344	0.0258	0.674	0.226	1.317	3.49	0.526	.	0.286	0.298	0.0082	.
1	IRSID 1656	0.055	.	0.477	0.730	0.027	0.013	0.277	.	(0.048)	(0.017)	(0.002)	.	.	(0.007)	.	.
1	12X 15260W	0.055	.	0.352	2.08	0.0275	0.074	0.485	0.152	0.453	2.98	0.191	.	0.0884	0.098	0.0094	.
1	12X 350B	0.053	.	0.138	0.706	0.029	0.0363	0.672	0.150	0.162	0.392	0.341	.	0.0206	0.149	0.0298	0.099
1	12X 350C *	0.05	.	0.16	0.76	0.03	0.04	0.45	0.20	0.16	0.34	0.29	.	0.032	0.15	0.035	0.075
1	12X 353G	0.0461	0.138	0.111	0.726	0.0099	0.0147	0.207	0.232	0.214	0.701	0.0485	.	0.0240	0.1063	0.113	0.0387
1	12X 12746U	0.049	.	0.0132	1.70	0.0247	0.064	0.183	0.368	0.161	0.182	0.021	.	0.115	0.654	0.202	0.0283
1	12X 358A	0.0393	0.128	0.129	0.709	0.0102	0.0142	0.199	0.250	0.212	0.625	0.0616	.	0.0355	0.108	0.117	0.0453
1	12X 355C	0.0331	0.0796	0.159	0.508	0.0214	0.0241	0.494	0.657	0.0710	0.113	0.1104	.	0.0495	0.1010	0.0564	0.153
1	12X 354B	0.023	.	0.252	5.03	0.0478	0.0105	0.200	0.0679	0.082	0.0487	0.0150	.	0.0237	0.0328	0.0154	0.0248
1	ECRM 055-2D	0.0187	0.00376	0.5199	0.687	0.0102	0.0205	0.3094	0.2089	0.3121	0.3217	.	.	0.0257	0.0960	0.0162	0.00104
1	12X 357C	0.0147	0.0140	0.270	0.220	0.0101	0.0590	0.153	0.265	0.0954	0.094	0.208	.	0.199	0.0105	0.0188	0.0569
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	.	0.0069	0.0182	0.0114	0.0005
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	.	0.046	.	0.039
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	.	0.044	.	0.012
1	BS 2931B	0.0033	0.0012	0.159	0.788	0.0108	0.0292	0.207	0.098	0.083	0.080	0.0191	.	0.0056	0.0329	0.0062	0.0008
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	.	0.119	.	0.022
1	IRSID 1670	0.0018	.	0.0011	0.3981	0.0128	0.0075	0.0046	0.0134	0.0142	0.0174	0.0479	.	0.0018	0.0009	0.0017	0.0078
1	VS UG88	0.0007	0.0003	0.62	1.26	0.0026	0.0043	1.22	0.171	0.52	0.474	0.01	0.009	.	0.104	.	0.107
1	VS UG91	0.0004	0.00009	0.49	.	0.0038	0.0021	2.23	0.057	0.039	0.064	0.048	0.048	.	0.058	.	0.038
1	SS 458/2	.	0.089	0.198	0.479	0.0281	0.0314	0.504	.	.	.	0.055	0.053	0.198	.	.	.
1	SS 457/2	.	0.050	0.307	0.327	0.0098	0.0448	0.105	.	.	.	0.088	0.084	0.0217	.	.	.

Number	B	Bi	Ca*	Ce*	Mg*	N	Nb	O*	Pb	Se	Ta	V	W	Zn	Zr	Units
VS UG87	.	.	.	.	.	0.010	.	.	0.00008	.	.	0.0038	.	.	.	~47 mm Ø x ~30 mm
12X 12749W	.	.	.	.	.	.	.	.	.	.	.	0.069	0.034	.	.	~40 mm Ø x ~15 mm
SS 454/1	.	.	.	.	.	.	.	.	(0.0001)	.	.	.	0.15	.	.	38 mm Ø x 19 mm last
IMZ 120	.	.	.	.	.	0.0115	.	.	0.077	.	.	.	.	.	.	40 mm Ø x 40 mm
12X 15266V	.	.	.	.	.	.	1.438	.	.	.	0.116	0.106	.	.	.	~40 mm Ø x ~15 mm
IRSID 1656	.	.	.	.	.	.	.	.	.	.	.	(0.002)	.	.	.	40 mm Ø x 35 mm
12X 15260W	.	.	.	.	.	.	0.254	.	.	.	(0.016)	0.442	.	.	.	~40 mm Ø x ~15 mm
12X 350B	.	.	.	.	.	.	.	.	.	.	.	0.0286	0.275	.	.	40 mm Ø x 15 mm
12X 350C *	.	.	* Provisional Analysis			.	.	.	.	.	.	0.012	0.25	.	.	~40 mm Ø x ~15 mm
12X 353G	.	0.0246	.	.	.	0.0027	0.0641	.	0.0179	0.0192	.	0.0189	0.135	.	0.034	~40 mm Ø x ~15 mm
12X 12746U	.	.	.	.	.	0.0218	.	.	.	.	.	0.0160	0.101	.	.	40 mm Ø x ~20 mm last
12X 358A	.	0.0102	.	.	.	0.0029	0.104	.	0.0052	0.097	.	0.0261	0.123	.	0.0113	~40 mm Ø x ~15 mm
12X 355C	(0.0012)	.	.	.	.	0.0023	0.023	.	.	0.0395	.	0.1265	0.037	.	0.0192	~40 mm Ø x ~15 mm
12X 354B	.	.	.	.	.	0.0027	0.0802	.	.	.	.	0.0204	0.0248	.	.	~40 mm Ø x ~15 mm
ECRM 055-2D	.	.	.	.	.	0.01069	.	.	.	.	.	0.00245	0.0166	.	.	38 mm Ø x 25 or 30 mm
12X 357C	0.0102	0.0058	.	.	.	0.0079	0.0051	.	0.0315	(0.004)	.	0.166	0.0194	0.0094	.	~40 mm Ø x ~15 mm
BS 1030	0.0003	.	12	(2)	.	0.0107	(0.0004)	50	0.0005	.	(0.001)	0.031	0.0012	.	(0.0002)	38 mm Ø x ~7 or 19+ mm 17025
VS UG90	.	.	.	.	.	0.015	.	.	.	.	.	.	.	.	.	~47 mm Ø x ~30 mm
VS UG89	.	.	.	.	.	0.017	0.0043	.	0.0003	.	.	0.021	.	.	.	~47 mm Ø x ~30 mm
BS 2931B	0.0002	.	2	.	1	0.0076	0.0011	21	(0.00004)	.	(0.0004)	0.0014	0.0007	last	0.0005	38 mm Ø x ~2 mm 17025
VS UG92	.	.	.	.	.	0.016	0.034	.	0.00017	.	.	0.024	.	.	.	~47 mm Ø x ~30 mm
IRSID 1670	0.0007	.	.	(2)	.	0.0016	(0.0003)	.	.	.	.	(0.0005)	.	.	.	37 mm Ø x 30 mm
VS UG88	.	.	.	.	.	0.020	0.059	.	0.00015	.	.	0.117	.	.	.	~47 mm Ø x ~30 mm
VS UG91	.	.	.	.	.	0.010	0.097	.	0.00006	.	.	0.049	.	.	.	~47 mm Ø x ~30 mm
SS 458/2	0.0069	.	.	.	.	.	0.0510	.	0.0140	.	.	0.105	.	.	(0.064)	38 mm Ø x 19 mm
SS 457/2	0.0046	.	.	.	.	.	0.0174	.	0.0098	.	.	0.153	.	.	0.025	38 mm Ø x 19 mm

BISMUTH AND SELENIUM STEEL

= Class, where 1 = CRM and 2 = RM

BS: 38 mm Ø x ~7 or 19+ mm CZ: ~39 mm Ø x 25 mm

#	Number	Bi	Se	C	Mn	P	S	Si	Cu	Ni	Cr	Al	As	Co	Mo	N
2	BS 4140A	0.105	.	0.40	0.84	0.021	0.076	0.21	0.15	0.15	0.97	0.016	0.005	0.010	0.16	0.0098
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	0.007	0.024	0.0086
2	BS 4140B	0.087	.	0.43	0.76	0.027	0.037	0.20	0.006	0.012	0.84	0.036	(0.002)	0.005	0.16	0.0064
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	0.012	0.21	0.0087
2	CZ CM-16A	0.039	.	0.355	0.92	0.043	0.033	0.77	0.293	0.72	0.70	0.125	0.058	0.056	0.405	0.015

Number	B	Ca	Nb	O	Pb	Sb	Sn	Ti	V	W	Zn	Zr
BS 4140A	.	(0.0003)	.	(0.0025)	(0.001)	.	0.011	(0.003)	0.004	.	.	last
BS 53MOD	.	(0.001)	.	(0.002)	0.0005	.	0.008	.	0.005	.	.	.
BS 4140B	.	(0.0002)	.	(0.002)	0.004	.	(0.002)	0.003	0.005	.	.	.
BS 4150MOD	.	0.0010	.	(0.003)	0.0010	.	0.013	(0.002)	0.008	.	.	.
CZ CM-16A	0.012	0.0006	0.066	.	0.053	0.027	0.025	0.099	0.319	0.141	0.021	0.062

CALCIUM IN STEEL

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

#	Number	Ca	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	N	V
1	BS HiCal-1	0.0140	0.271	1.00	(0.007)	0.0007	1.29	0.152	3.28	1.55	0.070	.	0.0024	0.379	.	0.0027
1	SS 115	0.0058	0.6224	0.682	0.0123	0.00093	0.2078	.	0.0196	0.0198	0.0527	.	.	.	0.0067	.
1	BS 9325A	0.0039	0.203	0.969	0.0079	0.0045	0.612	0.163	3.29	1.50	0.0056	.	0.0093	0.358	0.0076	(0.0024)
1	SS 116	0.0036	0.617	0.6756	0.0092	0.00176	0.201	.	0.0155	0.0141	0.0587	.	.	.	0.0069	.
1	ECRM 194-1D	0.0026	0.1532	1.188	0.0097	0.0006	0.431	0.0751	0.3417	0.733	0.0837	.	.	0.2857	0.0115	0.0243
1	BS XCCS-1	0.0024	0.0441	0.356	0.0068	0.0022	0.292	0.0143	0.0132	0.0288	0.061	.	0.0017	0.0060	0.0052	0.0012
1	BS 1020	0.0022	0.210	0.568	0.0058	0.0249	0.250	0.184	0.059	0.109	0.0006	.	0.0070	0.018	0.0109	0.0363
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	IRSID 1665	0.0017	0.1209	0.446	0.0104	0.0135	0.187	0.0469	0.0308	0.0363	.	0.0379	0.0046	0.0047	0.0049	(0.0006)
1	BS 3941	0.0011	0.407	0.802	0.016	0.023	0.257	0.053	0.018	0.069	0.0019	.	0.0042	0.0061	0.0069	0.0025
1	IARM 254A	0.001	0.500	0.78	0.010	0.024	0.211	0.091	0.044	0.050	0.025	.	0.006	0.013	0.0096	0.002
2	BS 4150MOD	0.0010	0.47	0.90	0.024	0.079	0.21	0.19	0.15	1.01	0.012	.	0.012	0.21	0.0087	0.008
2	BS 4330V	0.0010	0.318	0.91	0.008	0.0009	0.240	0.181	1.91	0.91	0.021	.	0.011	0.475	0.0076	0.094
1	BS 4130	0.0007	0.303	0.541	0.0105	0.0113	0.245	0.221	0.088	0.924	0.0242	.	0.0065	0.168	0.0072	0.0037
2	BS 4942	0.0006	0.414	0.56	0.015	0.021	0.22	0.165	0.16	0.97	(0.004)	.	0.010	0.54	0.0080	0.28
2	BS 2952	0.0003	1.03	0.33	0.013	0.014	0.32	0.106	0.135	1.36	0.024	.	0.007	0.044	0.0084	0.005
1	BS PP20	0.0003	0.382	1.41	0.018	0.0070	0.262	0.119	1.00	1.94	0.0132	.	0.0145	0.212	0.0080	0.066
1	IMZ 111	0.0003	0.106	0.31	0.010	0.039	0.55	0.036	0.23	0.072	0.017	0.007	.	0.084	0.0133	0.022
2	TL 1669	0.00017	0.00226	0.0955	0.0137	0.0100	0.0093	0.0217	0.0160	0.0246	0.03553 (tot)	.	0.0019	0.0011	0.0024	(0.0006)

Number	As	B	Bi	Nb	O	Pb	Sb	Sn	Ti	W	Zr	Other
BS HiCal-1	0.0022	(0.0001)	.	(0.002)	.	(0.0005)	.	(0.0002)	0.0037	(0.0009)	(0.0008)	~38 mm Ø x ~30 mm
SS 115	.	.	.	.	.	.	.	.	0.0027	.	.	38 mm Ø x 19 mm
BS 9325A	0.0024	(0.0001)	.	0.0017	.	(0.0003)	Fe: 92.8	(0.0003)	0.0030	0.024	(0.001)	~40 mm Ø x ~30 mm
SS 116	.	.	.	.	.	0.00012	.	.	0.00171	.	.	44 mm Ø x 19 mm
ECRM 194-1D	0.0042	0.0020	.	.	.	.	.	.	.	.	.	Block ~38 x 34 x 32 mm
BS XCCS-1	0.0024	(0.0004)	.	(0.001)	Fe: 99.2	(0.0006)	(0.0005)	0.0002	0.0015	(0.003)	0.0006	~40 mm Ø x ~30 mm
BS 1020	0.0074	(0.0001)	.	(0.0003)	0.0046	(0.0002)	(0.0018)	0.0090	(0.0005)	(0.0004)	(0.0005)	44 mm Ø x ~7 or 19+ mm
HRT FE2009-N	.	.	.	.	.	.	.	.	.	.	Zn: 0.004	40 mm Ø x 40 mm
IRSID 1665	0.0067	(0.00032)	.	.	.	(0.0014)	(0.0008)	0.0031	(0.0008)	.	.	37 mm Ø x 30 mm
BS 3941	0.0036	(0.0001)	.	0.033	0.0055	0.0010	0.0005	0.0019	0.0017	(0.0004)	(0.0003)	41 mm Ø x ~7 or 19+ mm
IARM 254A	0.005	0.0002	.	0.001	(0.003)	(0.0003)	.	0.005	0.001	(0.001)	(0.001)	31 mm Ø x 2 mm
BS 4150MOD	0.005	.	0.070	.	(0.003)	0.0010	.	0.013	(0.002)	.	.	38 mm Ø x ~7 or 19+ mm
BS 4330V	.	.	.	.	0.0018	.	.	0.010	.	.	.	37 mm Ø x ~7 or 19+ mm
BS 4130	0.0048	(0.0002)	.	0.0015	0.0015	(0.00003)	(0.0021)	0.0099	0.0009	0.0011	Mg: 0.0002	38 mm Ø x ~7 or 19+ mm
BS 4942	0.005	.	.	.	(0.0021)	.	.	0.014	.	.	.	38 mm Ø x ~7 or 19+ mm
BS 2952	0.004	.	.	.	(0.002)	.	0.003	0.006	0.003	.	.	44 mm Ø x ~7 or 19+ mm
BS PP20	0.0049	0.00011	.	0.0048	(0.0010)	.	0.0013	0.0069	0.0007	0.0058	.	38 mm Ø x ~7 or 19+ mm
IMZ 111	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
TL 1669	0.0017	0.00038	.	0.00046	.	0.00013	0.00049	0.0071	0.0504	.	(0.00021)	38 mm Ø x 25 mm
												Zn: 2.7*

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

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
2	2.25Cr-1Mo	F-22	BS 1982	0.128	0.441	0.012	0.026	0.255	0.177	0.197	2.09	0.89	0.021	0.010	0.0097	0.013	0.003
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

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 > 1, Mo > 0.1)

= Class, where 1 = CRM and 2 = RM * Provisional Analysis

#	Number	Cr	Mo	C	Mn	P	S	Si	Cu	Ni	Al	As	Co	N	Sn	V
1	BS 48B	8.78	0.949	0.110	0.36	0.0228	0.0068	0.75	0.070	0.165	0.0157	0.0048	0.0165	0.0088	0.0049	0.033
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	0.216
1	BS H-13	5.14	1.24	0.402	0.386	0.0103	0.0202	0.99	0.197	0.109	0.0152	0.0066	0.0092	0.0108	0.0093	0.98
2	HRT FE2012-H	5.13	2.78	0.37	0.41	0.019	0.002	0.42	0.07	0.20	.	.	.	.	.	0.42
2	BS 47B	4.78	0.45	0.122	0.39	0.014	0.022	0.22	0.12	0.105	0.018	0.004	.	0.023	0.006	0.004
1	IARM 37C	4.34	0.500	0.096	0.408	0.014	(0.004)	0.31	0.121	0.148	(0.010)	(0.009)	0.015	0.008	0.009	0.017
2	BS 47A	4.22	0.47	0.130	0.44	0.017	0.015	0.27	0.11	0.12	0.015	.	0.011	0.018	0.008	0.016
1	12X 40CDV12A	3.29	0.946	0.401	0.604	0.0060	0.0013	0.250	0.0978	0.1062	0.0208	0.0040	0.0197	0.0155	0.0049	0.198
1	SRM 1772	3.10	1.39	0.477	0.61	0.008	0.0031	0.264	0.083	0.105	.	.	.	.	.	0.236
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	RM Fe D/7	2.97	1.21	0.85	0.21	0.019	0.013	1.03	0.06	0.12	0.15	0.004	0.32	.	(0.0030)	0.05
2	RM Fe D/5	2.72	1.41	0.85	0.31	0.022	0.023	1.18	0.11	0.12	0.22	0.005	0.32	.	0.013	0.031
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
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
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	IARM 196A	2.35	0.129	1.08	2.40	0.040	0.014	0.35	0.25	0.61	0.015	0.025	0.013	0.0084	0.033	0.157
1	SRM 1270	2.34	0.956	0.077	0.626	0.0065	0.0065	0.247	0.114	0.174	.	.	0.038	.	.	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	0.0073
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	(0.016)
1	ECRM 190-1D	2.18	0.410	0.395	1.28	0.0112	0.0044	0.278	.	0.934	.	.	0.034	.	.	.
1	SRM 1139a	2.1	0.51	0.79	0.92	0.012	0.013	0.80	0.47	0.98	.	.	.	.	.	0.26
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	0.003
1	BS PP20	1.94	0.212	0.382	1.41	0.018	0.0070	0.262	0.119	1.00	0.0132	0.0049	0.0145	0.0080	0.0069	0.066
1	BS 55G *	1.8	0.42	0.38	0.85	0.011	0.003	0.57	0.11	0.13	0.012	0.006	0.009	0.008	0.008	0.006
1	IRSID 1749	1.734	0.257	0.411	0.733	0.0104	0.0157	0.193	0.188	0.190	1.034	0.0134	0.0141	0.0066	0.0148	(0.0036)
1	ECRM 129-3D	1.702	0.206	0.3684	0.371	0.0110	0.0165	0.2087	0.0804	1.022	0.016	0.0049	0.0148	0.0046	0.0067	.
1	TL 1100	1.664	0.3349	0.3487	0.6284	0.0124	0.0049	0.2839	0.1767	3.727	0.0374	.	0.0283	0.0116	0.0083	.
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
1	SRM 1286	1.53	0.344	0.196	0.152	0.008	0.017	0.130	0.043	2.81	0.109	0.019	0.116	.	0.012	0.0057
2	BS 68B	1.51	0.309	0.39	0.52	0.010	0.020	0.26	0.163	0.165	1.08	.	0.010	0.0073	0.010	0.007
1	BS 68E	1.49	0.322	0.406	0.560	0.005	0.0004	0.296	0.134	0.147	1.09	(0.003)	0.007	0.0030	0.0097	0.0010
1	12X 24065A	1.412	0.1716	0.370	0.502	0.0129	0.0044	0.218	0.216	0.271	1.035	0.0074	.	0.0076	0.0120	0.0040
2	BS 58E	1.40	0.110	0.100	0.63	0.009	0.002	0.29	0.154	3.22	0.029	0.003	0.013	0.0033	0.003	0.006
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	IARM 35L	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	0.0037
1	SS 112	1.236	0.190	0.394	0.436	0.0043	0.0026	0.289	0.149	1.461	0.0148	0.0021	0.0175	0.0024	0.0086	.
1	12X 43400A	1.181	0.223	0.422	0.592	0.0164	0.0284	0.259	0.177	1.378	0.013	0.0084	.	0.0089	0.007	.
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	0.0083
1	IRSID 1745	1.130	0.222	0.295	0.850	0.0077	0.081	0.220	0.202	0.188	0.0202	0.0262	.	.	0.0134	(0.004)
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	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
2	BS 1962	1.05	0.229	0.41	0.94	0.007	0.011	0.242	0.224	0.16	0.018	0.007	0.008	0.0095	0.010	0.004
1	IPT 501	1.05	0.210	0.277	0.723	0.016	0.030	0.208	0.083	0.063	0.034	.	0.008	0.0076	0.008	.
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	0.120
2	BS 4150MOD	1.01	0.21	0.47	0.90	0.024	0.079	0.21	0.19	0.15	0.012	0.005	0.012	0.0087	0.013	0.008
1	12X 41400A	1.003	0.211	0.418	0.795	0.0138	0.0210	0.221	0.238	0.127	0.0195	0.0088	.	0.0101	0.0181	.

Number	B	Ca	Nb	O	Pb	Sb	Ta	Ti	W	Zr	Units
BS 48B	(0.0002)	(0.003)	(0.001)	0.0022	(0.0002)	(0.001)	.	0.0031	0.026	(0.002)	38 mm Ø x ~7 or 19+ mm 17025 Fe: 88.7
BS 9905A	(0.0005)	(0.0002)	0.074	0.0024	(0.002)	(0.003)	(0.01)	0.0023	0.0024	(0.002)	38 mm Ø x ~7 or 19+ mm 17025 Fe: 88.9
BS H-13	(0.0002)	(0.0003)	(0.0004)	0.0018	(0.0003)	0.0020	(0.003)	(0.0019)	0.0022	(0.0014)	38 mm Ø x ~7 or 19+ mm 17025 Fe: [90.4]
HRT FE2012-H	.	.	(0.0007)	.	.	.	.	.	.	.	40 mm Ø x 20 mm
BS 47B	.	.	(0.004)	.	.	.	.	.	.	.	38 mm Ø x ~7 or 19+ mm
IARM 37C	.	.	(0.004)	.	.	.	.	(0.0025)	(0.012)	.	31 mm Ø x 2 or 18 mm
BS 47A	.	.	0.002	(0.003)	.	.	.	0.003	.	.	38 mm Ø x ~7 or 19+ mm
12X 40CDV12A	.	.	.	.	.	.	.	.	.	.	38 mm Ø x ~15 mm
SRM 1772	.	.	.	.	.	.	.	.	.	.	34 mm Ø x 19 mm
SS 407/2	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
RM Fe D/7	.	.	0.28	.	(0.0106)	.	.	0.10	0.07	0.14	40 mm Ø x 40 mm
RM Fe D/5	.	.	0.31	.	.	.	.	0.18	0.082	0.071	40 mm Ø x 40 mm last
IMZ 160	.	.	.	.	.	.	.	.	0.26	.	40 mm Ø x 40 mm
IMZ 159	.	.	.	.	.	.	.	.	0.26	.	40 mm Ø x 40 mm
HRT FE2009-N	.	0.0020	.	.	.	.	.	.	.	Zn: 0.004	40 mm Ø x 40 mm
IARM 36C	.	.	.	.	.	.	.	.	.	.	31 mm Ø x 2 or 18 mm
IARM 196A	0.0017	0.0002	0.087	0.0021	0.001	0.006	.	0.014	0.189	0.006	31 mm Ø x 18 mm
SRM 1270	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
BS 46B	(0.0006)	0.0009	(0.003)	0.0026	(0.001)	(0.002)	.	(0.001)	0.0008	(0.002)	38 mm Ø x ~7 or 19+ mm 17025 Fe: 95.7
IMZ 169	.	.	(0.0045)	.	(0.001)	.	.	0.001	.	.	40 mm Ø x 40 mm
ECRM 190-1D	.	.	.	.	.	.	.	.	.	.	35 mm x 35 mm x 30 mm
SRM 1139a	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 13 mm
BS 1982	.	.	(<0.003)	0.0017	(0.0003)	0.002	.	(0.001)	.	last	39 mm Ø x ~7 through 40mm 25(pre-17025)
BS PP20	0.00011	0.0003	0.0048	(0.0010)	.	0.0013	.	0.0007	0.0058	.	38 mm Ø x ~7 or 19+ mm 17025
BS 55G *	0.0002	0.0014	0.003	0.002	<0.005	<0.005	.	0.005	0.03	0.002	38 mm Ø x ~7 or 19+ mm Fe: [95.6]
IRSID 1749	.	(0.0002)	(<0.0005)	0.0002	(<0.0002)	0.0018	.	0.0031	(<0.0030)	(<0.0003)	41 mm Ø x 25 mm Mg: 9 ppm
ECRM 129-3D	.	.	.	.	.	0.00059	.	0.0030	.	.	39 mm Ø x 25 mm
TL 1100	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm
ECRM 195-1D	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 28 to 35 mm
SRM 1286	(0.006)	.	(0.012)	.	(0.0002)	.	.	0.040	(0.013)	(0.021)	32 mm Ø x 19 mm
BS 68B	.	.	.	.	.	.	.	0.005	.	.	41 mm Ø x 15-19 mm last
BS 68E	0.0002	(0.0003)	(0.002)	0.0011	(0.0002)	0.0024	.	0.0012	(0.002)	.	38 mm Ø x ~7 or 19+ mm Mg:0.0004 17025
12X 24065A	.	.	.	.	.	.	.	0.0028	.	Zn:0.0034	~40 mm Ø x ~15 mm
BS 58E	(0.0002)	(0.0002)	.	0.0008	.	.	.	(0.002)	.	.	38 mm Ø x ~7 or 19+ mm
12X 15CDV6A	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
IARM 35L	0.00044	.	(0.0026)	.	.	.	.	(0.0015)	(0.004)	.	31 mm Ø x 2 or 18 mm
SS 112	0.0007	.	0.0065	.	.	.	.	0.0100	.	.	44 mm Ø x 19 mm
12X 43400A	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm Zn: 0.0027
BS 45B	(0.0003)	0.0008	(0.002)	0.0015	(0.15)	(0.003)	.	0.0024	(0.0038)	(0.0009)	38 mm Ø x ~7 or 19+ mm 17025 Fe: 96.7
IRSID 1745	.	.	.	.	.	.	.	(0.003)	.	.	48 mm Ø x 30 mm
12X 11572A	.	.	.	.	.	.	.	.	.	Zn:0.0009	38 mm Ø x ~15 mm
12X 14072A	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
BS 1962	.	.	.	.	(0.001)	.	.	0.004	.	.	41 mm Ø x ~7 mm 25(pre-17025)
IPT 501	.										

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
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 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
1	IARM 182B	0.19	0.21	0.81	0.016	0.037	0.27	0.017	0.47	0.49	0.038	(0.003)	0.006	0.172	0.0040	0.0019	0.004
1	IARM 183C	0.18	0.079	1.06	0.078	0.31	0.004	0.016	0.019	0.055	0.0021	0.003	(0.002)	0.010	0.0049	0.003	0.002
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 *	0.13	0.39	0.90	0.01	0.02	0.27	0.12	0.25	0.97	0.02	<0.05	0.009	0.20	<0.05	0.01	0.002

Number	B	Ca	Nb	O	Sb	Ti	W	Zn	Grade	Units
BS 74C	.	.	(<0.005)	.	.	.	.	.	12L14	41 mm Ø x ~7 or 19+ mm
14X 12144A	.	.	.	.	.	.	.	.		~40 mm Ø x ~15 mm
CZ CM-15C	.	.	.	.	.	.	.	.		~39 mm Ø x 25 mm
BS 75G	(0.0002)	(0.0002)	(0.0003)	0.0155	.	(0.0004)	0.0004	.	11L17	41 mm Ø x ~7 or 19+ mm
BS 75F	.	.	.	.	.	.	.	.	11L17	40 mm Ø x ~7 mm
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
IARM 182B	(0.0003)	(0.0005)	(0.003)	(0.003)	(0.003)	(0.003)	(0.01)	(0.001)	86L20	31 mm Ø x 2 mm
IARM 183C	0.0011	.	0.0010	0.016	(0.001)	0.0009	(0.002)	0.001	12L14	31 mm Ø x 2 or 18 mm
BS 72B	.	.	(0.001)	.	.	(0.002)	.	.	41L50	37 mm Ø x ~7 or 19+ mm
BS 73B	.	.	.	.	.	.	.	.	86L20	41 mm Ø x ~7 or 19+ mm
BS 70B	.	.	.	.	.	.	.	.	41L40MOD	41 mm Ø x ~7 or 19+ mm
BS 70C *	<0.005	.	<0.05	<0.05	.	0.002	.	Zr:<0.05	41L40MOD	41 mm Ø x ~7 or 19+ mm

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

MANGANESE STEEL

14X:~40Øx~15~17mm BS:32Øx~15~17mm CZ:~39Øx25mm DSZU:39Øx20mm ECRM:35Øx25mm IMN:50~56Øx15mm SS 491:50Øx10mm other SS:48x42x12mm VS:~38Øx~18mm

#	Number	Mn	C	P	S	Si	Cu	Ni	Cr	Al	Mo	N	Nb	Sn	V	Other
1	DSZU C013	28.8	0.89	0.025	(0.002)	0.29	0.108	(0.20)	(0.14)	(8.6)	(0.44)	(0.002)	(0.46)	.	(0.1)	.
1	VS LG68	28.8	0.39	(0.02)	0.003	.	0.11	0.20	0.13	8.6	0.46	.	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	.	0.43	.	0.026	B:(0.001) Ti:(0.004)
2	CZ SP-2B	26.1	1.42	0.10	0.009	0.51	0.096	0.32	1.36	0.008	0.38	.	W:0.084	0.32	0.155	Co:0.040 Ti:0.025
1	IRSID 1833	22.57	0.605	0.0345	(0.0005)	0.193	0.030	0.0494	0.268	0.0025	0.0133	0.012	0.0026	0.0043	0.203	As, Co, Pb, and Ti **
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	0.096	0.0393	0.0226	Ta:(0.011) Ti:0.0346
1	DSZU C024	20.9	0.39	0.021	0.0072	0.31	0.087	0.303	0.17	(2.9)	(0.3)	(0.013)	.	.	(1.14)	.
1	VS LG67	20.9	0.39	0.020	0.007	0.31	0.090	0.11	0.19	2.88	.	.	.	.	1.09	.
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)	~15mm height
2	BS 17A	19.38	0.588	0.043	0.005	0.22	0.135	0.060	1.37	0.052	0.52	0.038	0.06	0.012	0.016	Co:0.013
1	DSZU C011a	17.4	0.45	0.042	0.008	0.43	0.089	0.11	0.36	(2.8)	(0.014)	.	.	.	.	.
1	DSZU C024	16.95	0.88	0.068	0.0100	0.531	0.72	0.66	1.62	(0.004)	0.29	(0.021)	(0.10)	.	0.29	B:(0.003) Ti:(0.006)
1	IMZ 198	16.10	0.44	0.031	0.0090	0.423	0.104	0.058	0.30	2.80	(0.008)	.	.	.	.	Ti:(0.005)
1	VS LG66	16.1	0.44	0.031	0.010	0.41	0.104	0.059	0.30	2.6	.	.	.	.	.	.
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)	.	.	.	.
1	14X MN4AC	13.62	0.938	0.073	0.0194	0.900	0.270	1.052	1.983	0.20	0.796	0.0450	0.153	0.0634	0.0332	Ti:0.075
1	SS 495/4	13.11	0.796	0.093	0.0128	0.674	0.0222	1.620	2.223	0.0082	0.266	0.0416	.	.	0.0525	Co:0.0120
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)	(0.02)	.	(0.02)	B:(0.001) Ti:(0.004)
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)	(0.01)	.	(0.03)	B:(0.001) Ti:(0.006)
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	VS LG65	12.2	1.19	0.080	0.0033	0.49	0.119	0.11	0.19	0.006	.	.	.	.	.	.
1	DSZU C021	11.23	1.32	0.035	0.010	0.105	0.32	0.36	0.62	(0.003)	0.096	(0.013)	(0.03)	.	0.124	B:(0.002) Ti:(0.005)
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 MN3T	11.03	0.994	0.0386	0.0091	1.00	0.153	0.497	0.749	(0.040)	0.259	0.034	0.407	0.0195	0.0198	.
2	14X 15196S	10.16	1.08	0.037	0.012	1.64	0.22	0.25	0.26	0.13	0.22	.	.	0.10	0.21	last of stock
1	14X MN2R	9.65	0.701	0.0198	0.0098	1.48	0.081	0.530	0.355	0.120	1.546	0.0125	0.294	0.061	0.121	Ti:0.179
2	BS 19A	8.76	1.57	0.092	0.009	1.46	0.51	1.48	3.75	0.057	1.97	0.039	0.040	0.037	0.10	Co:0.014
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)	(0.02)	.	0.152	B:(0.002) Ti:(0.003)
1	14X MN5T	8.55	1.377	0.0270	0.0110	1.59	0.421	1.372	3.31	(0.26)	1.91	0.0155	0.021	0.0129	0.0397	Ta:0.005 last
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	0.102	0.0228	0.0490	Ti:0.93
1	SS 492/3	8.33	1.18	0.0318	0.0093	0.299	0.0211	4.17	1.076	0.131	1.318	0.0225	.	.	(0.004)	Co:0.0048
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	0.041	0.0278	0.0810	Ta:(0.004) Ti:0.51
2	CZ CM-9B	2.27	0.17	(0.008)	(0.010)	0.89	0.040	0.023	1.36	0.049	(0.002)	.	(0.06)	(0.003)	(0.006)	+7 informational

* Provisional Analysis

** IRSID 1833 also contains As: 0.0034, Co: 0.0089, Pb: 0.00007, and Ti: 0.0011. Sample size 35 mm Ø x 25 mm.

CRM

MANGANESE STEEL SET

AVAILABLE IN SET/6 ONLY

30 mm Ø x 24 mm

CRM

Co/Fe/V MAGNETIC ALLOY PERMENDUR 2V

analysis listed in mass %

Table with columns: Number, Co, Fe, V, Mn, P, S, Si, Ni, N, Nb, O, Zr, Units. Row: IARM 326A 48.4 49.6 1.94 0.003 0.0013 0.0011 0.029 0.037 0.0004 0.038 0.0082 0.002 31 mm Ø x 2 mm

RESULFURIZED STEEL

= Class, where 1 = CRM and 2 = RM OES regularly requires extension of preburn time to analyze correctly

Main table with columns: #, Number, S, C, Mn, P, Si, Cu, Ni, Cr, Al, Co, Mo, N, Sn, Ti, V. Includes rows for grades like 14X MSF MIL, IMZ 123, ECRM 085-1D, BS 66L, 14X 12130A, IARM 206B, IARM 199C, IMZ 124, BS 1144A, 14X MSFM 2K, BS 1144, 14X MSFM 4A, IMZ 122, 14X 606M36TA, 14X 11390A, ECRM 058-2D, 14X MSFM3G, IARM 29E, 14X 11170A, BS 65C, BS 66B, IARM 348A, IARM 307A, BS 3993, IMZ 121, BS 52D, 12X 15253T, BS 4150MOD, BS 42A, 12X 15217R, BS 42, 12X 15255Q, KUT B2/2, BS 4150MOD-A*, IMZ 125, KUT A14, KUT B16, KUT B12, KUT B4, IARM 381A, NM 304.

Table with columns: Number, As, B, Bi, Ca, Nb, O, Pb, Sb, W, Zn, Zr, Units. Includes rows for various grades and analysis results, such as 14X MSF MIL, IMZ 123, ECRM 085-1D, BS 66L, 14X 12130A, IARM 206B, IARM 199C, IMZ 124, BS 1144A, 14X MSFM 2K, BS 1144, 14X MSFM 4A, IMZ 122, 14X 606M36TA, 14X 11390A, ECRM 058-2D, 14X MSFM3G, IARM 29E, 14X 11170A, BS 65C, BS 66B, IARM 348A, IARM 307A, BS 3993, IMZ 121, BS 52D, 12X 15253T, BS 4150MOD, BS 42A, 12X 15217R, BS 42, 12X 15255Q, KUT B2/2, BS 4150MOD-A*, IMZ 125, KUT A14, KUT B16, KUT B12, KUT B4, IARM 381A, NM 304.

RM

RESULFURIZED STEEL XRF SET

Part Number: BS RESUL-4 AVAILABLE INDIVIDUALLY ~7 mm discs

Table with columns: Grade, Number, C, Mn, P, S, Si, Cu, Ni, Cr, Mo, Al, Co, N, Sn, V, As. Includes rows for grades 1117, 1140 + P, 1141, 1215.

#	Number	SILICON STEEL				# = Class, where 1 = CRM, 2 = RM, and 3 = RM with no uncertainties											Sn	Ti
		Si	C	Mn	P	S	Cu	Ni	Cr	Al	Als	Mo	N					
2	CZ SST-4A	4.73	0.062	0.376	0.031	0.020	0.111	0.082	0.105	0.514	.	0.019	0.0058	0.025	0.035			
1	DSZU C047	3.95	0.975	0.402	0.023	0.0052	0.117	0.78	4.44	0.051	.	0.96	0.0164	0.0090	0.059			
2	CZ SST-3A	3.27	0.035	0.221	0.007	0.0093	0.096	0.061	0.043	0.009	.	0.036	0.0088	0.015	0.009			
1	SRM 1218	(3.2)	0.0029	0.014	(0.002)	0.0011	0.003	(0.002)	0.006	0.005	.	(0.003)	.	(0.004)	.			
3	CZ CM-12A	3.21	0.031	0.172	0.0130	0.0106	0.173	0.030	0.067	0.098	.	0.008	0.0070	<0.01	0.005			
1	SRM 1135	3.19	0.027	0.094	0.006	0.026	0.056	0.050	0.022	0.0028	.	0.014	.	0.004	.			
3	CZ SP-5B	3.07	0.20	1.86	0.108	0.023	0.15	3.00	0.38	0.18	.	0.13	.	0.08	0.35			
2	CZ SST-2A	3.07	0.083	0.160	0.026	0.0089	0.205	0.066	0.138	0.010	.	0.054	0.0078	0.055	0.016			
1	SRM 1134	2.889	0.0261	0.2751	0.0276	0.0095	0.0707	0.0375	0.0198	(0.329)	.	0.0087	.	0.0034	.			
2	CZ SST-1A	2.57	0.072	0.062	0.041	0.0043	0.654	0.155	0.209	0.061	.	(0.002)	0.0059	0.110	0.004			
1	VS UG4/9	2.23	0.53	1.28	0.017	0.016	0.099	0.71	0.139	0.023	.	0.117	(0.004)	0.081	0.126			
1	VS UG91	2.23	0.49	.	0.0038	0.0021	0.057	0.039	0.064	0.048	0.048	0.058	0.010	.	0.038			
1	12X 15251U	2.05	1.017	0.910	0.0253	0.0215	0.1194	0.896	0.612	0.1085	.	0.205	0.0031	0.0108	.			
1	VS UG92	1.98	0.69	0.79	0.05	0.0029	0.111	0.155	0.200	0.091	0.08	0.119	0.016	.	0.022			
1	KUT T4/1	1.97	0.17	0.23	0.012	0.041	0.16	0.077	0.24	.	.	.	.	.	<(0.005)
1	12X 15259Q	1.81	0.603	0.401	0.0401	0.0704	0.200	4.02	0.512	0.1488	.	0.407	0.0151	0.053	.			
1	ECRM 196-2D	1.808	0.0060	0.364	0.00369	0.00065	0.0057	0.0401	0.0282	0.2167	.	0.0142	0.00178	0.00047	0.00253			
1	VS UG4/5	1.80	0.56	1.26	(0.008)	(0.006)	0.098	0.68	0.17	0.010	.	0.087	.	.	0.17			
1	NCS HS11751a	1.76	0.574	0.792	0.020	0.014	0.011	0.019	0.024	.	.	.	.	.	.
2	CZ LA-2E	1.725	0.081	0.111	0.060	0.044	0.577	2.015	0.149	0.357	.	0.652	0.0071	0.087	0.343			
1	ECRM 186-1D	1.72	0.610	0.870	0.022	0.035	0.281	0.190	0.218	0.014	.	0.048	.	.	.			
1	BS 300	1.68	0.410	0.721	0.0046	0.0006	0.118	1.867	0.803	0.099	.	0.370	0.0023	0.0053	0.0096			
1	12X 44220A	1.662	0.417	0.874	0.0050	0.0009	0.031	1.89	0.846	0.029	.	0.401	0.0030	0.0019	.			
3	CZ CM-2A	1.66	0.20	0.97	0.10	0.012	1.01	1.20	1.50	0.03	.	0.33	.	0.08	0.34			
1	VS UG111	1.64	0.52	0.625	0.0028	0.0035	0.065	0.036	0.058	0.049	.	0.039	.	.	0.025			
1	VS UG1/9	1.63	0.63	0.84	0.030	0.017	0.020	0.105	0.046	0.027	.	0.135	(0.002)	(0.002)	0.069			
1	IARM 340A	1.63	0.414	0.755	0.011	0.001	0.103	1.80	0.84	0.062	.	0.39	0.0020	0.005	0.0098			
1	IARM 342A	1.63	0.257	1.37	0.006	0.0051	0.110	1.76	0.38	0.019	.	0.42	0.0102	0.021	0.0028			
1	VS UG4/10	1.61	0.695	0.834	0.031	0.0060	0.050	0.156	0.130	0.064	.	0.089	0.0192	.	0.0044			
1	KUT B1/1	1.58	0.97	0.205	0.017	0.032	0.14	3.96	1.66	.	.	.	.	.	.
1	12X 15261X	1.513	0.546	0.483	0.090	0.0518	0.308	0.0985	0.496	1.648	.	1.594	.	0.0172	0.385			
1	VS UG1/10	1.51	0.51	0.659	0.0053	0.0042	0.096	0.190	0.067	0.015	.	0.051	0.0164	0.0030	0.016			
2	CZ LA-2D	1.48	0.065	0.26	0.011	0.052	0.53	2.00	0.135	0.18	.	0.57	0.008	0.085	0.30			
1	KUT All1/1	(1.46)	0.043	0.21	0.011	0.0137	0.047	0.04	0.02	0.02	.	1.20	.	0.002	0.17			
1	VS UG4/6	1.25	0.59	1.23	(0.003)	0.0008	0.169	0.47	0.400	0.032	.	0.083	<(0.0005)	0.017	0.131			
1	VS UG87	1.25	0.59	1.18	0.026	0.022	0.030	0.50	0.260	0.024	0.02	0.044	0.010	.	0.103			
1	VS UG1/5	1.23	0.62	0.79	(0.02)	(0.03)	(0.01)	0.048	0.069	0.022	.	0.061	.	.	0.045			
1	VS UG88	1.22	0.62	1.26	0.0026	0.0043	0.171	0.52	0.474	0.01	0.009	0.104	0.020	.	0.107			
1	DSZU C046	1.21	0.785	0.257	0.025	0.0153	0.211	1.47	2.67	0.47	.	0.69	0.0099	0.0033	0.115			
2	CZ LA-3E	1.19	0.60	0.70	0.044	0.026	0.22	1.01	0.94	0.061	.	0.32	0.010	0.026	0.135			
1	KUT A12	1.19	0.031	0.31	0.014	0.082	0.18	2.43	1.25	0.18	.	0.47	.	.	0.05			
2	CZ CM-14B	1.18	0.55	1.63	0.017	0.023	0.36	1.10	1.38	0.26	.	0.400	0.0072	0.040	0.36			
2	CZ CM-14A	1.15	0.523	1.58	0.051	0.028	0.30	1.14	1.13	0.063	.	0.395	0.0095	0.027	0.40			
1	12X 15258P *	1.01	0.40	1.21	0.067	0.032	0.11	0.50	0.61	0.090	.	0.38	.	0.070	.			
1	SS 603/2	0.97	0.79	0.236	0.020	0.056	(0.05)	(0.03)	(0.04)	0.076	.	(0.004)	.	.	.			
1	SS 405/2	0.947	0.044	0.903	0.0095	0.058	0.022	0.102	0.206	0.330	.	0.025	(0.011)	.	.			
1	SS 113	0.931	0.837	1.207	0.0595	0.0294	0.179	0.0784	1.248	0.0151	.	0.056	0.0109	0.0067	0.0390			
1	NCS HS11744	0.825	0.092	1.04	0.014	0.066	0.572	1.94	0.166	0.044	.	0.912	.	0.0041	0.049			
1	CKD 188A	0.775	0.332	0.169	0.006	0.033	0.057	0.445	5.11	0.093	0.083	1.28	0.0076	0.005	0.034			
1	SS 604/2	0.75	0.199	1.91	0.016	0.072	(0.07)	(0.09)	(0.06)	0.008	.	(0.02)	.	.	.			

#	Number	Si	C	Mn	P	S	Cu	Ni	Cr	Al	Als	Mo	N	Sn	Ti
Number		As	B	Ca	Co	Nb	O	Pb	Sb	Ta	V	W	Zr	Units	
CZ SST-4A	0.004	0.0006	.	0.012	.	.	.	0.008	(0.003)	.	0.031	0.026	(0.003)	~37 mm Ø x 25 mm	
DSZU C047	0.0077	0.0006	0.0013	0.066	0.021	.	.	.	.	.	1.84	1.88	.	40 mm Ø x 25 mm	
CZ SST-3A	(0.003)	0.0019	.	0.038	.	Zn:0.011	0.013	.	.	.	0.041	0.016	.	~37 mm Ø x 25 mm	
SRM 1218	.	.	.	(0.002)	.	.	.	.	.	.	<(0.001)	.	(0.002)	32 mm Ø x 19 mm	
CZ CM-12A	0.003	.	.	0.003	.	.	.	.	.	.	<0.01	.	.	~39 mm Ø x 25 mm	
SRM 1135	.	.	.	.	.	.	.	.	.	.	<0.01	.	.	31 mm Ø x 19 mm	
CZ SP-5B	0.19	0.14	.	0.135	0.09	.	0.09	0.07	.	.	0.71	0.62	.	~39 mm Ø x 25 mm	
CZ SST-2A	.	0.0089	.	0.022	.	Zn:0.011	0.015	0.008	.	.	0.024	0.019	0.017	~37 mm Ø x 25 mm	
SRM 1134	.	.	.	.	.	.	.	.	.	.	.	.	.	31 mm Ø x 19 mm	
CZ SST-1A	(0.002)	0.0003	.	0.005	.	.	(0.002)	(0.002)	.	.	0.006	.	.	~37 mm Ø x 25 mm	
VS UG4/9	(0.001)	(0.0003)	.	.	<(0.001)	.	0.008	.	.	.	0.054	0.061	.	~45 mm Ø x ~28 mm	
VS UG91	0.0004	.	.	0.097	.	.	0.00006	0.00009	.	.	0.049	.	.	~47 mm Ø x ~30 mm	
12X 15251U	.	.	.	0.228	0.266	.	.	.	.	.	0.391	0.0393	.	~40 mm Ø x ~15 mm	
VS UG92	0.0027	.	.	0.034	.	.	0.00017	0.0005	.	.	0.024	.	.	~47 mm Ø x ~30 mm	
KUT T4/1	.	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 39 mm	
12X 15259Q	.	.	.	0.141	0.249	.	.	.	.	.	0.139	0.49	.	~40 mm Ø x ~15 mm	
ECRM 196-2D	0.00033	0.00014	0.00071	0.0138	Mg:0.00075	.	.	.	.	.	0.00368	.	Zn:0.00019	38 mm Ø x 25 mm	
VS UG4/5	.	.	.	0.053	.	.	.	.	.	.	0.054	0.14	.	~45 mm Ø x ~28 mm	
NCS HS11751a	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm	
CZ LA-2E	0.083	0.0043	.	0.268	0.111	.	0.068	0.033	.	.	0.310	0.307	.	~37 mm Ø x 25 mm	
ECRM 186-1D	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 25 or 30 mm	
BS 300	0.0030	0.0003	0.0008	0.0079	0.0031	(0.0004)	(0.000026)	0.0007	(0.0012)	.	0.070	0.0009	(0.0002)	38mm Ø x ~7 or 19+mm Fe:93.8	
12X 44220A	0.0026	.	.	.	.	.	.	.	.	.	0.0764	.	.	~38 mm Ø x ~15 mm	
CZ CM-2A	0.11	0.0005	.	0.43	0.48	.	0.06	0.008	0.027	.	0.10	0.23	0.03	~39 mm Ø x 25 mm	
VS UG111	.	.	.	.	.	.	.	.	.	.	0.058	0.056	.	~45 mm Ø x ~28 mm	
VS UG1/9	(0.001)	(0.0003)	.	.	0.124	.	(0.002)	.	.	.	0.024	0.063	.	~45 mm Ø x ~28 mm	
IARM 340A	(0.004)	0.0004	(0.0004)	0.006	0.015	(0.001)	(0.001)	.	0.0021	.	0.064	(0.005)	(0.002)	31 mm Ø x 2 or 18 mm	
IARM 342A	(0.006)	0.0004	(0.0001)	0.008	(0.002)	0.0006	0.0008	.	0.0021	.	0.023	(0.005)	(0.002)	31 mm Ø x 2 or 18 mm	
VS UG4/10	.	.	.	0.030	.	.	.	.	.	.	0.0239	0.006	.	~45 mm Ø x ~28 mm	
KUT B1/1	.	.	.	.	.	.	.	.	.	.	.	.	0.001	30-35 mm Ø x 39 mm	
12X 15261X	0.0051	.	.	0.333	0.601	.	.	.	.	.	0.122	0.269	0.0297	~40 mm Ø x ~15 mm	
VS UG1/10	.	.	.	0.091	.	.	.	.	.	.	0.042	0.074	.	~45 mm Ø x ~28 mm	
CZ LA-2D	0.095	0.007	(0.0004)	0.26	0.24	.	0.050	.	0.040	.	0.30	0.29	0.003	~37 mm Ø x 25 mm	last
KUT All1/1	.	.	.	0.16	.	.	.	.	< 0.001	.	0.46	.	.	30-35 mm Ø x 39 mm	
VS UG4/6	(0.001)	.	.	(0.004)	(0.03)	.	(0.005)	(0.0005)	.	.	0.051	0.111	.	~45 mm Ø x ~28 mm	
VS UG87	0.116	.	.	.	.	0.00008	0.0012	.	.	.	0.0038	.	.	~47 mm Ø x ~30 mm	
VS UG1/5	.	.	.												

LOW ALLOY STEEL WITH C > 0.3%			CONTINUED ON THE NEXT PAGE										# = Class, where 1=CRM, 2=RM, 3=RM no uncertainties				
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	N	Nb	Ti	
1	VS UG0/6	1.40	0.329	(0.006)	(0.003)	0.221	0.286	0.55	0.73	0.129	(0.002)	(0.01)	0.079			0.0052	
1	CKD 182B	1.39	0.370	0.008	0.006	0.126	0.293	2.82	0.122	0.023	0.017	0.171	0.011	0.0049	0.001	0.004	
1	CKD 182C	1.36	0.363	0.009	0.008	0.111	0.294	2.80	0.123	0.028		0.171	0.012	0.0049	(0.001)	(0.002)	
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	0.041	0.029	
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	0.0033	0.017	
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				
1	ECRM 035-2D	1.277	0.305	0.0038	0.011	0.216	0.0085	0.0190	0.0104	0.0193			0.0056	0.0269		0.0030	
1	IMZ 65/2	1.15	0.27	0.007	0.007	0.22	0.05	0.047	0.030	0.030							
1	DSZU C049	1.17	0.237	0.0166	0.0147	0.227	0.069	0.044	0.131	(0.005)		(0.003)	(0.002)	(0.007)		(0.003)	
1	KUT A18	1.16	(1.99)	0.014	0.007	0.15	0.066	0.125	0.90	(0.02)					0.035	0.011	
1	VS UG0/11	1.16	0.196	0.0054	0.0078	0.233	0.134	0.114	0.163	0.033		0.0109	0.011	0.005		0.0041	
1	CZ CM-5B	1.09	0.349	0.013	0.009	0.24	0.12	0.153	0.18	0.018		0.022	0.10	0.135	0.06	0.05	
1	14X 72305A	1.085	0.349	0.0128	0.0028	0.206	0.149	0.089	0.425	0.0049			0.0231	0.068			
1	SRM 1761a	(1.05)	0.679	0.042	0.037	0.182	0.298	1.981	0.222	0.055		(0.027)	0.103	(0.0042)	0.021	0.173	
2	CZ CM-5C	1.04	1.17	0.029	0.021	0.54	0.151	0.42	2.45	0.063		0.022	0.133	0.014	0.014	0.031	
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	0.0046	0.130	
1	IMZ 172	1.03	0.71	0.018	0.047	0.21	0.128	0.12	4.47	0.062		0.012	0.96	0.0192		(0.002)	
1	NM PC-5	1.03	0.52	0.073	0.073	0.22	0.22	0.19	1.19								
1	IARM 49E	1.03	0.364	(0.006)	(0.002)	0.248	0.076	0.043	1.43	0.024		(0.006)	0.017	(0.003)	(0.003)	0.0060	
2	BS 2952	1.03	0.33	0.013	0.014	0.32	0.106	0.135	1.36	0.024		0.007	0.044	0.0084		0.003	
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)			
2	BS 53G	1.02	0.35	0.014	0.015	0.23	0.160	0.090	1.53	0.019		0.008	0.034	0.0084		(0.002)	
1	CKD 184A	1.013	2.23	0.028	(0.01)	0.348	0.089	0.250	2.33	0.022	0.016	0.007	0.016	0.0104	0.013	0.010	
1	NILAB 100LA D	1.002	0.333	0.012	0.018	0.227	0.019	0.027	1.517	0.005		0.007	0.012	0.0046		0.0007	
1	IRSID 1747	0.990	0.333	0.0078	0.0068	0.222	0.1243	0.0850	1.501		0.0392	0.0110	0.0141	0.0084	(0.0025)	0.0041	
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	0.014	0.0016	
1	IARM 49D	0.99	0.49	0.013	0.0059	0.24	0.120	0.061	1.20	0.018		(0.006)	0.016	0.0102	0.009	0.0020	
2	BS A485-1	0.98	1.10	0.019	0.031	0.63	0.20	0.061	1.07	0.017		0.010	0.029	0.0060		0.002	
1	KUT B15	0.98	0.69	0.030	0.004	0.80	0.14	0.15	3.70	0.13		0.21	0.120			(0.32)	
1	VS UG75	0.98	0.286	0.0127	0.0089	0.248	0.111	0.201	1.43	(0.03)			(0.01)		(0.01)	(0.001)	
2	CZ LA-4C	0.95	0.021	0.019	0.012	0.07	0.056	0.045	1.83	0.048		(0.006)	0.008	0.012	0.053	(0.002)	
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		0.010	
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			
1	SS 401/2	0.935	1.197	0.0265	0.0078	0.602	0.101	0.019	0.138	0.074		0.042	0.495	(0.015)			
1	IMZ 119	0.93	1.15	0.018	0.006	0.16	0.042	0.049	0.062	0.010	0.007		0.044	0.0086		(0.0007)	
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	0.012	
1	VS UG110	0.91	0.86	0.0063	0.0050	0.342	0.377	0.491	0.47	0.006			0.0052			0.0015	
1	VS UG21/6	0.83	0.74	(0.02)	(0.02)	0.312	0.346	0.47	0.50								
1	12X LA5C	0.783	0.726	0.0577	0.0261	0.493	0.158	0.484	0.678	0.10		0.166	0.305				
2	IARM 172A	0.78	0.010	0.007	0.004	1.29	0.40	0.025	3.52	0.39		0.006	0.014	0.0004	0.004	0.003	
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)			
1	IMZ 64/2	0.75	0.47	0.012	(0.005)	0.22	0.12	0.081	0.090	0.020							
1	VS UG8/11	0.75	0.49	0.013	0.004	0.21	0.11	0.081	1.71	(0.01)							
1	ECRM 059-2D	0.721	1.495	0.0046	0.0084	0.188	0.0074	0.0198	0.0090	0.00045	0.00020			0.622	0.138		
2	CZ CM-1C	0.72	1.73	0.023	0.025	0.31	0.18	0.52	0.47	0.034		0.026	0.084	0.009	0.054	0.066	
1	CZ CM-4B	0.70	0.230	0.023	0.022	0.80	0.10	0.71	2.23	0.40		0.115	0.13	0.013	0.071	0.12	
1	SS 404/2	0.696	0.532	0.0479	0.0228	0.21	0.427	0.393	0.74	0.017			0.307	0.089			
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			
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)	
1	VS UG1/11	0.61	0.667	0.0098	0.011	1.74	0.155	0.080	0.108	0.032		0.0195	0.0067	0.0100		0.0047	
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	
1	SRM 1764a	0.592	1.193	0.0210	0.0118	0.0595	0.5178	0.2006	1.468	0.0098		(0.012)	0.2007	(0.0023)	0.0416	0.0286	
1	DSZU C07	0.589	0.903	0.033	0.037	1.00	0.130	0.263	0.201	0.039		0.165	0.377		0.091	0.059	
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 10550	0.549	0.685	0.0184	0.0055	0.281	0.0290	0.0247	0.338	0.0325		0.105	0.0086	0.0051			
1	12X LA4B	0.537	0.303	0.0363	0.039	0.335	0.334	0.521	0.499	0.057		0.105	0.489	0.0222			
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				
2	CZ CM-6A	0.52	0.37	0.058	0.039	0.27	0.05	0.15	0.3	0.04		0.03	0.04	0.009	0.028	0.03	
2	CZ BO-2B	0.515	0.745	0.0093	0.0016	0.309	0.100	0.057	0.212	0.0196		0.0055	0.006	0.004		0.0017	
1	12X LA3C	0.500	1.693	0.0274	0.0442	0.163	0.213	0.280	0.375	0.0410		0.0475	0.303	0.0039		0.0045	
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	0.004	0.002	
1	BS 43A	0.491	0.921	0.013	0.016	0.22	0.102	0.184	0.28	0.030		0.008	0.039	0.0074			
1	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			
1	IMZ 103A	0.49	0.78	0.066	0.051	0.42	0.27	0.57	0.58	0.026		0.002	0.18		0.040	0.17	
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	0.041	(0.0014)	
1	BS 1144	0.483	1.55	0.022	0.243	0.262	0.462	0.097	0.193	(0.002)		0.011	0.017	0.0093	(0.004)	0.002	
1	IPT 503	0.456	0.682	0.027	0.027	0.218	0.129	0.063	0.160	0.018		0.006	0.020	0.0082		0.0011	
1	SRM C1173	0.453	0.174	0.031	0.092	1.38	0.204	4.04	2.63		</						

LOW ALLOY STEEL WITH 0.13 % < C < 0.3 % - CONTINUED ON THE NEXT PAGE #=Class, where 1=CRM and 2=RM

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	Co	Mo	N	Sn	V
1	IARM 330A	0.299	1.00	(0.005)	(0.001)	0.273	0.074	1.80	0.90	0.045	.	(0.003)	0.0063	0.404	0.0024	0.0039	0.071
1	12X 16604A	0.299	0.444	0.0064	0.0018	0.239	0.131	1.892	1.912	0.0111	.	.	0.0366	0.334	0.0046	0.0060	0.0069
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	12X 352D	0.298	0.627	0.066	0.125	0.338	0.144	0.334	0.423	0.146	.	0.0095	0.0504	0.257	.	0.105	0.0584
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	0.012	0.33	0.007	0.007	0.007
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	1.25
2	HRT FE2000-N	0.294	0.49	0.014	0.007	0.30	0.07	1.96	1.99	0.025	.	.	0.012	0.34	.	.	0.017
1	VS RG27/1	0.290	0.74	0.044	0.0043	0.28	0.208	0.142	1.83	1.07	.	.	0.025	0.191	.	.	0.072
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	0.011
1	SRM 1225	0.274	0.48	0.007	0.014	0.221	.	0.018	0.91	.	.	.	.	0.166	.	.	0.004
1	BS HiCal-1	0.271	1.00	(0.007)	0.0007	1.29	0.152	3.28	1.55	0.070	.	0.0022	0.0024	0.379	.	(0.0002)	0.0027
1	IARM 380A	0.268	1.24	0.021	0.025	0.181	0.265	0.114	0.192	0.0029	.	(0.007)	(0.010)	0.059	(0.012)	0.0117	0.0475
2	RM Fe 2/4	0.26	0.61	0.039	0.016	0.30	0.30	0.68	0.70	(0.001)	.	0.04	0.29	0.47	0.020	0.04	0.46
2	BS 69B	0.258	1.28	0.008	0.013	1.27	0.086	1.71	0.28	0.024	.	.	0.035	0.39	0.0057	0.006	(0.002)
1	12X 12750U	0.258	0.510	0.0078	0.0053	0.599	0.106	0.786	0.792	0.253	.	.	0.581	0.088	.	0.110	0.102
1	12X 32550A	0.257	1.350	0.0061	0.0054	1.59	0.108	1.750	0.377	0.0178	.	0.0054	.	0.417	0.0101	0.0206	0.0222
2	BS 6418	0.255	1.42	0.010	0.004	1.54	0.11	1.74	0.34	0.027	.	0.0044	0.010	0.42	0.0066	0.006	0.003
1	IARM 380B	0.243	1.27	0.016	0.027	0.238	0.307	0.182	0.153	(0.0021)	.	0.0058	0.014	0.055	(0.013)	0.0132	0.049
1	IMZ 113	0.24	0.50	0.022	0.025	0.10	0.11	0.13	1.25	0.007	0.004	.	.	0.050	0.0154	.	0.039
1	DSZU C043	0.239	2.18	0.054	0.070	0.114	0.50	2.93	0.44	0.071	.	0.0017	0.005	0.146	0.0100	0.0023	0.366
1	12X 722M24A	0.236	0.510	0.0135	0.0199	0.262	0.200	0.208	0.394	0.0187	.	0.0075	.	0.497	.	0.0116	0.0080
1	VS UG6/5	0.232	0.39	(0.006)	(0.008)	0.51	0.257	(0.2)	1.85	(0.4)	.	.	.	(0.2)	.	.	0.34
1	IARM 229B	0.220	0.858	0.0073	0.0106	0.329	0.0153	0.030	0.017	0.025	.	(0.002)	0.0116	0.495	0.0072	0.0012	0.0059
1	ECRM 197-1D	0.219	0.792	0.0073	0.0232	0.275	0.152	0.148	0.451	0.0313	.	0.0083	0.0135	0.402	0.0114	0.0097	.
2	BS 3961	0.215	0.565	0.016	0.022	0.236	0.133	1.67	0.510	0.022	.	.	(0.010)	0.27	0.0079	(0.008)	(0.002)
2	TL 1668	0.2146	1.643	0.0137	0.0012	1.645	0.0108	0.0164	0.0173	0.0371	.	0.0016	0.0031	(0.0014)	0.0043	0.0047	0.0016
1	BS 8620P	0.212	0.85	0.0090	0.033	0.243	0.234	0.427	0.547	0.040	.	0.0078	0.0089	0.206	0.0106	0.0102	0.0054
1	DSZU C048	0.212	0.467	0.0102	0.0059	0.273	0.262	0.105	0.175	0.0293	.	0.0085	0.015	0.016	(0.011)	0.016	.
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	.	.
1	BS 8620E	0.210	0.800	0.011	0.0238	0.255	0.186	0.564	0.541	0.027	.	0.0044	0.0068	0.223	0.0080	0.011	0.0024
1	VS UG4/11	0.21	0.59	0.024	0.0069	0.285	0.074	0.173	1.21	0.032	.	.	0.0108	0.87	0.020	.	0.78
1	IARM 33D	0.209	0.593	0.009	0.023	0.207	0.072	1.78	0.139	0.026	.	0.0035	0.008	0.229	0.0053	0.005	0.002
2	BS 3952	0.208	0.546	0.011	0.021	0.264	0.202	0.112	0.105	0.048	.	.	.	0.519	(0.0005)	.	.
1	ECRM 187-2D	0.2038	1.257	0.0066	(0.0300)	0.2111	0.1288	0.1755	1.132	0.0223	.	0.0057	0.0112	0.0623	0.0105	0.0237	0.0122
1	BS 9325A	0.203	0.969	0.0079	0.0045	0.612	0.163	3.29	1.50	0.0056	.	0.0024	0.0093	0.358	0.0076	(0.0003)	(0.0024)
1	BS 4820A	0.203	0.64	0.008	0.014	0.185	0.212	3.28	0.116	0.029	.	0.006	0.008	0.203	0.0076	0.0097	0.0010
1	SRM 1763a	0.202	1.584	0.0123	0.022	0.633	0.042	0.513	0.498	0.0435	.	0.055	0.093	0.490	(0.0045)	(0.011)	0.307
1	VS RG29/1	0.202	0.29	.	0.0090	0.22	1.25	4.71	0.89	0.0050	.	.	0.115	1.01	.	.	0.40
1	12X 12747V *	0.200	1.24	0.065	0.027	0.295	0.235	0.495	0.57	0.027	.	0.008	0.21	0.61	.	0.145	0.027
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	Co	Mo	N	Sn	V
1	VS RG31/1	0.200	0.191	0.0039	0.0058	0.28	0.39	2.12	1.28	0.30	.	.	0.273	0.30	.	.	0.200
1	KUT B3	0.20	0.14	(0.012)	0.025	0.53	0.25	5.94	.	.	.	.	.	.	.	.	1.16
1	VS UG5/5	(0.2)	0.52	(0.005)	(0.03)	0.145	0.37	0.42	1.42	0.19	.	.	.	0.44	.	.	0.29
1	IARM 155F	0.199	0.617	0.008	(0.013)	0.223	0.219	3.36	0.144	0.0356	.	(0.006)	0.012	0.244	(0.005)	0.0084	0.0015
1	12X 86200A	0.198	0.849	0.0110	0.0104	0.299	0.213	0.598	0.602	0.0305	.	0.0051	.	0.224	0.0091	0.0100	0.0045
1	12X LA2E	0.195	0.57	0.0241	0.0263	0.678	0.786	0.783	0.813	1.381	.	0.282	0.0306	0.136	0.0173	0.0066	0.0990
1	IMZ 112	0.195	0.43	0.022	0.016	0.27	0.055	0.046	0.034	0.034	0.024	.	.	0.043	0.010	0.15	0.045
1	VS UG8/10	0.192	1.81	0.0064	(0.005)	0.61	0.198	0.348	0.729	0.082	.	.	.	0.030	0.0185	0.0052	.
1	VS UG114	0.190	1.65	0.010	0.0074	0.59	0.173	0.345	1.03	0.146	.	.	.	0.016	.	.	0.0031
2	BS 51F	0.190	0.52	0.016	0.018	0.24	0.231	1.68	0.157	0.021	.	(0.0024)	0.009	0.224	0.0060	0.009	0.003
1	IMZ 162	0.19	1.31	0.021	0.014	0.59	0.077	1.64	0.91	(0.040)	.	.	.	0.52	.	.	0.045
1	VS UG113	0.189	1.55	0.0087	0.0070	0.59	0.185	0.186	1.12	0.263	.	.	.	0.010	.	.	0.0040
2	BS 4620	0.189	0.57	0.006	0.018	0.25	0.216	1.75	0.072	0.032	.	0.0084	0.012	0.24	0.0078	0.013	(0.0008)
1	ECRM 192-1D	0.1875	1.377	0.0029	0.0010	0.219	0.0453	0.755	0.0717	0.0306	0.0285	.	0.0055	0.482	0.0118	.	.
1	VS UG112	0.186	1.63	0.0065	0.0050	0.60	0.157	0.185	0.98	0.026	.	.	.	0.021	.	.	0.014
1	DSZU C08	0.184	0.756	0.019	0.008	0.389	0.550	(6.6)	2.34	0.011	.	(0.011)	0.062	0.514	.	(0.014)	0.216
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	0.056	0.0054	0.006	(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	IMZ 74A	0.179	1.19	0.008	0.010	0.34	0.209	0.130	0.197	0.012	.	.	0.0043	0.047	0.0118	0.012	0.072
1	12X 19MNV56A	0.174	1.563	0.0114	0.0245	0.357	0.203	0.110	0.1087	0.0101	.	.	.	0.0270	0.0210	0.0214	0.0939
1	ECRM 087-1D	0.174	0.671	0.010	0.046	0.263	0.171	0.118	0.078	.	.	0.024	0.015	0.021	.	0.017	.
1	12X 15180A	0.170	1.196	0.0110	0.0022	0.212	0.141	0.1030	0.118	0.018	.	0.0117	.	0.0231	0.0051	0.0115	.
2	HRT FE2013-N	0.17	0.57	0.013	0.010	0.33	0.09	1.45	1.52	0.026	.	.	.	0.26	.	.	.
1	ECRM 194-2D	0.1694	1.282	0.0137	0.00049	0.2974	0.0313	0.3316	0.760	0.0669	.	0.00208	0.00328	0.402	0.00319	.	0.00161
2	BS 3962	0.168	0.58	0.007	0.018	0.244	0.146	1.83	0.138	0.023	.	0.005	0.007	0.219	0.0072	0.007	(0.001)
1	VS UG7/11	0.164	0.293	0.0045	0.0062	0.39	0.468	2.09	1.31	0.276	.	.	.	0.291	0.298	0.014	0.208
2	CZ CM-8A	0.16	2.13	0.007	0.011	0.18	0.03	0.03	1.38	0.02	.	(0.002)	0.004	(0.001)	.	(0.003)	0.008
2	HRT FE1999-N	0.16	0.59	0.011	0.005	0.22	0.11	0.09	0.87	0.027	.	.	.	0.46	0.0091	.	0.021
2	BS XCCT	0.158	0.52	0.005	0.011	0.28	0.027	1.27	0.65	0.006	.	0.004	0.017	0.020	0.0076	(0.002)	0.031
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	0.009	(0.061)
2	BS 15A	0.142	1.12	0.016	0.008	0.058	0.030	0.029	0.044	0.041	.	0.003	0.005	0.008	.	0.002	0.012
2	RM Fe C/2	0.14	1.29	0.087	0.072	0.53	0.68	0.41	0.38	0.005	.	0.052	0.11	0.21	.	0.049	0

LOW ALLOY STEEL WITH 0.13 % < C < 0.3 %

CONTINUED FROM THE PREVIOUS PAGE

Number	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Ta	Ti	W	Zn	Zr	Units
IARM 330A	0.0003	0.0010	.	.	(0.003)	(0.0009)	(0.0004)	(0.001)	.	0.006	(0.004)	.	0.0015	31 mm Ø x 2 mm
12X 16604A	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
SRM 1269	.	.	.	.	.	.	0.005	.	.	.	.	.	.	32 mm Ø x 19 mm
12X 352D	.	.	.	.	.	.	.	.	.	0.285	0.223	.	.	~40 mm Ø x ~15 mm
ECRM 086-1D	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 25 or 30 mm
CZ CM-3A	0.0002	.	.	.	0.006	.	.	.	.	0.006	0.015	.	.	~39 mm Ø x 25 mm
VS UG9/10	.	.	.	.	.	.	.	.	.	0.163	1.34	.	.	~45 mm Ø x ~28 mm
HRT FE2000-N	.	0.0015	.	.	.	.	.	.	.	.	0.025	.	.	40 mm Ø x 20 mm last
VS RG27/1	.	.	.	.	.	.	.	.	.	0.110	0.170	.	.	~45 mm Ø x ~28 mm
IMZ 178	.	.	.	.	0.105	.	.	.	.	.	0.017	.	.	40 mm Ø x 40 mm
SRM 1225	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
BS HiCal-1	(0.0001)	0.0140 [91.9]	(0.0003)	(0.0002)	(0.002)	.	(0.0005)	.	.	0.0037	(0.0009)	.	(0.0008)	~40 mm Ø x ~30 mm 17025
IARM 380A	.	.	.	.	(0.0020)	.	.	.	.	.	(0.009)	.	.	31 mm Ø x 2 or 18 mm
RM Fe 2/4	(0.0027)	<0.001	.	.	(0.011)	.	<0.02	<0.03	.	(0.0065)	0.19	.	<0.02	40 mm Ø x 40 mm
BS 69B	.	.	.	.	.	.	.	.	.	(0.002)	.	.	.	38 mm Ø x ~7 or 19+ mm
12X 12750U	.	.	.	.	0.111	.	.	.	.	0.159	0.100	.	.	~40 mm Ø x ~15 mm
12X 32550A	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
BS 6418	.	.	.	.	.	0.0012	.	.	.	0.003	.	.	.	57 mm Ø x ~7 or 19+ mm
IARM 380B	.	.	.	.	(0.0016)	.	.	.	.	0.0011	(0.003)	.	.	31 mm Ø x 2 or 18 mm
IMZ 113	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
DSZU C043	(0.0005)	0.0005	.	.	0.004	.	.	.	.	0.046	0.082	.	.	40 mm Ø x 25 mm
12X 722M24A	.	.	.	.	.	.	.	.	.	.	.	0.0028	.	~38 mm Ø x ~15 mm
VS UG6/5	.	.	.	.	(0.01)	.	.	.	.	(0.01)	0.16	.	.	~45 mm Ø x ~28 mm
IARM 229B	(0.0006)	(0.0003)	.	.	(0.0019)	(0.0017)	(0.0005)	(0.0006)	(0.003)	0.0019	(0.003)	.	(0.0008)	31 mm Ø x 2 or 18 mm
ECRM 197-1D	.	.	.	.	.	.	.	.	.	0.0005	.	.	.	38 mm Ø x 25 mm
BS 3961	.	.	.	.	.	.	.	.	.	(<0.003)	.	.	.	44 mm Ø x ~7 or 19+ mm
TL 1668	(0.00024)	0.0019	.	(0.0003)	(0.0002)	.	(0.0007)	(0.0003)	.	0.0032	.	0.0008	(0.0003)	37 mm Ø x 25 mm
BS 8620F	(0.0003)	0.0020	97.1	(0.0002)	0.0025	0.0026	(0.002)	(0.002)	17025	0.0016	0.0016	.	(0.0008)	38 mm Ø x ~7 or 19+ mm
DSZU C048	.	(0.0017)	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 25 mm
1PT 502	.	.	.	.	.	.	.	.	.	0.0016	.	.	.	36 mm Ø x 20 mm
BS 8620E	(0.0003)	0.0010	97.2	(0.0003)	(0.002)	0.0016	(0.0008)	0.0015	(0.0004)	0.0016	0.0008	17025	(0.0008)	38 mm Ø x 19 or ~30 mm
VS UG4/11	.	.	.	.	0.071	.	.	.	.	0.034	0.0092	.	.	~45 mm Ø x ~28 mm
IARM 33D	0.0002	(0.0003)	.	.	0.002	0.0013	<0.001	(0.002)	.	0.003	<0.005	.	<0.002	31 mm Ø x 2 or 18 mm
BS 3952	.	.	.	.	.	.	.	.	.	.	.	.	.	39 mm Ø x ~7 or 19+ mm
ECRM 187-2D	0.00048	.	.	.	.	.	.	.	.	.	.	.	.	39 mm Ø x 28 mm
BS 9325A	(0.0001)	0.0039	92.8	(0.0002)	0.0017	.	(0.0003)	.	(0.010)	0.0030	0.024	17025	(0.001)	~40 mm Ø x ~30 mm
BS 4820A	0.0002	0.0003	.	0.0003	(0.002)	0.0011	(0.0002)	0.0024	.	0.0012	(0.002)	17025	.	38 mm Ø x ~7 or 19+ mm
SRM 1763a	0.0054	.	(95.3)	.	0.100	.	.	(0.011)	(0.012)	0.308	(0.002)	.	0.044	34 mm Ø x 19 mm
VS RG29/1	.	.	.	.	0.044	.	.	.	.	0.020	0.62	.	.	~45 mm Ø x ~28 mm
12X 12747V *	.	.	.	.	.	.	.	.	.	0.100	0.028	.	.	~40 mm Ø x ~15 mm
* Provisional Analysis														

Number	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Ta	Ti	W	Zn	Zr	Units
VS RG31/1	.	.	.	.	.	.	.	.	.	0.21	0.39	.	.	~45 mm Ø x ~28 mm
KUT B3	.	.	.	.	.	.	.	.	.	.	1.19	.	.	30-35mm Ø x 39 mm
VS UG5/5	.	.	.	.	(0.01)	.	.	.	.	(0.003)	0.38	.	.	~45 mm Ø x ~28 mm
IARM 155F	.	.	.	.	0.0016	(0.003)	.	.	.	0.0020	(0.004)	.	.	31 mm Ø x 2 or 18 mm
12X 86200A	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
12X LA2E	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
IMZ 112	.	.	.	.	0.013	.	.	.	.	0.010	.	.	.	40 mm Ø x 40 mm
VS UG8/10	.	.	.	.	(0.003)	.	.	.	.	0.0034	.	.	.	~45 mm Ø x ~28 mm
VS UG114	.	.	.	.	.	.	.	.	.	0.006	.	.	0.065	~45 mm Ø x ~25 mm
BS 51F	(0.0001)	(0.0005)	.	(0.0001)	(0.0005)	0.0020	(0.00007)	(0.0011)	.	(0.0012)	(0.0030)	(0.0002)	.	38 mm Ø x ~7 or 19+ mm
IMZ 162	.	.	.	.	.	.	.	.	.	0.12	.	.	.	40 mm Ø x 40 mm
VS UG113	.	.	.	.	.	.	.	.	.	0.006	0.007	.	0.169	~45 mm Ø x ~25 mm
BS 4620	0.00006	0.0001	.	0.0001	0.0001	0.0009	0.0002	0.0024	.	0.0026	0.0009	0.0002	.	38 mm Ø x ~7 or 19+ mm
ECRM 192-1D	.	.	.	.	.	.	.	.	.	.	.	.	.	~35 mm Ø x ~30 mm
VS UG112	.	.	.	.	.	.	.	.	.	0.0028	0.005	.	0.0047	~45 mm Ø x ~25 mm
DSZU C08	0.011	.	.	.	0.122	.	.	.	.	0.060	0.966	(0.003)	(0.006)	40 mm Ø x 30 mm last
BS LF3	0.0001	(0.0001)	.	.	.	0.004	.	.	.	.	.	.	.	38 mm Ø x ~7 or 19+ mm
HRT FE2012-N	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm
IMZ 74A	(0.002)	(0.0004)	.	.	0.041	.	.	.	.	0.022	.	.	.	43 mm Ø x 20 mm
12X 19MNV56A	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
ECRM 087-1D	.	.	.	.	.	.	.	0.0046	.	.	.	.	.	38 mm Ø x 25 or 30 mm
12X 15180A	.	.	.	.	.	.	.	.	.	.	.	0.0016	.	~40 mm Ø x ~20 mm
HRT FE2013-N	.	.	.	.	.	.	.	.	.	.	.	.	.	34 mm Ø x 20 mm
ECRM 194-2D	0.00155	.	.	.	0.0290	.	.	.	.	0.00322	.	.	.	39 mm Ø x 28 mm
BS 3962	.	.	.	.	.	.	.	.	.	.	.	.	.	37 mm Ø x ~7 or 19+ mm
VS UG7/11	.	.	.	.	.	.	.	.	.	0.20	0.385	.	.	~45 mm Ø x ~28 mm
CZ CM-8A	0.004	.	.	.	0.034	.	.	.	.	(0.001)	0.01	.	.	~39 mm Ø x 25 mm
HRT FE1999-N	0.0002	.	.	.	0.002	.	.	.	.	0.001	.	.	.	40 mm Ø x 20 mm
BS XCCT	.	.	.	.	(0.001)	(0.005)	(<0.001)	(0.0004)	.	(0.002)	.	.	(<0.002)	36 mm Ø x ~7 or 19+ mm
IMZ 176A	.	.	.	.	.	.	.	.	.	.	(0.015)	.	.	40 mm Ø x 40 mm
BS 15A	(0.0002)	(0.0005)	.	.	0.041	.	(0.0003)	(0.003)	.	0.008	(0.004)	.	0.022	32 mm Ø x 17 mm last
RM Fe C/2	0.0030	(0.0013)	.	.	0.0073	.	.	0.0190	.	0.0074	0.34	.	0.010	40 mm Ø x 40 mm
ECRM 193-1D	.	.	.	.	0.0232	.	.	.	.	(0.0013)	.	.	.	36-41 mm Ø x 28-35 mm
BS 47A	0.002	(0.003)	.	.	.	0.003	.	.	.	38 mm Ø x ~7 or 19+ mm

Number	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Ta	Ti	W	Zn	Zr	Units
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LOW ALLOY STEEL WITH C < 0.13 %

= Class, where 1 = CRM and 2 = RM

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	N	Sn	V
1	IMZ 76	0.129	1.37	0.022	0.011	0.24	0.057	0.33	0.12	0.011	.	.	0.101	.	.	(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	.	0.010	0.89	0.0097	0.013	0.003
1	12X 15256Q	0.123	0.492	0.0125	0.0163	0.190	0.0550	5.33	0.362	0.1300	.	0.493	0.0740	0.0056	0.107	0.619
1	12X 93106A	0.122	0.605	0.0071	0.0103	0.206	0.199	3.255	1.107	0.0246	.	.	0.0879	0.0098	0.0094	0.0029
2	BS 47B	0.122	0.39	0.014	0.022	0.22	0.12	0.105	4.78	0.018	.	.	0.45	0.023	0.006	0.004
1	DSZU C042	0.120	0.562	0.0123	0.0058	0.319	0.131	0.203	0.962	0.023	.	0.009	0.286	0.0100	0.0064	0.178
1	CKD 187C	0.118	0.530	0.035	0.013	0.598	0.041	0.085	3.50	0.038	.	0.071	0.563	(0.0153)	0.014	0.559
1	VS UG115	0.115	0.43	0.0084	0.012	0.227	0.173	1.63	0.81	0.024	.	.	0.0126	0.013	.	.
1	IMZ 71	0.114	0.54	0.018	0.011	0.49	0.88	0.041	0.46	0.014	.	.	0.008	.	.	0.045
1	IMZ 75	0.114	0.37	0.081	0.016	0.58	0.45	0.039	0.41	0.020	.	.	0.015	.	.	(0.007)
1	IMZ 75A	0.112	0.394	0.080	0.016	0.618	0.428	0.041	0.401	0.009	.	0.0037	0.018	0.0024	0.023	0.013
1	SRM 1138a	0.11	0.35	0.035	0.056	0.25	0.09	0.10	0.13	.	.	.	0.05	.	.	0.02
1	12X 12748U	0.106	0.902	0.0309	0.050	0.221	0.347	0.376	0.401	0.111	.	0.323	0.329	.	0.080	0.0499
1	IPT 500	0.106	0.844	0.016	0.0048	0.282	0.270	0.018	0.612	0.046	.	0.0046	0.0013	0.0092	0.002	0.003
1	12X LA1B	0.104	1.262	0.0090	0.060	0.777	0.0572	0.210	1.026	0.0104	.	0.0144	0.068	0.0144	.	0.448
1	KUT A13	0.104	0.49	0.053	0.073	0.81	0.166	1.93	0.14	0.042	.	0.011	0.91	.	0.060	0.23
1	VS UG6/6	0.104	0.227	(0.007)	(0.007)	0.337	0.616	2.05	1.40	0.47	.	(0.008)	0.34	.	0.0023	0.193
2	BS 58E	0.100	0.63	0.009	0.002	0.29	0.154	3.22	1.40	0.029	.	0.013	0.110	0.0033	0.003	0.006
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	0.011	0.014
2	BS 58C	0.098	0.57	0.011	0.014	0.29	0.14	3.20	1.29	(0.055)	.	.	0.11	.	(0.012)	.
1	IMZ 73	0.097	0.68	0.019	0.013	0.12	0.17	0.13	0.079	0.010	.	.	0.013	.	.	0.022
1	VS UG6/11	0.091	0.691	0.028	0.022	0.96	0.449	0.640	0.759	0.0107	.	0.0392	0.0082	0.0083	.	0.0075
1	KUT T3/2	0.09	0.60	0.058	0.033	0.66	0.10	0.11	0.40	.	.	.	.	.	.	.
1	VS UG5/10	0.088	0.177	0.0067	0.0055	0.135	0.490	1.87	1.51	0.47	.	.	0.049	0.0059	0.0036	0.121
1	IARM 268B	0.087	0.58	0.011	0.035	0.21	0.31	0.127	0.094	0.002	.	0.003	0.033	0.0015	0.010	0.047
1	IMZ 204	0.085	0.36	0.014	0.008	0.40	0.075	0.034	0.111	4.21	.	(0.007)	.	(0.0052)	.	.
1	SRM 1226	0.085	0.274	0.0022	0.0044	0.231	0.125	5.42	0.467	0.054	.	0.029	0.446	.	(0.003)	0.0018
1	NCS HS20747	0.083	0.967	0.02	0.015	0.472	.	.	.	.	.	.	.	.	.	.
1	DSZU C050	0.082	1.21	0.040	0.065	0.287	0.304	0.118	0.075	(0.008)	.	.	0.48	.	(0.004)	0.007
1	IMZ 72	0.081	0.31	0.092	0.012	0.34	0.27	0.039	0.52	0.013	.	.	0.006	.	.	(0.002)
1	NCS HS20745	0.068	0.813	0.1	0.024	0.33	0.297	.	.	.	.	.	.	.	.	0.022
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	.	.
1	SRM 1271	0.064	0.73	0.005	0.0013	0.334	1.48	3.34	0.552	0.020	.	.	0.543	.	.	0.003
1	SRM C1285	0.058	0.332	0.072	0.020	0.36	0.37	1.17	0.80	.	.	0.036	0.164	.	0.035	0.150
1	SRM 1767	0.052	0.022	0.0031	0.0090	0.026	0.0014	0.002	0.015	0.004	.	0.0050	0.020	0.0008	0.006	0.033
2	CZ CM-7A	0.05	1.17	0.011	0.016	0.56	0.09	0.05	0.10	0.13	.	0.007	0.015	0.01	0.008	0.012
1	CKD 183E	0.049	1.76	0.009	0.013	1.03	0.575	1.10	0.205	0.149	.	0.119	0.036	0.0040	0.053	(0.004)
1	SS 421	(0.049)	(0.11)	(0.012)	(0.027)	(0.07)	.	.	.	.	.	.	(0.028)	.	.	(<0.02)
1	12X 15252Q	0.0478	0.818	0.0213	0.0580	0.265	0.154	2.03	0.887	0.074	.	0.154	0.248	.	0.0448	0.330
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 UG97	0.041	0.59	0.0036	0.0025	0.194	0.0040	0.0048	0.0080	0.51	.	.	0.019	.	.	(0.001)
1	SRM 1766	0.015	0.067	0.002	0.0024	0.010	0.015	0.021	0.024	0.012	.	0.0020	0.0035	0.0033	0.0010	0.009
1	SRM 1765	0.006	0.144	0.0052	0.0038	(0.004)	0.0013	0.154	0.051	(0.006)	.	0.0012	0.005	0.0010	0.002	0.0040
1	DSZU C01	0.004	0.049	0.002	0.002	0.014	0.008	0.530	0.040	0.004	.	0.217	0.124	.	(0.0008)	(0.003)
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
1	CKD 180B	(0.003)	0.047	0.004	0.0038	0.001	0.006	0.018	0.013	(0.001)	.	0.003	0.001	(0.0028)	0.0011	0.000
1	ECRM 064-2D	0.0026	0.1641	.	.	0.0065	0.0077	0.0115	.	.	.	0.0027	0.00077	0.0026	0.00051	0.00015

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	N	Sn	V
		As	B	Ca	Ce	Fe	Nb	O	Pb	Sb	Ti	W	Zr	Units		
	IMZ 76	.	(0.001)	.	.	.	0.068	.	.	.	(0.003)	.	.	.	.	40 mm Ø x 40 mm
	VS UG86	.	.	.	.	.	.	.	.	.	.	.	.	.	.	-40 mm Ø x ~28 mm
	BS 1982	0.007	.	.	.	.	(<0.003)	0.0017	(0.0003)	0.002	(0.001)	.	25(pre-17025)	.	.	39 mm Ø x ~7 to 40mm
	12X 15256Q	.	.	.	.	.	0.0509	.	.	.	.	0.101	.	.	.	-40 mm Ø x ~15 mm
	12X 93106A	0.0050	.	.	.	.	.	.	.	.	.	.	.	.	.	-38 mm Ø x ~15 mm
	BS 47B	0.004	.	.	.	.	.	(0.004)	.	.	.	.	.	.	.	38 mm Ø x ~7 or 19+mm
	DSZU C042	0.0073	0.00023	0.0010	.	.	0.0025	.	.	0.0018	(0.006)	.	.	.	.	40 mm Ø x 25 mm
	CKD 187C	(0.007)	0.0006	.	Ta: 0.016	.	0.028	.	(0.003)	0.023	0.110	0.67	0.011	.	.	44 mm Ø x 13 or 25 mm
	VS UG115	.	.	.	.	.	.	.	.	0.0014	.	.	.	.	.	-45 mm Ø x ~25 mm
	IMZ 71	.	(0.002)	.	.	.	(0.005)	.	.	.	(0.002)	.	.	(0.002)	.	40 mm Ø x 40 mm
	IMZ 75	.	.	.	.	.	.	.	.	0.024	.	.	last	.	.	40 mm Ø x 40 mm
	IMZ 75A	.	0.0021	.	.	.	0.024	.	.	0.023	.	.	.	.	.	38 mm Ø x 20 mm
	SRM 1138a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 13 mm
	12X 12748U	0.129	.	.	.	.	.	.	.	.	0.105	0.0464	.	.	.	-40 mm Ø x ~15 mm
	IPT 500	0.0020	.	.	.	.	0.008	.	.	.	0.0014	.	.	.	.	34 mm Ø x 18 mm
	12X LA1B	0.0212	.	.	.	.	.	.	.	.	.	.	.	.	.	-40 mm Ø x ~15 mm
	KUT A13	0.070	(0.002)	.	.	.	.	.	.	0.024	0.11	.	.	.	.	30-35mm Ø x 39 mm
	VS UG6/6	(0.002)	.	.	.	.	.	.	(<0.0005)	.	0.125	0.39	.	.	.	-45 mm Ø x ~28 mm
	BS 58E	0.003	(0.0002)	(0.0002)	.	.	.	0.0008	.	.	(0.002)	.	.	.	.	38 mm Ø x ~7 or 19+mm
	IMZ 175	.	.	.	.	.	.	.	.	.	.	(0.019)	.	.	.	40 mm Ø x 40 mm
	BS 58C	low supply	.	.	.	.	.	.	.	.	.	no uncertainties	.	.	.	39 mm Ø x ~17 mm
	IMZ 73	.	.	.	.	.	(0.01)	.	.	.	(0.002)	.	(0.0025)	.	.	40 mm Ø x 40 mm
	VS UG6/11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	-45 mm Ø x ~28 mm
	KUT T3/2	.	.	.	.	.	.	.	.	.	(<0.01)	.	.	.	.	30-35mm Ø x 39 mm
	VS UG5/10	.	.	.	.	.	(0.003)	.	.	.	0.027	0.43	.	.	.	-45 mm Ø x ~28 mm
	IARM 268B	<0.005	0.0011	.	.	.	0.006	(0.015)	<0.003	.	<0.001	0.01	<0.001	.	.	31 mm Ø x 2 mm
	IMZ 204	.	.	.	.	.	.	.	.	0.035						

RM LOW ALLOY STEEL XRF SETPart Number: BS LAS-24 Set of 24 samples, each 35 - 45 mm Ø x 7 mm discs **17025**

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	BS 42	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	BS 4330V	0.318	0.91	0.008	0.0009	0.240	0.181	1.91	0.91	0.475	0.021	.	0.0010	0.011	0.0076	0.010	0.094
4340	BS 60E	0.408	0.70	0.012	0.024	0.26	0.153	1.73	0.86	0.249	0.024	0.007	0.0010	0.009	0.0087	0.009	0.004
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	BS 43A	0.491	0.811	0.008	0.026	0.252	0.184	0.242	0.93	0.059	0.003	.	.	0.008	0.0074	0.011	0.148
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	0.23	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	0.32	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
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RM TOOL STEEL XRF SETPart 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	BS 39B	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	BS 35D	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	BS 41	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	BS 30D	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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TOOL STEEL

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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	Co	Mo	N	Ti	V	W	Al
1	BS PM15	3.54	0.416	0.0198	0.0127	0.912	0.142	0.203	5.33	0.0330	1.22	0.111	0.0029	14.79	0.109	0.0025
2	BS 10V	2.46	0.52	0.019	0.079	0.89	0.076	0.08	5.41	0.009	1.30	0.064	.	9.50	0.013	(<0.002)
1	DSZU C070	2.43	0.38	0.021	0.054	0.79	0.130	0.153	5.57	0.053	1.28	.	.	9.39	0.29	.
1	BS A-11	2.42	0.507	0.023	0.123	0.98	0.092	0.25	5.21	0.044	1.25	0.110	0.0019	9.24	(0.080)	0.0054
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	.
1	ECRM 288-1D	2.08	0.292	0.024	(0.0012)	0.260	0.060	0.298	12.00	0.018	0.103	0.0151	.	0.055	(0.68)	0.012
1	DSZU C080	1.68	0.33	0.025	0.020	0.89	0.120	0.162	5.06	0.028	0.39	.	.	5.12	3.40	.
1	BS 37G	1.663	0.326	0.021	0.0007	0.352	0.044	0.152	11.77	0.0166	0.78	0.0310	0.0025	0.70	0.034	0.0060
1	BS TS15	1.64	0.27	(0.017)	0.067	0.357	0.065	(0.18)	4.12	4.87	0.48	0.045	0.0016	4.81	11.6	0.0032
1	ECRM 274-1D	1.563	0.397	0.0148	0.0096	1.057	0.0281	0.077	8.036	(0.0230)	1.4551	0.0769	(0.0011)	4.010	0.0087	(0.0025T)
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	.
1	IARM 41D	1.519	0.256	0.012	0.012	0.256	0.047	0.114	11.5	(0.020)	0.74	0.0152	(0.003)	0.77	0.274	0.014
2	BS 41A	1.50	0.93	0.004	0.001	0.020	0.034	0.17	0.20	0.006	0.19	0.0077	0.004	(0.003)	<(0.003)	0.010
1	IARM 45B	1.42	0.90	0.010	0.008	0.92	0.018	0.024	0.061	0.004	0.24	0.0080	0.002	(0.003)	(0.004)	0.010
2	BS 41	1.41	0.89	0.013	0.011	1.02	0.038	0.15	0.22	.	0.23	.	.	0.046	0.035	(0.007)
2	BS A-10	1.41	1.75	0.016	0.022	1.15	0.016	1.82	0.24	(0.010)	1.53	.	.	(0.004)	<0.005	0.006
1	IARM 251A	1.398	0.33	0.014	0.058	0.58	0.13	0.131	4.31	0.129	5.16	0.044	0.003	3.9	5.5	0.01
2	IARM 45A	1.39	0.89	0.014	0.012	1.02	0.049	0.11	0.13	0.004	0.25	0.0079	0.003	0.005	2.82	0.011
1	DSZU C073	1.32	0.23	0.019	0.013	0.27	0.112	0.198	3.97	8.31	4.97	.	.	.	6.40	.
2	CT X27081	1.32	0.20	0.004	0.001	0.24	0.026	0.031	0.052	.	0.008	.	.	.	3.39	.
1	DSZU C072	1.30	0.29	0.024	0.019	0.55	0.106	0.192	4.25	0.011	5.39	.	.	3.59	6.33	.
3	CZ HS-2A	1.24	0.27	0.024	0.017	0.24	0.08	0.21	4.15	9.9	3.75	.	0.003	3.4	9.3	0.035
1	DSZU C077	1.16	0.19	0.030	0.024	0.40	0.142	0.271	4.07	7.73	3.05	.	.	2.04	12.17	.
1	DSZU C075	1.16	0.16	0.021	0.015	0.24	0.080	0.17	4.70	8.33	4.70	.	.	2.00	9.27	.
1	BS M-47	1.14	0.20	0.020	0.002	0.464	0.080	0.17	3.72	4.99	9.24	0.0219	(0.004)	1.23	1.36	(0.002)
1	IMZ 102/3	1.11	0.15	0.014	(0.0045)	1.06	0.13	0.021	1.59	.	0.43	.	.	(0.012)	.	0.017
1	DSZU C074	1.10	0.16	0.023	0.020	0.16	0.141	0.158	3.93	5.08	5.21	.	.	1.94	6.47	.
1	DSZU C071	1.06	0.20	0.020	0.028	0.38	0.162	0.149	3.77	7.35	9.67	.	.	1.07	1.74	.
1	SS 487/1	1.02	0.26	0.022	0.029	0.18	(0.14)	0.14	3.91	7.95	9.41	.	.	1.14	1.80	0.006
1	DSZU C081	1.01	0.32	0.017	0.011	1.10	0.124	0.207	7.78	0.029	2.13	.	.	0.25	0.05	.
2	CT M7	1.00	0.29	0.012	0.003	0.34	0.066	0.10	3.60	0.015	8.49	.	.	2.02	1.78	.
1	JK 49D	(1)	(0.4)	(0.02)	(0.01)	(0.5)	(0.1)	(0.2)	(5)	(0.3)	(3)	1.89	.	(9)	(4)	.
1	IARM 39B	0.99	0.54	0.017	0.003	0.35	0.10	0.14	4.79	0.014	1.01	0.0096	0.003	0.22	(0.026)	0.006
1	IARM 39C	0.99	0.45	0.019	0.007	0.28	0.077	0.144	4.99	0.013	0.97	0.011	0.0029	0.21	0.011	0.017
2	BS 36D	0.97	0.68	0.021	0.007	0.27	0.060	0.089	5.25	0.010	0.96	0.0108	.	0.29	0.028	0.010
2	CT A2	0.95	0.72	0.010	0.004	0.40	0.06	0.10	5.13	.	1.05	.	.	0.22	.	.
1	SS 485/1	0.94	0.41	0.043	0.039	0.30	(0.14)	0.204	4.02	4.97	0.66	.	.	1.02	17.8	(0.006)
1	IARM 320A	0.93	0.33	0.021	(0.0015)	0.36	0.091	0.204	4.22	4.90	4.79	(0.014)	0.0032	1.76	6.01	0.023
2	CT O1	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	0.012	0.035	.	(0.003)	0.181	0.46	(0.005)
1	IARM 304A	0.857	0.260	0.019	0.016	0.36	0.14	0.133	3.55	0.278	8.04	0.034	0.002	1.23	1.65	0.009
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	0.022	0.25	0.039	0.053	4.14	0.010	4.92	0.018	.	1.82	6.15	0.018
1	IARM 306B	0.84	0.24	0.006	(0.001)	0.21	0.058	0.095	4.12	0.010	4.2	0.0049	(0.002)	0.98	(0.01)	0.08
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	0.0151	4.29	0.0057	(0.0018)	0.99	0.0052	0.073
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	0.247	5.02	0.033	0.004	1.91	6.0	0.05
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 48C	0.77	0.39	0.029	0.018	0.45	0.13	0.204	4.24	0.22	0.17	0.0165	(0.006)	1.27	17.5	0.017
1	BS 30D	0.745	0.348	0.029	0.010	0.301	0.116	0.191	3.93	0.101	0.342	0.0168	0.0189	1.077	17.73	0.0123
1	IARM 281A	0.74	0.30	0.015	0.019	0.29	0.096	0.15	3.89	4.8	0.49	0.0064	0.004	0.90	17.6	0.007
1	SS 486/1	0.74	0.21	0.029	0.021	0.27	(0.06)	0.27	4.54	0.08	5.20	.	.	1.82	5.80	(0.005)
1	IARM 40C	0.72	1.91	0.014	0.012	0.32	0.142	0.255	0.99	0.010	1.27	0.0083	0.008	0.010	0.009	(0.019)
1	14X HS1C	0.72	0.29	0.018	0.020	0.23	0.07	0.28	4.00	0.25	0.36	0.023	.	1.04	17.2	.
3	CZ HS-1A	0.72	0.28	0.023	0.011	0.28	0.08	0.14	4.15	4.7	0.06	.	0.003	1.33	17.5	0.03
1	IARM 43B	0.711	0.56	0.008	0.013	0.251	0.180	1.39	0.651	0.012	0.206	0.0093	0.0047	0.0035	<0.005	0.021
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Ti	V	W	Al
2	BS 40B	0.71	2.28	0.020	0.006	0.35	0.076	0.089	1.18	0.020	1.07	0.0076	0.002	0.10	0.11	0.002
3	CZ CM-10A	0.694	1.00	0.040	0.022	0.817	0.31	2.38	5.48	0.114	1.234	.	0.0189	0.908	0.96	0.086
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	SS 481/1	0.68	0.25	0.023	0.022	0.15	(0.09)	0.09	3.40	0.31	0.28	.	.	0.56	14.0	.
1	IARM 40B	0.68	1.98	0.012	0.003	0.39	0.050	0.096	1.04	0.015	1.22	0.0107	0.003	0.014	0.013	(0.006)
2	BS 39B	0.67	0.62	0.009	0.019	0.214	0.163	1.45	0.79	(0.02)	0.17	.	.	(0.01)	.	(0.011)
1	SS 482/1	0.67	0.26	0.027	0.027	0.14	(0.16)	0.16	3.95	0.29	0.40	.	.	1.04	17.8	.
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)	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	0.036	0.41	0.0081	0.007	0.214	0.004	0.015
1	ECRM 179-2D	0.598	0.539	0.027	(0.0006)	0.578	0.111	0.078	1.081	(0.0153)	0.070	0.0068	0.0014	0.188	1.87	.
1	IARM 47B	0.59	0.79	0.017	0.006	1.96	0.17	0.090	0.23	0.007	0.20	0.0092	0.010	0.17	(0.016)	0.014
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	.
2	BS 33D	0.515	0.31	0.016	0.020	0.312	0.040	0.059	1.28	0.045	0.050	.	.	0.22	2.65	0.008
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	.
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	0.99	0.007	0.007	0.84	0.11	0.194	3.27	0.011	1.03	0.0077				

TOOL STEEL CONTINUED FROM THE PREVIOUS PAGE

Number	Als	As	B	Ca	Nb	O	Pb	Sb	Sn	Ta	Zr	Units
BS PM15	.	0.0040	(0.0002)	(0.0001)	0.014	0.0129	(0.00001)	(0.0010)	0.0034	(0.0003)	(0.0005)	38 mm Ø x 19+ mm 17025
BS 10V	38 mm Ø x ~7 or 12, or 19 mm last
DSZU C070	~40 mm Ø x ~15 mm
BS A-11 Fe:79.5	0.0057	0.0008	(0.0002)	(0.0070)	0.028	(0.00006)	(0.001)	0.0055	.	(0.001)	.	38 mm Ø x ~7 or 19+ mm 17025
DSZU C082	~35 mm Ø x 25 mm
ECRM 288-1D	.	(0.0065)	.	.	.	.	.	.	.	.	.	36-41 mm Ø x 28-35 mm
DSZU C080	~35 mm Ø x 25 mm
BS 37G	.	0.0026	0.0003	0.0014	0.0026	0.002	0.0005	0.0009	0.0010	.	.	34 mm Ø x ~7 or 19+ mm
BS TS15	(0.006)	(0.0005)	(0.001)	0.009	(0.018)	(0.0026)	(0.000064)	(0.0002)	(0.0010)	.	(0.003)	38 mm Ø x ~7 or 19+ mm 17025
ECRM 274-1D	.	(0.0013)	(0.0005)	.	.	.	.	.	.	.	.	38 mm Ø x 25 mm
CT D2	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)	31 mm Ø x 2 or 18 mm
BS 41A	.	0.002	0.0006	.	.	.	.	.	0.002	.	.	38 mm Ø x ~7 or 19+ mm 25(pre-17025)
IARM 45B	.	(0.002)	(0.0001)	(0.001)	(0.002)	(0.0005)	(0.001)	0.008	.	.	(0.001)	31 mm Ø x 2 or 18 mm
BS 41	42 mm Ø x 19+ mm 17025 last
BS A-10	40 mm Ø x ~7 or 19+ mm
IARM 251A	.	0.016	(0.002)	(0.0005)	0.016	(0.01)	(0.002)	.	0.011	.	(0.002)	31 mm Ø x 2 or 18 mm
IARM 45A	.	(0.003)	(0.0001)	.	0.002	(0.0017)	(<0.005)	.	0.005	.	.	31 mm Ø x 2 mm
DSZU C073	~40 mm Ø x ~15 mm
CT X27081	30-35 mm Ø x ~16 mm last
DSZU C072	~40 mm Ø x ~15 mm
CZ HS-2A	0.01	.	.	~39 mm Ø x 25 mm
DSZU C077	~40 mm Ø x ~15 mm
DSZU C075	~40 mm Ø x ~15 mm
BS M-47	0.006	.	(0.002)	(0.004)	0.0037	.	.	.	0.006	.	.	38 mm Ø x ~7 or 19+ mm 17025
IMZ 102/3	.	.	(0.0007)	.	.	.	.	.	.	.	(0.007)	40 mm Ø x 40 mm
DSZU C074	~40 mm Ø x ~15 mm
DSZU C071	~40 mm Ø x ~15 mm
SS 487/1	.	(0.012)	.	.	.	.	.	.	(0.006)	.	.	38 mm Ø x 19 mm
DSZU C081	~35 mm Ø x 25 mm
CT M7	30-35 mm Ø x ~16 mm
JK 49D	47 mm Ø x 15 mm
IARM 39B	0.006	.	.	.	0.004	.	.	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)	31 mm Ø x 2 or 18 mm
BS 36D	.	0.002	.	.	.	.	.	.	0.016	.	.	38 mm Ø x ~7 or 19+ mm
CT A2	30-35 mm Ø x ~16 mm
SS 485/1	.	(0.022)	.	.	.	.	.	.	0.019	.	.	38 mm Ø x 19 mm
IARM 320A	.	0.013	0.0011	.	(0.015)	(0.0021)	.	.	0.008	.	(0.003)	31 mm Ø x 2 or 18 mm
CT O1	30-35 mm Ø x ~16 mm
ECRM 290-1D	36-41 mm Ø x 28-35 mm
CT M10	30-35 mm Ø x ~16 mm
BS 35D	(0.001)	.	.	.	0.006	.	.	38 mm Ø x ~7 or 19+ mm 17025
IARM 304A	.	(0.01)	0.002	(0.002)	0.021	0.002	(0.001)	0.006	(0.002)	(0.002)	(0.002)	31 mm Ø x 2 or 18 mm
14X 14946	~40 mm Ø x ~15 mm
BS 32D	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)	31 mm Ø x 2 or 18 mm
SRM 1157	32 mm Ø x 19 mm
BS M-50	0.0035	(0.0001)	(0.001)	0.0008	0.0010	(0.0001)	(0.0006)	0.0045	Fe:88.8	(0.0006)	.	38 mm Ø x ~7 or 19+ mm 17025
14X 14948C	40 mm Ø x 15 mm last of stock
CT M2	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)	.	31 mm Ø x 2 or 18 mm
CT M1	30-35 mm Ø x ~19 mm
IARM 48C	.	0.012	(0.001)	.	(0.005)	(0.003)	(0.0004)	(0.002)	0.012	(0.01)	(0.003)	31 mm Ø x 2 or 18 mm
BS 30D	0.0128	(0.0002)	0.0004	0.0071	0.0019	(0.0002)	0.0032	0.0246	(0.02)	(0.0001)	.	38 mm Ø x ~7 or 19+ mm 17025
IARM 281A	.	(0.02)	(0.003)	.	0.094	(0.003)	.	.	0.02	.	(0.002)	31 mm Ø x 2 or 18 mm
SS 486/1	.	(0.016)	.	.	.	.	.	.	0.014	.	.	38 mm Ø x 19 mm
IARM 40C	.	0.008	0.0009	(0.001)	0.003	0.0013	.	.	0.008	.	(0.002)	31 mm Ø x 2 or 18 mm
14X HS1C	(0.035)	.	.	40 mm Ø x ~15 mm
CZ HS-1A	0.02	.	.	~39 mm Ø x 25 mm
IARM 43B	.	0.005	0.0002	.	0.004	0.0016	<0.0005	.	0.013	.	.	31 mm Ø x 2 or 18 mm
Number	Als	As	B	Ca	Nb	O	Pb	Sb	Sn	Ta	Zr	Units
BS 40B	.	0.004	0.0006	.	.	.	.	.	0.005	.	.	41 mm Ø x ~7 or 19+ mm
CZ CM-10A	.	0.03	0.05	.	.	.	.	.	0.062	.	.	~39 mm Ø x 25 mm
DSZU C076	~40 mm Ø x ~15 mm
SS 481/1	38 mm Ø x 19 mm last of stock
IARM 40B	.	.	(0.0010)	.	0.005	(0.0014)	.	.	0.004	.	.	31 mm Ø x 2 or 18 mm
BS 39B	(0.011)	.	.	41 mm Ø x ~7 or 19+ mm 17025
SS 482/1	36 mm Ø x 19 mm
DSZU C078	~40 mm Ø x ~15 mm
SS 483/1	38 mm Ø x 19 mm
BS 38C	.	0.011	.	.	(0.002)	.	0.022	.	0.022	.	.	38 mm Ø x ~7 or 19+ mm
ECRM 179-2D	.	.	(<0.001)	.	(0.002)	(0.0014)	(0.0003)	.	0.008	.	.	30 to 35 mm Ø x 20 mm
IARM 47B	31 mm Ø x 2 or 18 mm
DSZU C079	~35 mm Ø x 25 mm
BS 33D	0.005	.	.	41 mm Ø x 12 mm
BS 33E	38 mm Ø x 12 mm
CT X67975	<0.001	.	0.003	.	.	30-35 mm Ø x ~16 mm
IARM 259A	.	0.006	0.0003	.	0.003	0.0014	<0.0005	.	0.004	.	0.001	31 mm Ø x 2 or 18 mm
BS D-6	0.011	(0.0003)	0.0011	(0.002)	(0.0008)	(0.0003)	.	0.0012	0.0104	Mg: 0.0002	.	38 mm Ø x ~7 or 19 mm 17025
IMZ 57/1	0.003	0.002	<0.002	.	0.016	.	.	40 mm Ø x 40 mm
IARM 46B	.	(0.01)	0.0003	.	0.003	0.002	.	.	.	.	.	31 mm Ø x 2 or 18 mm
IMZ 53/1	40 mm Ø x 40 mm
IMZ 56/1	40 mm Ø x 40 mm
BS H-19	0.0056	.	.	.	0.008	0.0071	.	.	0.0056	.	.	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	31 mm Ø x 2 or 18 mm
BS H-13	0.0066	(0.0002)	(0.0003)	(0.0004)	0.0018	(0.0003)	0.0020	0.0093	(0.003)	(0.0014)	.	38 mm Ø x ~7 or 19 mm 17025
IMZ 58/1	40 mm Ø x 40 mm
IMZ 51/1	40 mm Ø x 40 mm
ECRM 276-2D	0.0133	.	.	38 mm Ø x 25 or 30 mm
CT H13	(0.006)	.	.	(0.006)	.	.	30-35 mm Ø x ~16 mm
IARM 255B	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)	(0.002)	31 mm Ø x 2 or 18 mm
ECRM 271-1D	.	0.0057	.	0.0009	.	0.0020	.	.	0.0084	.	.	35 mm Ø x 25 mm
BS 49	(0.004)	.	.	49 mm Ø x ~7 or 19+ mm
BS 9-4-30	35 mm Ø x ~7 or 19+ mm
IARM 341A	.	(0.003)	0.0005	0.0011	(0.005)	0.0008	(0.001)	(0.001)	(0.005)	.	(0.003)	31 mm Ø x 2 or 18 mm
IMZ 196	.	.	0.065	.	0.073	.	.	.	.	.	.	37 mm Ø x 30 mm
IMZ 170	0.087	.	.	(0.002)	0.007	.	.	40 mm Ø x 40 mm
CZ CM-17A	0.0105	0.0060	.	.	.	.	0.0177	.	0.0109	.	.	~37 mm Ø x ~25 mm
VS LG43/1	~45 mm Ø x ~28 mm
IMZ 197	.	.	(0.007)	.	(0.011)	.	.	.	0.015	.	.	37 mm Ø x 30 mm
NCS HS20741	35 mm Ø x 40 mm
VS LG42/1	~45 mm Ø x ~28 mm
VS LG37/1	~45 mm Ø x ~28 mm
IMZ 179	.	(0.007)	.	.	(0.004)	.	.	.	0.010	.	.	40 mm Ø x 40 mm
IMZ 157	40 mm Ø x 40 mm
NCS HS20742	35 mm Ø x 40 mm
IMZ 177	0.008	.	.	40 mm Ø x 40 mm
13X 14713A	.	.	.	Mg:0.0016	.	.	.	.	0.0034	.	.	~40 mm Ø x ~15 mm
SS 422	.	.										

ALUMINUM IN STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM and 2 = RM

#	Number	Al	Ni	Cr	C	Mn	P	S	Si	Cu	Co	Mo	N	Nb	Ti	V
1	ECRM 299-1D	5.33	0.172	22.32	0.0154	0.2678	0.0152	0.00022	0.299	0.0382	0.0187	0.0186	0.0198	.	0.1289	0.0329
1	IMZ 158	1.56	0.24	25.51	0.091	1.34	0.015	0.007	2.23	0.097	.	0.025	.	.	0.12	0.078
1	13X PH17700A	1.172	6.98	16.88	0.0732	0.496	0.0181	0.0008	0.551	0.146	0.0464	0.340	0.0192	0.0201	0.051	0.0390
1	BS 192	1.17	7.11	16.44	0.074	0.835	0.025	0.0005	0.387	0.412	0.104	0.430	0.0290	0.168	0.076	0.124
2	CT X92834	1.14	8.32	12.57	0.035	0.044	0.003	0.003	0.019	0.030	0.030	2.20	.	0.001	0.019	<0.004
1	IARMPe177PH-18	1.09	7.11	17.08	0.080	0.730	0.020	(0.0005)	0.51	0.36	0.048	0.350	0.0153	0.009	0.083	0.062
1	13X PH13800A	1.075	8.04	12.53	0.0386	0.0332	0.0064	0.0030	0.081	0.0449	0.0220	2.10	0.0041	.	0.0122	0.0188
2	BS 184A	1.00	8.34	12.66	0.035	0.06	0.007	0.001	0.080	0.041	0.036	2.20	0.0045	(0.006)	0.051	0.014
1	BS 192A	0.98	7.01	16.44	0.066	0.768	0.021	<0.002	0.300	0.334	0.114	0.28	0.029	0.208	0.083	0.077
1	IARM 152C	0.94	7.30	16.99	0.072	0.74	0.024	0.0006	0.263	0.316	0.113	0.36	0.0172	0.012	0.098	0.072

Number	As	B	Ca	O	Sn	Ta	W	Zr	Units
ECRM 299-1D	0.0054	0.0002	.	.	.	.	.	0.1775	40 mm Ø x 25 mm
IMZ 158	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
13X PH17700A	.	0.0033	.	.	0.0055	.	0.009	.	-38 mm Ø x -15 mm
BS 192	(0.005)	(0.0003)	0.0007	0.0014	0.008	(0.001)	0.05	.	38 mm Ø x ~7 or 19+ mm
CT X92834	.	0.0009	.	.	0.002	.	.	<0.001	30-35 mm Ø x x ~19 mm
IARM Fe177PH-18	.	(0.0017)	.	.	(0.006)	.	(0.011)	.	31 mm Ø x 2 or 18 mm
13X PH13800A	.	.	.	.	0.0051	.	.	.	-38 mm Ø x ~15 mm
BS 184A	.	(0.0004)	(0.0003)	(0.0003)	(0.002)	.	0.032	.	38 mm Ø x ~7 or 19+ mm
BS 192A	(0.0035)	(0.0003)	(0.0006)	(0.0006)	0.008	.	0.048	.	38 mm Ø x ~7 or 19+ mm
IARM 152C	(0.004)	0.0029	(0.0005)	(0.001)	0.007	(0.005)	0.026	.	31 mm Ø x 2 or 18 mm

CRM BORON IN STAINLESS STEEL

35 mm x 45 mm x 16 mm

Number	B	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Ti	V	W
DSZU C61	2.14	(0.073)	(0.38)	(0.003)	(0.005)	(0.41)	(0.09)	(0.95)	(17.8)	(0.04)	(0.24)	(0.75)	(0.19)	(0.22)
DSZU C60	1.42	(0.058)	(0.50)	(0.002)	(0.006)	(0.35)	(0.01)	(0.51)	(11.9)	(0.11)	(0.37)	(2.70)	(0.41)	(0.20)
DSZU C62	1.15	(0.065)	(0.31)	(0.010)	(0.024)	(0.32)	(0.24)	(0.84)	(14.4)	(0.59)	(0.16)	(3.36)	(0.18)	(0.14)
DSZU C63	1.05	(0.070)	(0.27)	(0.014)	(0.006)	(0.30)	(0.39)	(0.48)	(11.3)	(0.25)	(0.09)	(0.70)	(0.08)	(0.10)

CALCIUM IN STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM and 2 = RM

#	Number	Ca	Ni	Cr	C	Mn	P	S	Si	Cu	Co	Mo	N	Nb	V	W
1	BS Ca304-4	0.0075	8.77	18.26	0.096	0.783	0.0205	0.0070	0.887	0.143	(0.007)	0.0041	0.061	0.063	0.0686	0.0056
2	BS CA304-1	0.0045	8.57	18.30	0.045	1.06	0.026	0.016	0.71	0.34	0.20	0.34	0.083	0.026	0.09	0.04
1	13X 14923A	0.0044	0.452	11.26	0.205	0.501	0.0197	0.0031	0.330	0.0563	0.0207	0.819	0.0321	0.005	0.295	.
1	ECRM 379-1D	0.0033	30.83	26.79	0.0121	1.804	0.0166	0.0006	0.393	0.984	0.0390	3.290	0.0550	(0.0028)	0.0663	(0.0091)
1	13X 31603C	0.0029	10.03	16.83	0.023	1.879	0.0263	0.0245	0.350	0.306	0.148	2.02	0.080	0.0197	0.0895	0.0427
2	BS 193	0.0020	1.82	18.48	0.104	12.11	0.018	0.002	0.66	0.088	0.028	0.21	0.37	0.014	0.107	(0.007)
2	BS SS4952	0.0019	0.23	13.15	0.347	0.41	0.016	0.003	0.66	0.045	0.030	0.049	0.027	0.004	0.089	(0.007)
2	BS 82E	0.0014	12.49	22.38	0.062	1.61	0.027	0.001	0.58	0.26	0.12	0.31	0.072	0.062	0.064	0.041
1	BS 9942	0.0014	13.55	18.21	0.021	1.84	0.025	0.006	0.49	0.305	0.086	3.30	0.071	0.005	0.072	0.032
1	BS 9842	0.0010	20.02	24.19	0.059	1.50	0.025	0.0016	0.99	0.147	0.237	0.111	0.037	0.026	0.075	0.011
1	ECRM 272-1D	0.00090	0.2445	11.927	0.2815	0.600	0.0156	0.0196	0.420	0.0192	0.0145	0.0030	0.0508	0.0028	0.0167	.
2	BS 94C	0.0008	0.43	25.90	0.057	0.45	0.024	0.002	0.62	0.056	0.042	0.20	0.065	0.032	0.12	(0.03)
2	BS 82D	0.0007	14.12	22.40	0.058	1.85	0.020	0.009	0.63	0.16	0.042	0.144	0.070	0.053	0.087	0.028
2	BS 87F	0.0007	10.12	17.30	0.055	1.64	0.024	0.025	0.67	0.28	0.17	0.29	0.037	0.57	0.13	0.050
2	BS SS3951	0.0005	9.18	18.17	0.014	1.56	0.023	0.031	0.61	0.22	0.16	0.303	0.077	0.085	0.067	0.040

Number	Al	As	B	O	Pb	Sb	Sn	Ti	Zn	Units
BS Ca304-4	0.017	0.0063	0.0031	0.013	0.0008	(0.0002)	0.0024	0.0046	Zr:0.0036	~38 mm Ø x ~38mm
BS CA304-1	0.003	(0.003)	0.0006	0.0041	.	(0.0020)	0.010	0.028	.	38 mm Ø x ~5 mm last, sides not parallel
13X 14923A	0.003	.	.	.	.	.	0.004	.	.	~40 mm Ø x ~15 mm
ECRM 379-1D	(0.00246)	(0.0018)	0.00190	(0.0027)	(0.000038)	0.00057	0.0021	(0.0014)	.	38 or 45 mm Ø x 25 mm
13X 31603C	(0.005)	.	.	.	.	.	0.0053	.	.	~30 mm Ø x ~20 mm
BS 193	(0.003)	.	0.0007	(0.004)	.	.	0.004	0.003	.	32 mm Ø x ~7 or 19+ mm
BS SS4952	0.003	0.002	(0.0004)	0.005	.	.	0.004	0.002	.	38 mm Ø x ~7 or 19+ mm
BS 82E	0.006	.	0.0024	.	.	.	0.006	0.003	.	38 mm Ø x ~7 or 19+ mm
BS 9942	0.004	(0.004)	0.0014	(0.0023)	.	.	0.006	(0.002)	.	44 mm Ø x ~7 or 19+ mm
BS 9842	0.014	(0.002)	0.0025	(0.0044)	.	.	0.005	0.003	.	38 mm Ø x ~7 or 19+ mm
ECRM 272-1D	0.0046	0.0116	0.0018	.	.	0.0007	.	0.00096	0.0031	38 mm Ø x 25 or 30 mm
BS 94C	0.004	.	(0.0005)	0.0061	.	.	0.006	.	.	44 mm Ø x ~7 or 19+ mm
BS 82D	(0.002)	.	0.0040	0.007	.	.	0.004	0.005	.	38 mm Ø x ~7 or 19+ mm last
BS 87F	0.004	0.005	(0.0006)	0.005	.	.	0.004	0.004	.	41 mm Ø x ~7 or 19+ mm
BS SS3951	0.002	.	(0.0006)	0.0075	.	.	0.007	(0.002)	.	41 mm Ø x ~7 or 19+ mm

MARAGING STEEL AND COBALT IN STAINLESS AND HIGH ALLOY STEEL

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

#	Number	Co	Mo	Ni	Cr	C	Mn	P	S	Si	Cu	Al	B	N	Nb	Ti
1	IARM 326A	48.4	(0.002)	0.037	(0.002)	(0.002)	0.003	0.0013	0.0011	0.029	(0.002)	(0.003)	(0.001)	0.0004	0.038	(0.002)
2	CT ISO070A	29.00	0.006	24.47	5.54	0.014	0.015	0.003	<0.001	0.32	0.010	0.47	0.0038	.	4.63	0.82
1	IMZ 521	20.25	4.84	8.63	0.040	0.015	0.039	0.0031	0.0058	0.072	0.027	.	.	0.0113	.	.
1	IMZ 522	18.72	6.45	11.47	0.022	0.0088	0.032	(0.003)	0.0043	0.048	0.019	.	.	0.0045	(0.008)	0.54
1	IMZ 520	17.66	4.92	10.10	0.242	0.011	0.070	0.0043	0.019	0.094	0.080	.	(0.001)	0.0105	(0.008)	(0.007)
1	IARM 98B	17.0	0.010	29.4	0.012	0.007	0.18	0.002	0.0007	0.17	0.028	0.07	0.001	0.0024	0.002	0.03
1	IMZ 523	14.44	6.67	15.94	0.048	0.0098	0.051	(0.004)	0.0039	0.043	0.059	.	.	0.0037	(0.008)	0.70
1	IARM 242A	13.5	1.21	11.1	3.00	0.24	0.018	0.002	0.0004	0.02	0.007	0.004	(0.0005)	0.0003	0.004	0.009
2	CT ISO045A	13.39	1.18	11.38	3.12	0.228	0.002	0.001	0.0004	<0.010	0.006	0.004	.	.	.	0.005
1	IARM 309A	12.3	4.71	18.4	0.053	0.0059	0.018	0.004	0.0006	0.020	0.023	0.11	0.0032	0.0010	0.004	1.47
1	IMZ 524	12.25	4.95	13.75	0.085	0.012	0.68	(0.004)	0.004	0.13	0.024	.	.	0.0038	(0.007)	0.85
1	DSZU C093	12.08	3.79	15.80	0.42	0.013	0.32	(0.006)	(0.007)	(0.10)	(0.12)	0.17	.	.	.	1.56
1	BS 161A	9.22	4.82	18.40	0.12	0.004	0.031	0.004	0.0007	0.032	0.22	0.14	0.0023	(0.002)	(0.004)	0.65
2	CT 300	9.07	4.97	18.51	0.034	0.005	0.032	0.005	0.004	0.030	0.047	0.12	0.0020	.	.	0.69
1	13X 14934Q	9.03	4.22	17.60	0.388	0.0254	0.254	0.024	0.0288	0.502	.	0.15	.	0.0132	.	0.694
1	DSZU C091	8.07	4.98	18.20	0.12	0.035	0.092	(0.006)	(0.011)	(0.09)	(0.12)	0.05	.	.	.	0.81
1	IARM 308A	7.80	4.78	18.53	0.023	0.003	0.019	0.004	0.0005	0.014	0.018	0.097	0.0029	0.0013	0.003	0.46
1	ECRM 285-2D	7.76	4.99	18.07	0.0236	0.0018	0.0168	0.0053	0.0025	0.0117	0.0094	0.1067	0.0009	0.0007	.	0.520
2	CT 250	7.54	4.88	18.44	0.008	0.002	0.006	0.003	0.002	0.008	0.008	0.058	0.0024	.	.	0.41
1	13X 14935T	7.17	5.61	18.96	0.745	0.0105	0.494	0.036	0.055	0.441	.	(0.007)	.	0.0102	.	0.106
3	DSZU C55	6.5	1.25	2.34	14.1	0.23	0.69	0.033	0.023	0.70	.	.	.	0.11	0.29	.
3	DSZU C53	5.9	1.88	0.96	15.0	0.10	0.54	0.050	0.031	0.25	.	.	.	.	0.12	.
3	DSZU C54	5.3	1.45	1.95	18.4	0.07	0.55	0.040	0.020	0.54	.	.	.	0.13	0.41	.
1	DSZU C092	5.21	5.50	20.12	0.23	0.015	0.27	(0.006)	(0.009)	(0.10)	(0.16)	(0.006)	.	.	.	(0.008)
3	DSZU C51	4.7	0.72	1.78	11.0	0.20	0.40	0.017	0.036	0.24	.	.	.	0.090	0.12	.
3	DSZU C52	3.8	1.17	1.55	11.6	0.14	0.37	0.020	0.028	0.17	.	.	.	.	0.31	.
1	BS 85D	0.97	0.59	9.98	17.09	0.048	1.69	0.024	0.024	0.54	0.45	0.13	(0.001)	(0.02)	0.062	0.48

Number	As	Ca	Fe	Mg	O	Sb	Sn	Ta	V	W	Zr	Units
IARM 326A	<0.005	.	49.6	(0.001)	0.0082	.	<0.001	(0.01)	1.94	(0.001)	0.002	31 mm Ø x 2 mm Fe: 49.6
CT ISO070A	.	.	34.66	.	.	.	.	<0.01	0.043	<0.01	.	30-35 mm Ø x ~16 mm
IMZ 521	(0.002)	.	3.97	5.23	.	38 mm Ø x 20 mm
IMZ 522	(0.001)	.	2.21	2.25	.	38 mm Ø x 20 mm
IMZ 520	(0.002)	.	4.03	4.90	.	38 mm Ø x 20 mm
IARM 98B	<0.002	<0.0005	52.9	0.0040	0.0021	.	0.002	<0.05	(0.003)	(0.02)	<0.01	31 mm Ø x 2 mm
IMZ 523	(0.001)	.	2.01	1.87	.	38 mm Ø x 20 mm
IARM 242A	0.0006	.	(0.001)	0.008	0.01	<0.01	.	31 mm Ø x 2 mm
CT ISO045A	.	.	70.70	.	.	.	.	.	.	.	.	30-35 mm Ø x ~19 mm
IARM 309A	0.0005	.	(0.001)	(0.006)	0.01	0.01	0.008	31 mm Ø x 2 or 18 mm
IMZ 524	(0.003)	.	.	.	.	.	.	.	3.02	1.84	.	38 mm Ø x 20 mm
DSZU C093	~40 mm Ø x 17 mm
BS 161A	(0.002)	(0.0008)	25(pre-17025)	(0.0004)	(0.0004)	.	(0.0015)	(0.03)	0.031	(0.008)	(0.002)	38 mm Ø x ~7 or 19+ mm
CT 300	30-35 mm Ø x ~16 mm
13X 14934Q	40 mm Ø x 15 mm
DSZU C091	~40 mm Ø x 17 mm
IARM 308A	0.0005	.	0.001	<0.01	0.01	0.01	0.01	31 mm Ø x 2 or 18 mm
ECRM 285-2D	0.0050	38 mm Ø x 25 or 30 mm
CT 250	30-35 mm Ø x ~19 mm
13X 14935T	40 mm Ø x 15 mm
DSZU C55	0.16	1.1	.	42 mm Ø x 25 mm
DSZU C53	0.25	0.58	.	42 mm Ø x 25 mm
DSZU C54	0.40	0.62	.	42 mm Ø x 25 mm
DSZU C092	~40 mm Ø x 17 mm
DSZU C51	0.08	0.32	.	42 mm Ø x 25 mm
DSZU C52	0.03	0.95	.	42 mm Ø x 25 mm
BS 85D	(0.01)	0.0004	[67.8]	.	(0.002)	(0.001)	0.0062	(0.001)	0.132	(0.07)	(0.004)	38 mm Ø x ~7 or 19+ mm 17025

TUNGSTEN IN STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM and 2 = RM

#	Number	W	Ni	Cr	C	Mn	P	S	Si	Cu	Co	Mo	N	Nb	Ti	V
1	VS LG57	4.24	25.2	13.70	0.016	0.52	0.011	0.0023	0.56	0.080	.	0.401	.	.	1.81	0.65
1	13X 14219K	4.17	12.66	21.46	0.0997	0.482	0.0401	0.0456	1.504	0.138	0.0475	0.169	.	0.140	.	0.0188
1	13X 14212S	3.68	8.81	21.64	0.119	0.166	0.032	0.0386	2.47	0.611	0.1090	0.520	0.0055	0.550	.	0.1175
1	IARM 20B	3.52	1.94	12.42	0.18	0.35	0.019	0.004	0.40	0.069	0.030	0.32	0.0434	0.010	0.004	0.17
1	13X 14211Q	3.24	12.55	25.70	0.064	0.766	0.0157	0.0146	1.64	0.161	0.071	0.325	.	0.161	0.220	.
1	VS LG59	3.08	35.1	15.81	0.073	1.15	0.011	0.0083	0.63	0.083	.	0.094	.	0.106	1.12	0.273
1	113X 14215L	3.02	15.86	22.89	0.136	1.110	0.0050	0.0068	0.596	0.0110	0.0057	0.0048	.	0.0196	.	0.0480
2	BS 183A	2.60	1.85	12.14	0.172	0.35	0.016	0.0040	0.37	0.093	0.036	0.12	0.0256	0.006	0.002	0.090
1	IARM 20C	2.59	1.93	12.15	0.18	0.30	0.018	0.007	0.35	0.060	0.031	0.12	0.0222	0.010	(0.003)	0.086
1	IMZ 161	1.05	0.55	12.90	0.074	0.29	0.023	0.023	0.65	0.56	.	1.10	.	.	.	0.33

Number	Al	As	B	Ca	O	Sb	Sn	Units
VS LG57	0.151	.	.	.	.	.	.	~47 mm Ø x ~30 mm
13X 14219K	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X 14212S	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
IARM 20B	0.006	.	.	.	0.0056	.	0.005	31 mm Ø x 2 mm
13X 14211Q	(0.11)	.	.	.	.	.	.	~40 mm Ø x ~15 mm
VS LG59	0.079	.	.	.	.	.	.	~47 mm Ø x ~30 mm
13X 14215L	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
BS 183A	0.002	(0.002)	(<0.0005)	0.0020	0.0065	(0.001)	0.003	38 mm Ø x ~7 or 19+ mm
IARM 20C	(0.004)	.	.	.	0.0068	.	0.004	31 mm Ø x 2 or 18 mm
IMZ 161	.	.	.	.	.	.	.	40 mm Ø x 40 mm

MANGANESE STAINLESS STEEL

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

* Provisional Analysis

Table with columns: # Number, Mn, Ni, Cr, C, P, S, Si, Cu, Mo, Al, Co, N, Nb, V, W. Rows include various material grades like 1 IARM 294A, 1 IARM 295A, 1 ECRM 294-1D, etc.

Table with columns: Number, As, B, Ca, O, Pb, Sb, Sn, Ta, Te, Ti, Zr, Units. Rows include material grades like IARM 294A, IARM 295A, ECRM 294-1D, etc.

CRM NICKEL BINARIES

analysis listed in mass %

-40 mm Ø x -15 mm

Table with columns: Number, Ni, C, Mn, P, S, Si, Cu, Cr, Al, Co, N, Mg, Mo, Nb, Ti, W. Rows include material grades like 14X FeNi50C, 14X FeNi45C, 14X 94100A, etc.

SULFUR AND PHOSPHORUS IN STAINLESS AND HIGH ALLOY STEEL

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

#	Number	S	P	Ni	Cr	C	Mn	Si	Cu	Al	Co	Mo	N	Nb	Ti	V
2	CT 416	0.36	0.018	0.24	13.15	0.088	0.52	0.63	0.004	.	0.019	0.065	0.020	.	.	0.025
1	IARM 10D	0.334	0.0178	0.291	12.42	0.110	1.11	0.475	0.192	(0.0027)	0.0187	0.148	0.0241	0.0027	0.0015	0.051
2	BS 150	0.33	0.020	0.19	18.61	0.048	1.71	0.43	0.042	0.002	0.024	1.97	0.029	0.003	.	0.054
1	SRM 1223	0.329	0.018	0.232	12.64	0.127	1.08	0.327	0.081	.	.	0.053	.	.	.	0.068
2	BS 90F	0.328	0.023	0.30	13.01	0.085	0.53	0.58	0.12	(0.006)	0.021	0.14	0.037	0.011	.	0.076
1	BS 303	0.326	0.028	8.17	17.23	0.044	1.80	0.415	0.627	0.0019	0.071	0.410	0.023	0.008	0.017	0.056
1	13X 30300A	0.312	0.0205	8.60	17.62	0.041	1.83	0.422	0.025	.	0.0255	0.334	0.034	.	.	0.091
2	CT 303	0.31	0.029	9.08	17.78	0.070	1.64	0.58	0.49	.	0.16	0.41	.	.	.	0.044
1	IARM 355A	0.31	0.0186	0.427	17.81	0.0274	0.47	0.435	0.083	0.0016	0.047	0.337	0.0439	0.0095	0.0020	0.038
2	BS 154	0.302	0.027	0.25	17.58	0.030	0.40	1.26	0.063	(0.002)	0.019	0.31	0.039	0.005	.	0.046
2	13X 12549K	0.29	0.092	1.26	11.70	0.16	0.34	0.43	0.10	.	0.52	1.49	.	0.23	.	.
2	BS 153	0.280	0.018	0.140	17.38	0.026	0.41	0.53	0.052	0.002	0.017	0.30	0.021	0.002	(0.004)	0.045
2	BS 152	0.275	0.022	0.14	13.41	0.320	0.36	0.44	0.050	(0.002)	0.015	0.061	0.020	0.006	.	0.051
3	CZ SP-1A	0.26	0.024	8.6	17.7	0.047	1.87	0.33	0.52	0.004	0.095	0.42	.	0.012	0.02	0.058
1	13X 12548M	0.219	0.027	1.075	12.96	0.188	0.577	0.425	0.230	.	0.353	1.318	0.0500	0.586	.	.
1	IARM 352A	0.21	0.0182	0.269	13.11	0.341	1.13	0.357	0.148	(0.0025)	(0.016)	0.38	0.029	(0.012)	0.0015	0.028
1	13X 43020A	0.189	0.0246	0.517	16.07	0.147	1.439	0.415	0.0687	0.0047	0.0191	0.226	0.0212	0.0102	.	0.0542
1	IMZ 154	0.16	0.040	9.86	17.71	0.076	2.18	0.89	0.33	(0.16)	0.105	2.58	.	1.00	0.073	
1	NCS HS41751A	0.16	0.035	8.07	17.41	0.075	1.70	0.71	0.26	.	0.13	0.33	0.077	.	.	0.068
2	BS 155	0.145	0.014	0.13	16.64	1.00	0.35	0.40	0.035	(0.001)	0.019	0.46	0.032	0.002	.	0.10
1	13X 12536S	0.136	0.052	12.07	15.30	0.149	0.406	0.865	0.065	0.049	0.298	2.54	0.062	.	0.105	.
1	13X 12535BE	0.0591	0.0400	14.79	16.95	0.229	0.342	1.407	0.130	0.194	0.146	4.09	0.029	.	0.625	0.252
1	SRM C1154a	0.051	0.06	13.08	19.31	0.100	1.44	0.53	0.44	.	0.38	0.068	.	.	.	0.135
1	13X 19003C	0.046	0.0382	12.46	18.99	0.047	1.138	0.497	0.171	.	0.105	2.50	0.077	0.120	.	0.0486
1	VS LG58	0.0280	0.0135	4.26	23.4	0.48	0.99	0.292	0.388	.	.	2.41	.	0.214	0.039	0.264
1	VS LG60	0.0205	0.028	19.86	21.8	0.020	2.31	0.289	0.027	0.040	.	3.62	.	0.83	0.265	0.229
1	13X 18004B	0.0191	0.068	12.67	21.57	0.099	1.400	1.21	0.050	0.011	0.211	0.601	0.061	0.749	.	0.161
2	13X 19004B	0.014	0.069	17.9	22.8	0.066	1.96	0.36	0.022	.	.	3.62	.	0.18	.	.

Number	Ag	As	B	O	Pb	Sn	Ta	W	Units
CT 416	0.0002	.	.	.	<0.001	0.005	.	.	30-35 mm Ø x ~16 mm
IARM 10D	.	(0.007)	(0.002)	(0.005)	.	0.010	.	(0.005)	31 mm Ø x 2 or 18 mm
BS 150	.	.	.	0.012	.	(0.003)	.	0.01	35 mm Ø x ~7 or 19+ mm
SRM 1223	32 mm Ø x 19 mm
BS 90F	.	.	.	0.011	.	0.005	.	0.032	38 mm Ø x ~7 or 19+ mm
BS 303	.	.	0.0013	0.0058	.	0.0091	.	0.023	44 mm Ø x ~7 or 19+ mm 17025
13X 30300A	.	.	0.0035	.	.	.	.	.	~40 mm Ø x ~15 mm
CT 303	0.0003	.	.	.	0.001	0.007	.	.	30-35 mm Ø x ~16 mm
IARM 355A	.	(0.004)	(0.0011)	(0.010)	(0.0002)	(0.005)	.	(0.018)	31 mm Ø x 2 or 18 mm
BS 154	.	.	.	0.008	.	(0.005)	.	(0.01)	38 mm Ø x ~7 or 19+ mm
13X 12549K	40 mm Ø x 15 mm
BS 153	.	(0.004)	.	.	(0.001)	0.002	.	(0.002)	35 mm Ø x ~7 or 19+ mm
BS 152	0.003	.	<0.01	41 mm Ø x ~7 or 19+ mm
CZ SP-1A	.	0.006	0.0007	.	.	0.01	.	0.03	~39 mm Ø x 25 mm
13X 12548M	Sb:0.022	.	.	0.031	40 mm Ø x 15 mm
IARM 352A	.	(0.005)	(0.0007)	(0.005)	.	0.0046	.	(0.005)	31 mm Ø x 2 or 18 mm
13X 43020A	.	.	(0.0032)	.	.	.	.	0.0108	~40 mm Ø x ~15 mm
IMZ 154	40 mm Ø x 40 mm
NCS HS41751A	38 mm Ø x 38 mm
BS 155	.	.	.	0.0048	.	(0.003)	.	.	36 mm Ø x ~7 or 19+ mm
13X 12536S	.	.	0.0274	.	.	0.018	0.091	.	~40 mm Ø x ~15 mm
13X 12535BE	.	.	0.0051	.	.	0.0194	(0.020)	.	~40 mm Ø x ~15 mm
SRM C1154a	0.017	.	.	.	32 mm Ø x 19 mm
13X 19003C	(0.005)	.	~40 mm Ø x ~15 mm
VS LG58	0.21	~47 mm Ø x ~30 mm
VS LG60	0.115	~47 mm Ø x ~30 mm
13X 19004B	40 mm Ø x 15 mm
13X 18004B	~40 mm Ø x ~15 mm

SELENIUM IN STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM and 2 = RM

#	Number	Se	Ni	Cr	C	Mn	P	S	Si	Cu	Al	Co	Mo	N	Nb	Ti
2	BS 151	0.328	0.24	13.19	0.090	0.41	0.021	0.018	0.65	0.11	(0.002)	0.018	0.088	0.022	0.005	(<0.003)
2	BS 186A	0.229	35.86	0.16	0.040	0.72	0.008	0.0053	0.19	0.016	(0.001)	0.028	0.0032	0.0026	(<0.002)	(<0.003)
1	IARM 253A	0.21	9.17	17.90	0.041	1.50	0.140	0.0089	0.50	0.223	0.003	0.088	0.348	0.0373	0.016	0.002
1	IARM 24B	0.19	35.86	0.121	0.053	0.82	0.009	0.0010	0.28	0.052	0.002	0.036	0.011	0.0017	<0.01	0.002
1	IARM 353A	0.17	0.265	17.01	0.98	0.95	0.019	0.025	0.49	0.13	0.0018	0.032	0.50	0.027	(0.011)	0.0015
2	CT ISO124A	0.167	48.07	0.079	0.011	0.73	0.007	0.006	0.40	0.015	.	0.012	0.009	.	.	.
2	BS 156	0.142	0.35	16.87	1.06	1.15	0.022	0.007	0.47	0.09	(0.002)	0.047	0.50	0.041	0.005	0.001
1	IARM 253B	0.13	9.11	17.64	0.051	1.61	0.13	0.011	0.46	0.44	(0.004)	0.145	0.59	0.031	0.021	0.0027

Number	B	Fe	O	Sn	Ta	V	W	Zr	Units
BS 151	.	.	0.009	0.005	.	0.046	0.010	.	50 mm Ø x ~7 or 19+ mm
BS 186A	.	.	.	(0.002)	.	0.0012	(0.01)	.	38 mm Ø x ~7 or 19+ mm
IARM 253A	0.0003	.	0.009	0.01	.	0.106	0.10	.	31 mm Ø x 2 or 18 mm
IARM 24B	(0.001)	62.6	0.003	0.0018	<0.005	<0.005	<0.04	<0.005	31 mm Ø x 2 or 18 mm
IARM 353A	(0.0006)	.	(0.005)	0.0056	(0.004)	0.116	0.041	(0.002)	31 mm Ø x 2 or 18 mm
CT ISO124A	.	50.65	.	.	.	.	.	.	30-35 mm Ø x ~19 mm
BS 156	.	.	0.0045	(0.004)	.	0.13	0.11	.	41 mm Ø x ~7 or 19+ mm
IARM 253B	0.0007	.	0.007	(0.012)	(0.003)	0.092	(0.05)	.	31 mm Ø x 2 or 18 mm

= Class, 1=CRM, 2=RM, and 3=RM with no uncertainties analysis listed in mass % except * which is mg/Kg ** Provisional Analysis

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
1	14X HS10A	1.710	0.134	0.0135	0.0099	0.660	0.0605	0.146	14.83	0.0866	1.679	(0.001)			1.142	1.75
3	CZ SL-4A	1.38	2.85	0.038	0.017	2.28	0.75	2.04	26.3	0.11	0.92		1.11	0.8	0.54	0.35
2	BS 156	1.06	1.15	0.022	0.007	0.47	0.09	0.35	16.87	0.047	0.50	0.041	0.005	0.001	0.13	0.11
1	BS 93F	1.047	0.59	0.0266	(0.0025)	0.49	0.132	0.187	16.72	0.021	0.46	0.051	0.0029	0.0012	0.057	0.0016
1	13X 44004A	1.052	0.346	0.0214	0.0178	0.363	0.0548	0.207	16.74	0.0188	0.462	0.0247			0.076	0.030
1	IARM 13D	1.040	0.697	0.0195	0.0012	0.614	0.184	0.256	16.36	0.0212	0.488	0.0492	0.0074	0.0035	0.058	0.046
2	BS 155	1.00	0.35	0.014	0.015	0.40	0.035	0.13	16.64	0.019	0.46	0.032	0.002		0.10	
1	NCS HS41752	0.97	0.46	0.023	0.0016	0.48	0.082	0.192	17.61		0.057				0.088	
1	ECRM 291-1D	0.90	0.81	0.017	0.0088	0.91	0.071	0.56	17.15	0.0233	2.10	0.1142			0.39	
1	VS LG40/1	0.66	0.318	(0.02)	(0.006)	0.289	(0.15)	0.271	13.67		0.039				0.038	
1	VS LG39/1	0.406	0.64	(0.02)	(0.007)	0.94	(0.12)	0.42	13.11		0.136				0.135	
1	13X 14122A	0.356	0.480	0.0177	0.0021	0.449	0.066	0.332	15.91	0.0224	0.955	0.0290	0.006		0.101	0.004
1	IARM 154B	0.35	0.405	0.017	0.0004	0.45	0.087	0.223	12.20	0.020	0.079	0.020	0.003	0.002	0.067	0.010
2	BS SS4952	0.347	0.41	0.016	0.003	0.66	0.045	0.23	13.15	0.030	0.049	0.027	0.004	0.002	0.089	(0.007)
1	IARM 154C	0.339	0.423	0.0174	0.0043	0.37	0.120	0.215	12.41	0.016	0.036	0.054	0.014	0.0015	0.043	(0.005)
2	BS SS4951	0.333	0.58	0.016	0.0012	0.62	0.033	0.15	13.55	0.013	0.009	0.0127	0.006	0.002	0.032	
2	BS 152	0.320	0.36	0.022	0.275	0.44	0.050	0.14	13.41	0.015	0.061	0.020	0.006		0.051	<0.01
1	TRSID 1825	0.305	0.650	0.019	0.022	0.336	0.100	0.308	12.90	0.026	0.026	0.026			0.052	
1	13X 42027A **	0.30	0.37	0.015	(0.001)	0.54	0.035	0.17	15.3		1.00	0.40		0.02	0.05	0.02
1	ECRM 272-1D	0.2815	0.600	0.0156	0.0196	0.420	0.0192	0.2445	11.927	0.0145	0.0030	0.0508	0.0028	0.00096	0.0167	
1	SS 469	0.279	0.598	0.015	0.020	0.421	(0.02)	0.246	11.93	(0.01)					(0.02)	
1	VS LG38/1	0.255	0.73	(0.02)	(0.01)	0.81	(0.16)	0.551	11.75		0.344				0.190	
1	IMZ 168	0.24	1.36	0.019	0.012	1.12	0.093	0.17	13.91	(0.019)	0.026	(0.057)		(0.003)	0.053	
1	13X 12547M	0.238	1.191	0.0441	0.0746	0.344	0.531	1.492	17.49	0.302	1.009	0.099	0.347		0.1021	
1	IARM 205D	0.232	0.736	0.0209	0.0028	0.257	0.122	0.841	12.18	0.043	1.002	0.0484	0.013	0.0022	0.319	1.07
1	BS 422	0.232	0.640	0.0169	0.0013	0.404	0.080	0.676	11.25	0.0293	0.896	0.050	0.045	0.0011	0.274	0.95
1	SS 472	0.227	1.02	0.032	0.029	1.05	(0.02)	1.95	15.82	(0.02)	0.661				(0.02)	
1	13X 42200A	0.220	0.651	0.0182	0.0012	0.314	0.136	0.738	11.41	0.0114	1.042	0.0585	0.0203		0.246	1.177
1	NCS HS41749	0.21	0.39	0.023	0.012	0.56	1.15	1.52	12.27		0.158				0.074	
1	13X 42000A	0.208	0.679	0.0241	0.0253	0.496	0.202	0.295	12.56	0.0161	0.0398	0.0273			0.046	
1	13X 14923A	0.205	0.501	0.0197	0.0031	0.330	0.0563	0.452	11.26	0.0207	0.819	0.0321	0.005		0.295	
1	VS LG41/1	0.200	0.91	(0.02)	(0.008)	0.64	(0.12)	1.53	15.90		0.277				0.303	
1	IMZ 171	0.195	0.42	0.020	0.014	0.21	0.116	0.59	11.44	0.024	1.23	0.057		(0.001)	0.26	
1	NCS HS41748	0.194	0.62	0.016	0.011	0.54	0.008	0.077	12.70		0.010				0.048	
2	HRT FE2015-H	0.19	0.52	0.021	0.002	0.37	0.07	0.25	12.87		0.07	0.045			0.055	
1	13X 12548M	0.188	0.577	0.027	0.219	0.425	0.230	1.075	12.96	0.353	1.318	0.0500	0.586			0.031
2	HRT FE2010-H	0.188	0.60	0.024	0.004	0.33	0.08	1.94	15.95	0.023	0.13				0.044	0.024
1	SS 70	0.18	0.38	0.024	0.020	0.35	(0.06)	0.40	16.35							
1	IARM 20B	0.18	0.35	0.019	0.004	0.40	0.069	1.94	12.42	0.030	0.32	0.0434	0.010	0.004	0.17	3.52
1	IARM 20C	0.18	0.30	0.018	0.007	0.35	0.060	1.93	12.15	0.031	0.12	0.0222	0.010	(0.003)	0.086	2.59
1	IMZ 167	0.175	1.16	0.016	0.0025	0.755	0.106	0.16	13.07	(0.021)	0.024	0.053		(0.002)	0.054	
1	13X 41800A **	0.175	0.335	0.017	0.0005	0.32	0.105	2.05	12.3	0.036	0.07	0.029	0.004		0.021	2.80
1	SS 473	0.172	0.54	0.019	0.030	0.604	(0.02)	(0.05)	9.06	(0.01)	9.06				(0.02)	
2	BS 183A	0.172	0.35	0.016	0.0040	0.37	0.093	1.85	12.4	0.036	0.32	0.0256	0.006	0.002	0.090	2.60
1	IARM Fe418-18	0.168	0.429	0.016	(0.0005)	0.32	0.22	2.00	12.4	0.029	0.104	0.031	(0.019)		0.046	2.63

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
1	13X 15024X	0.166	0.610	0.0284	0.0294	0.750	0.332	2.99	14.65	0.1059	0.299	0.0156	0.099		0.150	0.039
1	13X 43100A	0.166	0.378	0.0199	0.0050	0.535	0.134	2.10	16.39	0.0239	0.0768	0.075	0.006		0.0577	0.004
2	13X 12549K	0.16	0.34	0.092	0.29	0.43	0.10	1.26	11.70	0.52	1.49		0.23			
1	IARM 12C	0.155	0.55	0.022	0.0032	0.34	0.33	2.23	15.78	0.048	0.125	0.056	0.020	(0.002)	0.040	0.015
1	SS 470	0.153	0.235	0.024	0.035	0.335	(0.02)	0.369	17.68	(0.02)					(0.02)	
2	BS 92B	0.150	0.42	0.021	0.003	0.42	0.13	2.12	15.92	0.04	0.17	0.073	(0.006)		0.07	0.02
1	SRM 1219	0.149	0.42	0.025	0.001	0.445	0.162	2.16	16.64		0.164	0.078			0.056	
1	BS 431	0.146	0.579	0.0232	0.0047	0.393	0.282	2.25	15.7	0.050	0.092	0.049	0.034	0.0007	0.062	0.012
1	IARM 335A	0.138	0.85	0.016	0.0005	0.39	0.086	4.27	15.30	0.063	2.72	0.085	0.015	(0.002)	0.094	0.008
1	BS 355	0.136	0.862	0.0171	0.0003	0.374	0.173	4.18	15.43	0.053	2.73	0.081	0.0103	0.0007	0.106	0.0069
1	13X 41001A	0.136	0.464	0.0142	0.0037	0.298	0.056	0.0939	12.06	0.0143	0.0102	0.0316			0.079	
1	IARM Fe410-18	0.132	0.50	0.017	0.0014	0.29	0.046	0.280	12.2	0.012	0.146	0.046	0.0021		0.065	(0.008)
1	NCS HS28747	0.132	0.453	0.027	0.0068	0.502	0.126	1.79	16.24	0.051	0.33	0.030		(0.002)	0.075	
1	13X 12540M	0.131	0.400	0.021	0.005	0.405	0.181	4.775	27.64	0.109	0.54	0.054		0.107	0.097	
1	BS 410C	0.131	0.381	0.0206	0.0051	0.366	0.084	0.352	12.78	0.0185	0.055	0.039	0.0056	0.0006	0.042	0.0131
1	BS 0021	0.128	0.420	0.021	0.008	0.354	0.040	0.100	12.00	0.015	0.016	0.029	(0.001)	(0.003)	0.029	0.005
1	IARM 10C	0.128	0.35	0.026	0.29	0.37	0.155	0.24	12.25	0.022	0.08	0.015	0.003	0.002	0.024	0.011
1	SRM 1223	0.127	1.08	0.018	0.329	0.327	0.081	0.232	12.64		0.053				0.068	
1	ECRM 296-1D	0.1166	0.676	0.0178	0.0026	0.242	0.1498	2.790	11.82	0.0218	1.700	0.0214			0.363	
1	BS 416	0.116	0.64	0.0237	0.35	0.232	0.154	0.371	13.41	0.0241	0.030	0.043	(0.006)	0.0012	0.100	0.0034
1	13X 15035U	0.115	0.674	0.0415	0.0456	0.636	0.204	2.38	14.00	0.199	0.399	0.0584	0.500		0.160	0.048
1	13X 64152A	0.114	0.666	0.0123	0.0020	0.224	0.0622	2.50	11.34	0.0185	1.567	0.0339			0.275	
1	13X 41600A	0.111	0.627	0.0253	0.302	0.442	0.160	0.331	13.23	0.0216	0.0499	0.0245	0.0053		0.0888	(0.003)
1	13X 12533Z	0.110	0.812	0.0149	0.0156	0.440	0.131	5.06	18.80	0.0299	1.05	0.073		0.147	0.181	
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	0.0011	0.29	(0.01)
2	CT 410	0.11	0.48	0.015	0.023	0.27	0.079	0.34	12.04	0.023	0.053	0.036	0.001	0.001	0.025	0.004
1	IMZ 156	0.101	0.84	0.031	0.008	1.11	0.071	0.64	16.96	(0.033)	0.035			(0.032)	0.073	
1	SS 471	0.095	0.417	0.018	0.023	0.326	(0.02)	0.96	23.85	(0.02)					(0.03)	
1	IMZ 158	0.091	1.34	0.015	0.007	2.23	0.097	0.24	25.51		0.025			0.12	0.078	
2	BS															

STAINLESS STEEL WITH NI < 5.0 %

CONTINUED FROM THE PREVIOUS PAGE

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

Table with columns: Number, Al, As, B, Ca*, Mg*, Pb*, O, Sb, Se, Sn, Ta, Zn, Zr, Units. Contains various material specifications including 14X HS10A, BS 156, BS 93F, IARM 13D, VS LG39/1, BS 422, and others.

Table with columns: Number, Al, As, B, Ca*, Mg*, Pb*, O, Sb, Se, Sn, Ta, Zn, Zr, Units. Contains various material specifications including 13X 15024X, BS 431, BS 431, BS 355, BS 410C, BS 0021, and others.

Table with columns: Number, Al, As, B, Ca*, Mg*, Pb*, O, Sb, Se, Sn, Ta, Zn, Zr, Units. This is a header row for a continuation of the table.

STAINLESS STEEL WITH C > 0.05 %

CONTINUED ON THE NEXT PAGE

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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
1	KUT S24	0.65	0.94	0.062	0.036	0.76	0.12	9.19	10.28	.	0.41	.	1.65	0.27	.	.
1	VS LG76	0.445	0.342	0.021	0.0076	0.455	0.098	13.39	13.77	.	0.263	0.031	.	0.020	0.041	2.38
1	VS LG74	0.373	0.962	0.024	0.0049	2.49	0.093	23.66	18.30	0.031	0.104	0.030	.	0.030	.	0.052
1	KUT S21	0.37	0.19	0.017	0.021	1.26	0.11	22.3	3.99	.	4.12	.	.	0.50	.	.
2	CZ CM-19A	0.361	0.783	0.0440	0.0182	1.588	0.986	15.27	13.12	0.222	1.023	(0.021)	0.091	0.254	1.235	0.311
1	VS LG79	0.313	1.28	0.017	0.0036	0.703	0.065	8.72	19.23	.	1.18	.	0.47	.	0.049	1.16
2	CZ SP-3C	0.30	0.43	0.026	0.011	0.84	0.185	5.31	16.42	0.041	0.26	.	(0.04)	(0.17)	0.19	0.12
1	DSZU C016	0.281	3.26	0.0192	0.0174	1.16	0.054	7.47	21.9	.	0.52	0.010	.	0.72	0.036	0.014
3	CZ SP-3B	0.27	0.29	0.023	0.008	0.72	0.62	5.65	15.1	0.02	0.24	.	.	0.13	0.10	0.12
1	KUT S19	0.26	0.32	0.012	0.021	2.32	0.19	12.8	7.00	.	0.11	.	0.81	0.048	.	.
1	SRM C1153a	0.225	0.544	0.030	0.019	1.00	0.226	8.76	16.70	0.127	0.24	.	.	.	0.176	.
1	VS LG34/5	0.222	0.362	0.010	0.019	0.80	0.269	9.54	17.32	.	0.266	.	.	0.138	0.195	0.33
1	13X 18001B	0.207	0.463	0.0090	0.0786	0.203	0.149	6.13	15.92	0.0231	0.816	0.0347	0.612	.	0.0996	.
1	KUT H6/1	0.20	0.49	0.021	0.024	0.67	0.10	0.15	18.9	.	.	.	.	0.10	.	(0.12)
2	CZ SP-3D	0.171	0.34	0.021	0.015	0.71	0.73	5.36	16.44	0.033	0.25	.	(0.04)	0.088	0.11	0.12
2	13X NSB1D	0.17	0.44	.	.	0.58	.	10.0	19.1	.	0.11	0.04	.	.	.	.
1	IARM 339A	0.16	1.71	0.004	0.009	0.64	0.021	12.9	17.0	0.007	2.79	0.0060	(0.005)	(0.002)	0.007	(0.0119)
1	13X 18002D	0.159	0.722	0.0245	0.0487	0.352	0.116	7.92	17.77	0.0514	0.209	0.072	1.531	.	0.0542	.
2	13X 12540L	0.15	0.44	.	.	1.05	.	5.17	27.88	.	0.54	.	.	.	.	.
2	CZ CM-18A	0.143	1.792	0.0182	0.0119	0.903	2.393	20.44	20.59	0.097	2.282	0.0848	.	.	0.113	0.097
1	SS 468/1	0.143	1.70	0.014	0.020	1.41	.	8.90	17.96	0.018	.	.	.	.	.	.
1	SRM C1152a	0.142	0.95	0.023	0.0064	0.64	0.097	10.86	17.76	0.22	0.44	.	.	.	0.033	.
1	VS LG32/5	0.138	0.54	0.0057	0.039	0.185	0.019	7.10	19.75	.	0.110	.	.	0.92	0.317	0.205
1	IARM 289A	0.126	1.67	0.006	0.0019	0.58	0.016	7.12	17.0	0.054	(0.005)	(0.0032)	0.008	0.028	0.01	0.01
1	IARM 241D	0.125	1.94	(0.003)	0.0023	1.00	0.242	8.98	18.12	0.022	(0.02)	(0.008)	0.028	0.018	0.031	(0.012)
1	DSZU C018	0.125	1.09	0.0268	0.0099	0.53	0.163	9.33	17.54	.	0.189	0.009	.	0.54	0.048	0.066
1	13X NSB3G	0.121	0.632	.	.	0.471	.	9.26	15.22	.	0.630	0.198	.	.	.	.
1	KUT H5	0.12	0.48	0.017	(0.003)	0.70	0.22	0.20	21.8	.	.	.	.	0.03	.	0.10
2	13X 17001B	0.114	1.73	0.080	0.016	0.34	0.037	6.05	14.89	0.15	0.12	0.040	0.76	.	.	.
1	13X 18003C	0.113	1.000	0.0545	0.0245	0.805	0.4033	10.08	19.56	0.100	0.401	0.090	1.042	.	0.0750	.
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	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	NCS H528743	0.110	0.841	0.024	0.0082	0.780	0.089	18.02	23.71	0.102	0.115	0.057	0.016	(0.003)	0.077	.
1	13X 12855N *	0.11	0.92	0.005	0.007	0.85	0.35	11.6	16.3	0.16	2.90	.	0.11	0.08	.	0.20
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	.	0.003	0.038	.
1	13X 14828A *	0.108	1.53	0.027	0.007	2.17	0.41	11.2	19.4	0.145	0.300	0.037	0.016	.	0.081	0.015
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)	0.053	(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	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	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	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
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	0.005	0.050	0.03
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	0.026	0.055	(0.006)
1	SS 462	0.092	0.74	0.010	0.018	0.46	.	12.53	12.37	.	.	.	.	.	.	.
1	13X 12537R	0.0889	1.116	0.0382	0.0206	1.151	0.248	10.71	20.43	0.1520	3.05	0.048	0.102	0.273	0.0908	.
1	DSZU C015	0.087	0.420	0.0118	0.059	0.214	0.070	12.15	15.36	.	0.89	0.020	.	0.177	0.021	0.023
1	SS 464/1	0.086	0.791	0.020	0.028	0.57	.	20.05	25.39	0.054	.	.	.	.	.	.
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	.	(0.002)	0.042	.
1	SS 467/1	0.082	0.788	0.018	0.019	0.52	.	9.21	18.09	.	.	.	0.99	.	.	.
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
1	13X 17001C	0.0769	1.543	0.055	0.0134	0.215	0.0161	6.31	14.83	0.0979	0.0967	.	0.546	.	.	.
1	KUT S26	0.076	0.94	0.027	0.026	0.67	0.14	3.31	18.9	.	2.59	.	0.07	0.11	.	.
1	NCS H541750	0.075	1.43	0.031	0.012	0.33	0.276	6.35	16.31	.	0.107	0.058	.	(0.001)	0.064	.
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
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	.	(0.0019)	0.0256	(0.0244)
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	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	0.076	0.124	0.05
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)	0.077	0.007
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	13X 12534X	0.0716	0.589	0.0192	0.0086	0.811	0.0586	8.50	17.71	0.0602	2.04	.	0.201	0.348	0.110	0.010
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)	(0.002)	0.042	0.022
1	IARM 18D	0.069	8.1	0.032	0.0025	3.68	0.421	8.39	16.7	0.086	0.325	0.170	(0.031)	0.012	0.064	(0.026)
1	13X 12853L	0.069	1.156	0.0053	0.0062	0.984	0.092	12.31	17.13	0.0415	2.718	0.0086	0.180	0.0455	0.089	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
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	.	.
2	CT 305	0.067	1.85	0.025	0.022	0.55	0.29	11.95	18.58	0.22	0.45	.	.	.	0.078	.
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	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	(0.002)	0.070	0.06
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	0.083	0.077	0.048
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	.
1	IARM 7C	0.064	1.32	0.014	0.0004	1.21	0.031	34.9	18.4	0.041	0.095	0.034	0.189	0.022	0.060	(0.02)
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	.	0.037	.
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	0.003	0.064	0.041
1	13X 31008A	0.062	1.232	0.030	0.0040	0.510	0.157	19.35	24.45	0.078	0.33					

STAINLESS STEEL WITH C > 0.05 %

CONTINUED FROM THE PREVIOUS PAGE

Number	Al	As	B	Bi	Ca	Ce	O	Pb	Sb	Sn	Ta	Zr	Units
KUT S24	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 or 40 mm
VS LG76	0.034	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
VS LG74	0.035	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
KUT S21	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 or 40 mm
CZ CM-19A	0.0788	.	(0.091)	.	(0.0036)	.	.	.	.	0.0283	.	.	~37 mm Ø x ~25 mm
VS LG79	0.059	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
CZ SP-3C	0.095	(0.03)	1.67	.	.	.	.	.	.	(0.02)	.	.	~39 mm Ø x 25 mm
DSZU C016	0.007	.	.	.	0.0004	.	.	.	.	.	.	.	40 mm Ø x 25 mm
CZ SP-3B	0.08	.	0.88	.	.	.	.	.	.	0.01	.	.	~39 mm Ø x 25 mm
KUT S19	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 or 40 mm
SRM C1153a	.	.	.	.	.	.	.	0.006	.	.	.	.	32 mm Ø x 19 mm
VS LG34/5	0.029	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~25 mm
13X 18001B	0.0157	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
KUT H6/1	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 or 40 mm
CZ SP-3D	0.037	(0.03)	2.45	.	.	.	.	.	.	(0.04)	.	.	~39 mm Ø x 25 mm
13X NSB1D	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
IARM 339A	0.004	(0.001)	0.0006	.	0.0014	.	0.016	.	.	(0.002)	(0.005)	(0.003)	31 mm Ø x 2 or 18 mm
13X 18002D	0.0617	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X 12540L	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
CZ CM-18A	0.0344	.	.	.	.	.	.	.	.	.	.	.	last of stock ~37 mm Ø x ~25 mm
SS 468/1	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
SRM C1152a	.	.	.	.	.	.	.	0.0047	.	.	.	.	32 mm Ø x 19 mm
VS LG32/5	0.156	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~25 mm
IARM 289A	0.01	.	0.0003	.	.	.	0.0104	.	.	(0.002)	<0.005	.	31 mm Ø x 2 mm
IARM 241D	0.022	(0.001)	0.0016	.	(0.0012)	.	(0.005)	(0.0003)	.	(0.0022)	(0.007)	(0.005)	31 mm Ø x 2 or 18 mm
DSZU C018	0.086	.	.	.	0.0003	.	.	.	.	.	.	.	40 mm Ø x 25 mm
13X NSB3G	.	.	.	.	.	.	.	0.006	.	.	.	.	42 mm Ø x 15 mm
KUT H5	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 or 40 mm
13X 17001B	0.01	.	0.008	.	.	.	.	.	.	0.030	.	.	~40 mm Ø x ~15 mm last
13X 18003C	0.0292	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
IRSID 1819	.	.	(0.0004)	.	.	.	.	.	.	.	.	.	47 mm x 47 mm x 30 mm
13X 17002E	(0.030)	.	0.0012	.	.	.	.	.	.	.	(0.012)	.	~40 mm Ø x ~15 mm
NCS HS28743	0.0056	0.0042	.	.	.	.	.	0.0004	.	0.0025	.	.	38 mm Ø x 35 mm
13X 12855N *	0.045	.	0.010	.	* Provisional Analysis				0.09	0.0025	0.12	.	~40 mm Ø x ~15 mm
IMZ 166A	0.036	(0.0026)	.	.	.	.	.	.	.	(0.0035)	.	.	40 mm Ø x 40 mm
13X 14828A *	0.008	* Provisional Analysis			0.001	.	.	.	.	0.012	.	.	~40 mm Ø x ~15 mm
VS LG81	0.409	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
VS LG77	.	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
IMZ 164	0.040	(0.005)	.	.	.	.	.	(0.002)	.	(0.003)	.	.	40 mm Ø x 40 mm
13X 17003A	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
VS LG73	.	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
KUT S20	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 or 40 mm
VS LG80	0.025	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
BS 253	0.016	0.005	.	.	.	.	0.044	.	.	0.006	25(pre-17025)		38 mm Ø x ~7 or 19+ mm
IARM 234C	0.035	(0.001)	0.0023	.	(0.0017)	.	(0.005)	(0.001)	.	0.0017	(0.003)	(0.006)	31 mm Ø x 2 or 18 mm
SS 462	.	0.007	.	.	.	.	.	0.0005	.	.	.	.	38 mm Ø x 19 mm
13X 12537T	(0.062)	.	0.0029	.	.	.	.	.	.	0.0401	0.0194	.	~40 mm Ø x ~15 mm
DSZU C015	(0.008)	.	.	.	0.0017	.	.	.	.	0.0004	.	.	40 mm Ø x 25 mm
SS 464/1	.	(0.003)	.	.	.	.	.	0.0004	.	.	.	.	38 mm Ø x 19 mm
IMZ 165	0.038	(0.003)	.	.	.	.	.	(0.001)	.	0.003	.	.	40 mm Ø x 40 mm
SS 467/1	.	0.004	.	.	.	.	.	0.004	.	.	0.0017	.	38 mm Ø x 19 mm
VS LG35/5	0.087	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~25 mm
13X 17001C	0.0312	.	0.0085	.	.	.	.	.	.	.	0.0124	.	~40 mm Ø x ~15 mm
KUT S26	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 or 40 mm
NCS HS41750	0.009	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 35 mm

Number	Al	As	B	Bi	Ca	Ce	O	Pb	Sb	Sn	Ta	Zr	Units
ECRM 270-1D	(0.0023)	(0.0034)	Ce: 0.0487	La: 0.0154	.	.	.	.	(0.0007)	(0.0035)	.	(0.002)	38 mm Ø x 25 mm
VS LG78	0.15	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
BS 192	1.17	(0.005)	(0.0003)	.	0.0007	.	0.0014	25(pre-17025)		0.008	(0.001)	.	38 mm Ø x ~7 or 19+ mm
BS 83G	(0.004)	.	(0.001)	.	.	.	0.0064	.	.	0.003	.	.	38 mm Ø x ~7 or 19+ mm
VS LG72	0.089	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
13X 12534X	0.0485	.	(0.0003)	.	.	.	.	(0.0001)	.	.	0.031	.	~40 mm Ø x ~15 mm
IARM 316A	0.006	0.007	.	.	0.0017	0.064	0.0052	.	.	0.006	(0.003)	.	31 mm Ø x 2 or 18 mm
IARM 18D	(0.006)	.	(0.0011)	.	.	.	.	.	.	.	(0.007)	.	31 mm Ø x 18 mm
13X 12853L	0.18	.	0.0018	.	.	.	.	.	.	.	0.034	.	~40 mm Ø x ~15 mm
VS LG63	0.45	.	.	.	.	.	.	.	.	.	.	.	~47 mm Ø x ~30 mm
KUT S25	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 or 40 mm
CT 305	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x ~16 mm
SRM 1171	.	.	.	.	.	.	.	.	.	.	.	.	31 mm Ø x 19 mm
BS 9841	<(0.006)	(0.003)	0.0026	25(pre-17025)		.	(0.011)	(0.001)	(0.006)	0.006	.	(0.002)	44 mm Ø x ~7 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)	.	.	0.008	25(pre-17025)		38 mm Ø x ~7 or 19+ mm
IMZ 152	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
VS LG71	0.072	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
IARM 7C	0.017	.	0.0027	.	.	.	0.0021	(0.0001)	.	0.0020	(0.002)	(0.001)	31 mm Ø x 2 or 18 mm Mg:15ppm
CT 304	.	.	.	.	.	.	.	<0.001	.	0.017	.	.	30-35 mm Ø x ~16 mm Ag: 7ppm
BS 82E	0.006	.	0.0024	.	0.0014	.	.	.	.	0.006	.	.	38 mm Ø x ~7 or 19+ mm
13X 31008A	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
KUT H7/1	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 or 40 mm
CT 316	.	.	.	.	.	.	.	.	0.001	0.006	.	.	30-35 mm Ø x ~19 mm Ag: 5ppm
VS LG36/5	0.080	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~25 mm
CT X52353	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x ~16 mm last
13X NSB2D	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
BS 321D *	0.1	<0.05	0.001	.	<0.005	.	<0.005	<0.005	* Provisional Analysis <0.005				44 mm Ø x ~7 or 19+ mm
BS 9842	0.014	(0.002)	0.0025	.	0.0010	.	(0.0044)	.	.	0.005	25(pre-17025)		38 mm Ø x ~7 or 19+ mm
BS 82D	(0.002)	.	0.0040	.	0.0007	.	0.007	.	.	0.004	last		38 mm Ø x ~7 mm
13X 30908A	0.0035	.	0.0027	.	(0.0005)	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
SRM 1172	.	.	.	.	.	.	.	.	.	.	<0.001	.	32 mm Ø x 19 mm
VS LG82	0.076	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
IARM 3E	0.0045	(0.005)	(0.0005)	.	0.0015	.	0.0048	(0.0003)	(0.0013)	0.007	(0.005)	0.0018	31 mm Ø x 2 or 18 mm
BS 87F	0.004	0.005	(0.0006)	.	0.0007	.	0.005	.	.	0.004	.	.	41 mm Ø x ~7 or 19+ mm
13X 19001B	.	.	.	.	.	.	.	.	.	.	(0.019)	.	40 mm Ø x 15 mm
BS 86F	(0.007)	(0.003)	0.0026	.	(0.001)	.	.	(0.001)	.	0.004	.	.	44 mm Ø x ~7 or 19+ mm
DSZU C017	0.28	.	.	.	0.0031	.	.	.	.	.	.	.	40 mm Ø x 25 mm
IARM Fe304H-18	(0.005)	0.0076	.	.	.	.	(0.008)	.	.	.	(0.014)	.	31 mm Ø x 2 or 18 mm
BS 347B	0.002	(0.003)	0.0036	.	(0.0005)	.	0.005	.	.	0.006	<(0.004)	.	38 mm Ø x ~7 or 19+ mm
BS 347A	(0.002)	(0.003)	(0.0004)	.	(0.0002)	.	0.0047	.	.	0.007	<(0.004)	.	38 mm Ø x 19+ mm
IARM 2H	0.0034	0.007	0.0005	.	(0.0021)	.	0.007	.	(0.0018)	0.011	0.006	(0.003)	31 mm Ø x 2 mm
BS 188A	0.19	.	0.0065	.	.	.	0.0012	<0.001	.	0.002	.	.	38 mm Ø x ~7 mm last of stock

Number	Al	As	B	Bi	Ca	Ce	O	Pb	Sb	Sn	Ta	Zr	Units
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STAINLESS STEEL WITH C < 0.05 % CONTINUED ON THE NEXT PAGE

= Class, where 1 = CRM, 2 = RM, and 3 = RM with no uncertainties analysis listed in mass %

Table with columns: #, Number, C, Mn, P, S, Si, Cu, Ni, Cr, Co, Mo, N, Nb, Ti, V, W. Contains multiple rows of stainless steel material specifications.

STAINLESS STEEL WITH C < 0.05 %

CONTINUED FROM THE PREVIOUS PAGE

analysis listed in mass %

Number	Al	As	B	Ca	O	Pb	Sb	Sn	Ta	Units
ECRM 269-1D	.	0.0061	.	.	.	.	.	0.0099	.	35 mm Ø x 25 mm
IARM 8H *	(0.005)	.	(0.0002)	.	* Provisional Analysis	.	.	(0.008)	(0.01)	31 mm Ø x 2 or 18 mm
IARM 61	0.084	(0.005)	0.0034	(0.0004)	0.0012	.	.	(0.0060)	.	31 mm Ø x 2 or 18 mm
IARM 51	0.004	0.006	0.0006	(0.0016)	0.0057	(0.0001)	(0.0019)	0.0077	(0.005)	31 mm Ø x 2 or 18 mm
ECRM 289-1D	0.199	.	0.0044	.	.	.	.	0.111	.	38 mm Ø x 30 mm
IMZ 150A	0.022	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
IARM 4F	0.015	(0.003)	(0.0012)	(0.002)	(0.004)	.	(0.001)	(0.005)	(0.007)	31 mm Ø x 2 or 18 mm
13X 32100A	0.0247	.	0.0025	.	.	.	.	0.0115	.	~38 mm Ø x ~15 mm
IARM Fe303-18	.	0.007	(0.0012)	.	(0.006)	.	.	(0.015)	.	31 mm Ø x 2 or 18 mm
BS 188B	0.168	0.0045	0.0047	(0.00003)	0.0006	(0.0001)	(0.0006)	0.0051	.	38 mm Ø x ~7 or 19+ mm Fe: 55.8 17025
IARM 4G	0.008	(0.005)	0.0032	(0.001)	(0.003)	(0.0005)	(0.001)	0.008	(0.008)	31 mm Ø x 2 or 18 mm
IARM 6J	0.0195	.	0.0024	.	(0.001)	.	.	(0.009)	(0.01)	31 mm Ø x 2 or 18 mm
BS 303	0.0019	.	0.0013	(0.0015)	0.0058	.	(0.002)	0.0091	.	44 mm Ø x ~7 or 19+ mm 17025 Fe:[70.7]
IARM 4E	0.004	(0.005)	0.0011	.	0.0021	.	.	0.0060	0.005	31 mm Ø x 2 or 18 mm
CZ SL-3A	0.007	.	0.002	.	.	.	.	0.006	.	~39 mm Ø x 25 mm
KUT S15	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 or 40 mm
IARM 8i	(0.0030)	.	(0.0005)	.	(0.004)	.	.	(0.012)	.	31 mm Ø x 2 or 18 mm
13X 14216P	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
IARM 8G	0.0030	(0.007)	(0.0005)	(0.0005)	(0.003)	.	.	0.0107	(0.004)	31 mm Ø x 2 or 18 mm
VS LG70	0.029	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
NILAB 500HA D	.	.	.	.	.	.	.	.	.	38 mm Ø x 20 mm
13X 12538J	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
NCS HS28741	.	0.0035	.	.	.	.	.	.	.	38 mm Ø x 35 mm
BS 321C	0.044	(0.004)	(0.0005)	(0.0001)	(0.0011)	0.0001	.	0.0051	.	38 mm Ø x ~7 or ~11 mm last
IRSID 1821	.	.	.	.	.	.	.	.	.	47 mm x 47 mm x 30 mm
IMZ 153A	0.036	.	.	.	.	.	.	.	.	38 mm Ø x 20 mm
13X 14207L *	.	* Provisional Analysis	.	.	.	.	.	.	0.08	~40 mm Ø x ~15 mm
ECRM 292-1D	(0.002)	(0.008)	.	(0.0006)	.	.	.	.	(0.001)	38 mm Ø x 25 or 30 mm
13X 66286A	0.193	.	0.0044	.	.	.	.	.	.	~40 mm Ø x ~15 mm
BS 184A	1.00	.	(0.0004)	(0.0003)	(0.0003)	.	.	(0.002)	(0.002)	38 mm Ø x ~7 or 19+ mm
IARM 21C	1.07	.	0.0004	.	0.0004	.	.	0.005	(0.002)	31 mm Ø x 2 or 18 mm
SS 462/1	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
SRM C1151a	.	.	.	.	.	0.0039	.	.	.	32 mm Ø x 19 mm
13X 31400A *	0.021	.	.	0.0025	.	.	.	.	.	~40 mm Ø x ~15 mm
BS 9812	(0.002)	(0.005)	(0.0003)	0.0012	(0.007)	.	.	0.004	.	50 mm Ø x ~7 or 19+ mm 25(pre-17025)
HRT FE2014-H	.	.	.	.	.	.	.	.	.	35mm Ø x 20 mm
BS 317L	(0.005)	(0.003)	0.0013	(0.001)	0.007	.	.	0.005	.	37 mm Ø x ~7 or 19+ mm
VS LG75	0.113	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
BS 9811	(0.003)	(0.003)	(0.0003)	0.0014	(0.0060)	.	.	0.004	.	38 mm Ø x ~7 or 19+ mm 25(pre-17025)
SRM 1155a	<0.01	(0.007)	(0.002)	.	(0.003)	<0.005	.	(0.0069)	.	32 mm Ø x 19 mm
Number	Al	As	B	Ca	O	Pb	Sb	Sn	Ta	Units
HRT FE2013-H	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm last of stock
13X 32900A	0.007	.	0.0028	0.0033	.	.	.	.	.	~40 mm Ø x ~15 mm
IARM 162D	(0.0026)	0.0072	0.0027	(0.003)	0.005	.	(0.0019)	0.0102	(0.005)	31 mm Ø x 2 or 18 mm
IARM Fe304L-18	(0.003)	0.007	(0.0012)	.	(0.006)	.	.	(0.013)	.	31 mm Ø x 2 or 18 mm
IARM 153C	(0.003)	0.0061	0.0009	(0.0026)	0.006	(0.001)	(0.002)	0.010	(0.006)	31 mm Ø x 2 or 18 mm
ECRM 297-1D	0.0195	0.0040	1.146	(0.0002)	.	.	.	.	.	40 mm Ø x 30 mm
NCS HS28746	0.086	0.0032	.	.	.	0.0002	.	0.0065	.	38 mm Ø x 35 mm
BS 9942	0.004	(0.004)	0.0014	0.0014	(0.0023)	.	.	0.006	.	44 mm Ø x ~7 or 19+ mm 25(pre-17025)
BS 9941	0.004	(0.010)	0.0025	(0.0003)	(0.0058)	.	.	0.007	.	38 mm Ø x ~7 or 19+ mm 25(pre-17025)
IARM Fe316L-18	(0.006)	.	.	.	(0.005)	.	.	(0.013)	.	31 mm Ø x 18 mm
IRSID 1820	.	.	(0.0013)	.	.	.	.	.	.	47 mm x 47 mm x 30 mm
NCS HS28742	.	0.0025	.	.	.	0.0001	.	(0.0001)	.	38 mm Ø x 35 mm
IARM 301B	0.005	(0.004)	0.0024	(0.0009)	0.0069	(0.0003)	(0.0006)	0.0051	(0.003)	31 mm Ø x 2 or 18 mm
13X NSA8B	.	.	0.0017	0.0011	.	.	.	.	.	~38 mm Ø x ~15 mm
13X 30403A	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X NSA9A	.	.	.	.	.	.	.	.	.	40 mm Ø x ~15 mm
SS 463/1	.	.	0.0022	.	.	.	.	.	.	38 mm Ø x 19 mm
BS 2205	0.0080	0.0059	0.0016	0.0014	0.0034	(0.0001)	0.0010	0.0050	17025	38 mm Ø x ~7 or 19+ mm Fe:[67.0] Mg:(0.0004) Zr:(0.006)
13X NSA12A	0.0169	.	0.0020	.	.	.	.	.	.	~40 mm Ø x ~15 mm
BS 304A	0.0028	(0.007)	(0.0005)	.	0.0061	(0.0001)	(0.002)	0.0096	last	38 mm Ø x ~7 or 19+ mm 17025 Fe:[70.1]
IARM 212D	(0.005)	(0.01)	0.001	(0.001)	0.0034	(0.001)	.	(0.003)	(0.003)	31 mm Ø x 2 mm
13X NSA13A *	0.007	.	0.0028	.	.	.	.	.	.	~40 mm Ø x ~15 mm
BS 316D	(0.002)	0.0048	0.0038	(0.0008)	0.0039	(0.0003)	(0.002)	0.0080	last	38 mm Ø x ~7 mm 17025 Fe: 68.1
BS 316E	0.0027	0.0045	0.0036	(0.0006)	0.0039	(0.0002)	(0.002)	0.0082	.	38 mm Ø x ~7 or 19+ mm 17025 Fe: 68.1
IARM 162C	0.004	(0.006)	(0.001)	(0.001)	0.005	(0.001)	.	0.011	last	31 mm Ø x 18 mm
13X FV520BA	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
HRT FE2000-H	.	.	0.0013	.	.	.	.	.	.	40 mm Ø x 20 mm
BS 304	0.0022	(0.005)	(0.0005)	(0.001)	0.0083	(0.0003)	(0.002)	0.0116	.	38 mm Ø x ~7 or 19+ mm 17025 Fe:[70.5]
VS LG33/5	0.024	.	.	.	.	.	.	.	.	~38 mm Ø x ~25 mm
IARM Fe2205-18	(0.007)	.	.	.	(0.004)	.	.	(0.006)	.	31 mm Ø x 2 or 18 mm
NCS HS28745	.	0.0055	.	.	.	0.0001	.	0.0073	.	38 mm Ø x 35 mm
BS 304B	0.0036	0.0051	(0.0004)	0.0009	0.0038	(0.0008)	.	0.0057	.	38 mm Ø x ~7 or 19+ mm 17025 Fe: 69.6
IARM 239C *	0.007	(0.004)	0.0014	.	.	.	.	.	.	31 mm Ø x 2 or 18 mm
IARM FeZ100-18	(0.017)	.	0.002	.	(0.003)	.	.	(0.006)	.	31 mm Ø x 2 or 18 mm
BS 179C	0.0078	0.0034	0.0015	(0.0003)	0.0038	(0.00002)	0.0005	0.0018	(0.0006)	38 mm Ø x ~7 or 19+ mm 17025 Fe:[61.6]
BS 179B	0.0070	0.0036	0.0015	(0.0004)	0.0037	(0.00002)	0.0005	0.0019	(0.0006)	38 mm Ø x 19+ mm 17025 Fe:[61.5]
ECRM 287-1D	.	.	0.924	.	.	.	.	.	.	38 mm Ø x 25 or 30 mm
13X 34700A	0.023	.	0.0008	.	.	.	.	.	.	~38 mm Ø x ~15 mm
13X NSA11A	(0.021)	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
CZ SL-2A	0.005	0.008	0.002	.	.	.	.	0.01	.	~39 mm Ø x 25 mm
IARM 319A	(0.010)	(0.004)	0.0020	.	0.0025	.	.	0.0055	(0.002)	31 mm Ø x 2 mm
ECRM 298-1D	0.0285	.	0.0021	.	.	0.00008	.	.	.	38 mm Ø x 25 mm Fe: 63.38
SS 466/2	0.0018	0.0020	0.0039	.	.	.	.	.	.	38 mm Ø x 19 mm
BS SS3951	0.002	.	(0.0006)	0.0005	0.0075	.	.	0.007	.	41 mm Ø x ~7 or 19+ mm
IARM 163E *	0.0039	(0.008)	0.0019	(0.002)	0.007	.	(0.002)	0.012	.	31 mm Ø x 2 mm * Provisional Analysis, last
HRT FE2016-H	.	.	.	.	.	.	.	.	.	30 mm Ø x 20 mm
SS 461/1	0.069	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
BS SS1961	0.067	0.004	0.0022	.	(0.002)	.	.	0.004	.	38 mm Ø x 12 mm last
JK 27B	.	.	0.00072	0.0022	.	.	.	0.0068	.	~37 mm Ø x 25 mm
BS SS1962	0.062	0.002	0.0018	.	(0.001)	.	.	0.004	.	38 mm Ø x ~7 or 19+ mm
IARM 354A	(0.05)	(0.002)	0.0023	(0.0003)	(0.0012)	(0.004)	(0.0002)	(0.002)	.	31 mm Ø x 2 or 18 mm
CT ISO123A	0.027	.	0.0021	.	.	.	.	.	.	30-35 mm Ø x ~16 mm Fe: 74.72
13X 46500A	0.069	.	0.0016	.	.	.	.	0.0030	.	~32 mm Ø x ~20 mm
ECRM 284-3D	.	0.00131	0.00020	.	.	.	.	0.00074	.	39 mm Ø x 28 mm
Number	Al	As	B	Ca	O	Pb	Sb	Sn	Ta	Units

RM TRACE ELEMENTS IN STAINLESS STEEL

Number	certified analysis					informational analysis													40 mm Ø x 20 mm		
	As	Pb	Sb	Sn	Zn	C	Mn	P	Si	Cu	Ni	Cr	Mo	N	B	Ca	Ti	V			
DSZU C25	0.093	0.038	0.094	0.095	0.034	0.3	0.1	0.02	0.3	0.7	1.6	13	0.1	0.10	0.03	0.004		0.03			
DSZU C35	0.064	0.086	0.058	0.064	0.058	0.1	1.1	0.03	0.3	0.5	11	16	1.4	0.02	0.002	0.001	0.05	0.03			
DSZU C22	0.051	0.023	0.050	0.051	0.019	0.4	0.1	0.02	0.2	0.5	1.5	13	0.1	0.04	0.03	0.002		0.03			
DSZU C34	0.042	0.015	0.033	0.039	0.041	0.1	1.0	0.03	0.3	0.4	12	16	1.1	0.11	0.005	0.001	0.05	0.03			
DSZU C33	0.021	0.0046	0.015	0.020	0.019	0.1	1.1	0.03	1.0	0.3	16	17	1.2	0.14	0.02	0.0004	0.05	0.03			
DSZU C24	0.014	0.0017	0.010	0.011	0.0035	0.4	0.1	0.02	0.2	0.3	1.5	13	0.1	0.12	0.007	0.003		0.03			
DSZU C31	0.012	0.0017	0.007	0.010	0.028	0.1	1.4	0.03	0.8	0.2	10	17	0.8	0.04	0.02	0.008	0.05	0.03			
DSZU C23	0.008	0.0008	0.006	0.010	0.0028	0.4	0.1	0.02	0.3	0.2	1.4	13	0.1	0.10	0.004	0.002		0.03			
DSZU C32	0.008	0.0005	0.0015	0.006	0.015	0.1	1.2	0.03	0.6	0.2	11	17	1.0	0.04	0.02	0.005	0.05	0.03			
DSZU C21	0.005	0.0002	0.0011	0.003	0.0026	0.4	0.1	0.02	0.3	0.2	1.2	13	0.1	0.03	0.002	0.001		0.03			

STAINLESS STEEL XRF SETS

AVAILABLE IN SETS OR INDIVIDUALLY

~7 mm discs

Grade	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	V	W
SET BS SS-17															
15-5PH	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	0.048	(0.014)
17-4PH	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	
17-7PH	BS 192	0.075	0.84	0.025	0.001	0.38	0.41	7.10	16.42	0.104	0.42	0.029	0.17	0.13	0.04
253 MA	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	0.050	0.03
255	BS 179C	0.0164	0.878	0.0236	0.0003	0.373	1.53	6.10	25.9	0.0386	3.34	0.236	0.009	0.080	0.056
2205 (318)	BS 2205	0.0199	1.029	0.0227	0.0005	0.564	0.196	5.27	22.92	0.041	3.26	0.169	0.0052	0.0560	0.0309
303	BS 303	0.044	1.80	0.028	0.0026	0.415	0.627	8.17	17.23	0.071	0.410	0.023	0.008	0.056	0.023
304 L	BS 81P	0.026	1.35	0.023	0.012	0.36	0.19	10.06	18.15	0.21	0.41	0.069		0.078	0.037
309	BS 82D	0.058	1.85	0.020	0.009	0.63	0.16	14.12	22.40	0.042	0.144	0.070	0.053	0.087	0.028
310	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	0.077	0.007
316 L	BS 316D	0.0185	1.400	0.0294	0.0189	0.278	0.409	10.38	16.76	0.294	2.05	0.042	0.0277	0.074	0.072
317 L	BS 317L	0.027	1.17	0.029	0.0014	0.67	0.23	13.53	18.16	0.14	3.07	0.056	0.031	0.09	0.018
321	BS 85D	0.048	1.69	0.024	0.024	0.54	0.45	9.98	17.09	0.97	0.59	(0.02)	0.062	0.132	(0.07)
330	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	0.061	(0.03)
347	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	0.04	(0.005)
355	BS 355	0.136	0.862	0.0171	0.0003	0.374	0.173	4.18	15.43	0.053	2.73	0.081	0.0103	0.106	0.0069
PH13-8 Mo	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)	0.014	0.032
SET BS 400-SS-16															
182PM	BS 150	0.048	1.71	0.020	0.33	0.43	0.042	0.19	18.61	0.024	1.97	0.029	0.003	0.054	0.01
410	BS 410C	0.131	0.381	0.0206	0.0051	0.366	0.084	0.352	12.78	0.0185	0.055	0.039	0.0056	0.0006	0.0131
416	BS 90F	0.085	0.53	0.023	0.328	0.58	0.12	0.30	13.01	0.021	0.14	0.037	0.011	0.076	0.032
416 Se	BS 151	0.090	0.41	0.021	0.018	0.65	0.11	0.24	13.19	0.018	0.088	0.022	0.005	0.046	0.010
420	BS 98	0.309	0.48	0.019	0.0014	0.72	0.098	0.21	13.35	0.020	0.034	0.0181	0.003	0.075	0.009
420F	BS 152	0.32	0.36	0.022	0.275	0.44	0.050	0.14	13.41	0.015	0.061	0.020	0.006	0.051	<0.01
422	BS 97	0.216	0.71	0.021	0.0004	0.39	0.066	0.76	11.82	0.041	1.05	0.030	0.007	0.21	0.95
430	BS 91E	0.066	0.42	0.017	0.002	0.52	0.05	0.17	16.58	0.02	0.035	0.032	(0.004)	0.09	0.01
430F	BS 153	0.026	0.41	0.018	0.280	0.53	0.052	0.140	17.38	0.017	0.30	0.021	0.002	0.045	(0.002)
431	BS 92B	0.150	0.42	0.021	0.003	0.42	0.13	2.12	15.92	0.04	0.17	0.073	(0.006)	0.07	0.02
440C	BS 93E	1.02	0.52	0.022	0.0010	0.90	0.12	0.35	17.33	0.048	0.50	0.0359	0.005	0.24	0.11
440F	BS 155	1.00	0.35	0.014	0.145	0.40	0.035	0.13	16.64	0.019	0.46	0.032	0.002	0.10	
440F Se	BS 156	1.06	1.15	0.022	0.007	0.47	0.09	0.35	16.87	0.047	0.50	0.041	0.005	0.13	0.11
446	BS 94C	0.057	0.45	0.024	0.002	0.62	0.056	0.43	25.90	0.042	0.20	0.065	0.032	0.12	(0.03)
450	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	0.052	0.02
455	BS 96A	0.009	0.04	0.007	0.004	0.06	2.07	8.38	11.62	0.03	0.021		0.26	0.07	

Number	Al	B	Ca	Se	Sn	Ti										
SET BS SS-17																
BS 185A	0.002	0.0017	(0.0002)	.	0.007	(0.001)										
BS 17-4PHA	.	0.0016	.	.	.	.	Ta: (0.002)									
BS 192	1.15	(0.0004)	0.0007	.	0.009	0.078										
BS 253	0.016	.	0.0007	.	0.006	0.005	Ce: 0.044 As: 0.005									
BS 179C	0.0078	0.0015	(0.0003)	.	0.0018	(0.0005)	As: 0.0034 O: 0.0038 Sb: 0.0005 17025									
BS 2205	0.0080	0.0016	0.0014	.	0.0050	0.0019	As: 0.0059 Fe:[67.0] O: 0.0034 Sb:0.0010 17025									
BS 303	0.0019	0.0013	(0.0015)	.	0.0091	0.017	O: 0.0058 17025									
BS 81P	(0.003)	0.0026	(0.0004)	.	0.007	0.003	O: (0.0064)									
BS 82D	(0.002)	0.0040	0.0007	.	0.004	0.005										
BS 83G	(0.004)	(0.001)	0:0.0064	.	0.003	(0.003)										
BS 316D	(0.002)	0.0038	(0.0008)	0:0.0039	0.0080	(0.002)	As: 0.0048 Fe: 68.1 17025									
BS 317L	(0.005)	0.0013	(0.001)	.	0.005	.										
BS 85D	0.13	(0.001)	0.0004	.	0.0062	0.48	17025									
BS 86F	(0.007)	0.0026	(0.001)	.	0.004	(0.006)										
BS 347B	0.002	0.0036	(0.0005)	.	0.006	(0.002)										
BS 355	0.0192	0.0039	(0.0002)	.	0.0038	0.0007	O: 0.0020									
BS 184A	1.00	(0.0004)	(0.0003)	.	(0.002)	0.051										
SET BS 400-SS-16																
BS 150	0.002	.	.	.	(0.003)	(0.002)										
BS 410C	0.0079	(0.0001)	0.0022	.	0.0023	0.0006	17025									
BS 90F	(0.006)	.	.	.	0.005	(0.002)										
BS 151	(0.002)	.	.	0.328	0.005	(-0.003)										
BS 98	0.003	.	(0.0005)	.	0.006	0.002										
BS 152	(0.002)	.	.	.	0.003	(0.002)										
BS 97	0.018	.	.	.	(0.003)	(0.002)										
BS 91E	(0.002)	.	0.0008	.	0.004	(0.002)										
BS 153	(0.004)	.	.	.	0.002	(0.004)										
BS 92B	(0.002)	.	(0.0009)	.	0.006	(0.002)										
BS 93E	0.009	.	.	.	0.003	0.007										
BS 155	(0.001)	.	.	.	(0.003)	(0.002)										
BS 156	<(0.002)	.	.	0.142	(0.004)	0.001										
BS 94C	0.004	.	0.0008	.	0.006	.										
BS 95A	0.002	0.0010	0.0008	.	0.008	(0.003)										
BS 96A	0.08	(0.0017)	.	.	.	1.18										

RM HIGH ALLOY STEEL XRF SET

Part Number: BS HAS-12 AVAILABLE INDIVIDUALLY ~7 mm discs

Number Grade	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	B	Co	N	Nb	Sn	Ti	V	W	O
BS 189A AL6XN CRM	0.0147	0.639	0.019	(0.001)	0.30	0.184	23.8	20.4	6.04	0.0129	(0.0002)	0.100	0.198	(0.13)	0.0035	0.0065	0.054	0.037	0.0024
BS 179A Alloy 255	0.017	1.04	0.021	0.001	0.44	1.94	5.84	25.45	3.24	(0.009)	(0.001)	0.58	0.184	0.030	0.005	0.006	0.070	(0.2)	.
BS 183 Greek Ascoloy	0.16	0.43	0.020	0.013	0.33	0.068	2.00	12.81	0.35	.	.	0.029	.	(0.003)	(0.0016)	0.003	0.12	2.77	.
BS 186A Invar 36	0.040	0.72	0.008	0.0053	0.19	0.016	35.86	0.16	0.0032	(0.001)	.	0.028	0.0026	<0.002	(0.002)	<0.003	0.0012	(0.01)	.
BS 187A Carp. 20Cb3	0.022	0.52	0.017	0.0025	0.26	3.10	33.06	19.75	2.06	(0.009)	0.0022	0.32	0.0157	0.57	0.003	(0.002)	0.10	(0.02)	.
BS 188A A-286	0.050	0.139	0.015	0.0049	0.15	0.099	24.61	14.04	1.10	0.19	0.0065	0.18	0.0029	0.050	0.002	2.21	0.24	0.055	.
BS 190 Nitronic@ 40	0.022	9.72	0.015	0.001	0.46	0.072	6.74	19.57	0.15	(0.004)	0.0005	0.044	0.255	(0.004)	0.003	0.002	0.11	0.015	0.0045
BS 180A Nitronic@ 50	0.018	5.05	0.012	0.001	0.32	0.067	13.19	21.09	2.04	0.012	(0.0024)	0.039	0.334	0.20	(0.002)	(0.002)	0.20	0.02	0.003
BS 181A Nitronic@ 60	0.071	8.16	0.019	0.001	4.03	0.18	8.15	16.52	0.21	0.022	0.0009	0.072	0.148	0.017	0.005	0.007	0.094	0.04	0.0010
BS 193 18Cr-12Mn	0.104	12.11	0.018	0.002	0.66	0.088	1.82	18.48	0.21	(0.003)	0.0007	0.028	0.37	0.014	0.004	0.003	0.107	(0.007)	.
BS 182 17Cr-15Mn	0.037	15.09	0.022	(0.003)	0.46	0.56	1.11	16.67	0.99	.	.	0.032	(0.40)	(0.005)	(0.003)	(0.003)	0.059	(0.01)	.
BS 191 16Cr-6Mn-4Si	0.098	5.71	0.024	0.023	3.66	0.33	5.34	16.33	0.36	(0.002)	(0.0006)	0.11	0.117	0.024	(0.006)	0.012	0.083	0.033	.

Number Grade	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	B	Co	N	Nb	Sn	Ti	V	W	O
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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	.	.	.	.

CRM CAST IRON SET AVAILABLE IN SET ONLY 37 mm x 37 mm x ~20mm

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Ce	La	Mg	Mo	Sb	Sn	Ti	V
CKD 241	1.71	0.136	0.006	0.14	3.20	0.021	0.014	0.684	.	.	.	0.60	0.13	0.004	0.001	0.092
CKD 242	2.21	0.045	0.040	0.033	2.88	0.045	0.024	0.026	.	.	.	1.20	0.007	0.008	0.314	0.43
CKD 243	2.23	0.385	0.162	0.085	2.44	0.175	0.080	0.378	.	.	.	0.263	0.082	0.111	0.013	0.258
CKD 244	2.60	0.665	0.024	0.019	2.11	0.295	0.36	0.274	0.014	0.005	0.033	0.053	(0.003)	0.177	0.033	0.004
CKD 245	2.78	1.36	0.40	0.049	1.60	0.063	0.165	0.168	.	.	0.004	0.106	0.048	0.074	0.074	0.058
CKD 246	2.82	0.302	0.60	0.022	0.62	1.38	0.043	1.20	(0.01)	0.003	0.010	0.005	0.003	0.005	(0.001)	0.002
CKD 247	3.12	1.01	0.095	0.005	1.16	0.815	0.42	0.054	0.048	0.022	0.037	0.015	0.002	0.038	0.058	0.008
CKD 248	3.41	0.245	0.050	0.006	1.81	0.117	0.70	0.022	0.023	0.014	0.064	0.003	0.012	0.015	0.170	0.171
CKD 249	3.75	0.127	0.25	0.008	0.34	0.485	1.42	0.093	0.077	0.025	0.056	0.013	0.004	0.004	0.096	0.024

Number	Al	As	B	Bi	Ca	Co	Fe	Nb	Nd	Pb	Pr	Se	Te	W	Zn	Zr
CKD 241	0.003	0.003	(0.001)	.	.	0.002	(93.23)	0.002	.	0.003	.	.	.	0.001	.	0.001
CKD 242	0.075	0.007	0.007	0.013	.	0.002	(92.55)	0.007	.	0.020	.	.	0.024	0.011	(0.001)	.
CKD 243	0.012	0.08	0.009	.	.	0.022	(93.03)	0.024	.	(0.04)	.	0.050	.	0.026	(0.016)	.
CKD 244	0.070	0.041	0.084	.	(0.003)	0.047	(92.95)	0.004	(0.004)	0.002	(0.002)	.	.	0.055	0.018	0.034
CKD 245	0.020	0.006	0.008	0.007	.	0.004	(92.89)	.	.	0.015	.	0.034	0.029	0.021	.	0.002
CKD 246	0.006	0.005	.	.	(0.002)	0.008	(92.92)	0.001	(0.003)	(0.0003)	(0.001)	.	.	0.007	.	.
CKD 247	0.013	0.009	(0.01)	.	(0.005)	0.092	(92.82)	0.057	(0.012)	0.002	(0.006)	.	(0.017)	(0.005)	0.013	0.007
CKD 248	0.045	0.019	0.036	0.004	(0.003)	0.016	(92.96)	0.005	(0.005)	0.012	(0.002)	0.003	0.004	(0.003)	0.015	0.015
CKD 249	0.059	0.018	0.018	0.006	(0.002)	0.011	(92.94)	0.035	(0.02)	0.023	(0.009)	0.004	(0.004)	(0.01)	0.004	0.040

These CKD sets may contain 1 or more replacement pieces from later batches.

RM GRAY IRON as cast (not chill cast) CONTAINS FREE GRAPHITE OBS regularly requires extension of preburn time to analyze correctly

Table with columns: Number, C, Mn, P, S, Si, Cu, Ni, Cr, Al, As, Co, Mo, Sb, Sn, Ti, V, mm Ø x mm H. Rows include BS 20G, BS 20W, BS 20R, BS 20E, BS 20P.

DUCTILE / NODULAR IRON

= Class, where 1 = CRM and 2 = RM * Provisional Analysis

Main table for Ductile/Nodular Iron with columns: #, Number, C, Mn, P, S, Si, Cu, Ni, Cr, Al, Ce, Co, Mg, Mo, Ti, V. Rows include various grades like SCRM 666/12, BS 285BL, BS 285BK, etc.

Table with columns: Number, As, B, Ca, Fe, La, Nb, Pb, Sn, W, Zr, Units. Rows include various grades and their units like 48 mm x 42 mm x 12 mm.

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

Table with columns: Number, C, Mn, P, S, Si, Cu, Ni, Cr, Mo, Al, Ti, V, Co, As, Sn, Ce, Mg. Rows include CTIF SiMo-3, CTIF SiMo-1, CTIF SiMo-5, CTIF SiMo-2, BAS SIMO 1/3, CTIF SiMo-4, BAS SIMO 2/3.

CAST IRON WITH MAGNESIUM - continued on the next page

= Class, where 1 = CRM and 2 = RM

#	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 2863-11	4.03	0.61	0.613	0.026	0.79	0.96	0.46	1.65	0.0075	.	.	.	.	0.94	0.29	0.079
1	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
1	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	0.0174
1	CZ 02033 2g	3.78	0.096	0.125	0.009	1.10	0.88	0.650	0.027	0.036	(0.004)	0.019	0.013	0.012	(0.002)	0.029	0.017
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	Y 4510251-16	3.75	0.39	0.034	0.012	1.69	0.423	0.60	0.52	0.050	.	0.061	0.034	.	0.203	0.036	0.198
1	VS ChG 25	3.74	0.68	0.0090	0.0035	1.46	0.79	0.38	0.25	0.037	.	0.009	.	.	0.253	0.017	0.086
1	Y 451047	3.73	2.35	0.51	0.0036	2.02	1.98	3.57	1.58	0.060	.	.	.	.	0.050	0.40	0.018
1	SCRM 668/13	3.724	0.712	.	.	1.400	0.751	0.097	0.962	0.0116	.	.	0.0245	.	0.0193	0.091	0.193
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	SCRM 670/20	3.576	0.367	.	0.0110	2.261	0.959	0.892	0.505	0.0454	.	.	0.0105	.	0.0198	0.110	0.0261
1	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
1	11X SG1A	3.53	0.278	0.0363	0.0095	2.96	0.0194	0.042	0.0299	0.040	.	0.0187	.	.	.	0.0150	.
1	CZ 20034 15b	3.52	0.048	0.054	0.0031	1.66	1.322	0.681	0.067	0.037	.	0.029	0.021	0.027	0.004	0.025	0.013
1	CZ SPL17 32A	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	11X SG2A	3.48	0.297	0.0353	0.0075	3.03	0.0245	0.0263	0.0304	0.055	.	0.0238	.	.	.	0.0146	.
1	Y 451042	3.47	0.71	0.043	0.012	2.11	0.35	1.39	1.02	0.023	.	.	.	.	0.22	0.029	0.15
1	CZ 02033 2e	3.47	0.168	0.106	0.010	1.03	0.89	0.620	0.043	0.038	(0.006)	0.025	0.017	0.005	(0.002)	0.039	0.026
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
1	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
1	CZ 02033 3b	3.38	0.260	0.012	0.012	1.74	0.400	0.049	0.235	0.012	.	0.026	0.006	0.012	0.456	0.023	0.009
1	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	0.127	0.010	.	0.015	.	.	0.0024	0.0041	0.0020
1	CZ 20034 14a	3.29	0.218	0.0115	0.0103	2.25	0.578	0.021	0.042	0.015	.	0.009	0.009	0.005	0.633	0.018	0.013
1	CZ 20034 14b	3.26	0.240	0.0115	0.0096	2.34	0.640	0.020	0.042	0.015	.	0.012	0.012	0.005	0.635	0.021	0.012
1	BS 286AF	3.24	0.740	0.201	0.0162	2.03	0.341	1.360	0.165	0.037	.	(0.009)	.	(0.004)	0.258	0.054	0.151
1	CZ 02033 3d	3.24	0.317	0.008	0.006	2.12	0.396	0.025	0.236	0.016	.	0.055	0.006	0.014	0.453	0.016	0.072
1	CZ 02033 1f	3.23	0.693	0.043	0.005	2.68	0.018	0.373	0.035	0.070	(0.007)	0.073	0.036	0.024	0.182	0.041	0.014
1	CZ 02033 1g	3.22	0.701	0.036	0.007	2.53	0.027	0.357	0.044	0.050	.	0.062	0.023	0.010	0.185	0.054	0.019
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mg	Te	Al	Ce	Co	Mo	Ti	V
1	CZ 20034 13c	3.15	0.704	0.0261	0.0044	2.23	0.089	1.299	0.124	0.064	.	0.022	0.011	0.024	0.360	0.015	0.043
1	CZ 02033 1e	3.15	0.718	0.037	0.006	2.72	0.012	0.367	0.037	0.044	.	0.058	0.027	0.022	0.185	0.046	0.015
1	CZ 20034 14c	3.14	0.275	0.0162	0.0081	2.49	0.585	0.030	0.045	0.017	.	0.007	0.019	0.009	0.646	0.018	0.013
1	CZ 20034 13a	3.13	0.691	0.0244	0.0046	2.19	0.021	1.266	0.122	0.053	.	0.017	0.011	0.024	0.364	0.014	0.048
1	CZ 20034 13b	3.12	0.692	0.0243	0.0041	2.12	0.021	1.313	0.125	0.054	.	0.019	0.011	0.024	0.364	0.012	0.048
1	CKD 247B	3.09	1.05	0.098	0.0034	1.20	0.822	0.437	0.041	0.056	(0.008)	0.043	0.053	0.095	0.023	0.067	0.013
1	VS ChG 24	3.05	0.245	0.260	0.0048	2.50	0.100	0.87	0.031	0.015	.	0.007	.	.	0.031	0.060	0.0067
1	Y 2863-9	3.04	1.43	0.049	0.015	1.53	0.269	1.59	0.72	0.043	.	.	.	.	1.38	0.212	0.41
1	VS ChM5/1	3.04	0.311	0.056	0.016	1.37	.	.	.	0.045	.	0.013	.	.	.	.	.
1	SCRM 667/13	3.04	0.222	.	.	2.866	0.497	1.303	0.294	0.070	.	.	0.110	.	.	.	0.103
1	VS ChM6/1	3.03	0.54	0.055	0.0074	2.75	.	.	.	0.072	.	0.022	.	.	.	.	.
1	VS ChM8/1	3.02	0.83	0.055	0.0034	3.39	.	.	.	0.105	.	0.041	.	.	.	.	.
1	CZ SPL17 36A	3.02	0.057	0.026	0.010	2.13	0.007	0.011	0.014	0.012	.	(0.003)	0.0007	(0.004)	0.004	0.021	0.021
1	VS ChM13	2.96	1.05	0.043	0.009	2.98	0.062	1.65	0.273	0.09	.	0.065	.	.	.	0.018	0.0096
1	SCRM 669/14	2.955	0.526	.	.	2.201	0.194	0.473	0.214	0.0224	.	.	0.0415	.	0.0550	0.0499	0.532
1	CKD 245B(U)	2.95	1.38	0.42	0.035	1.59	0.081	0.194	0.197	0.003	(0.017)	0.038	(0.00)	0.007	0.115	0.110	0.055
1	CKD 245A	2.94	1.38	0.41	0.039	1.58	0.076	0.161	0.166	0.003	(0.018)	0.019	(0.00)	0.003	0.114	0.087	0.073
1	VS ChG 26	(2.9)	0.126	0.123	0.0041	2.98	0.014	1.52	0.050	0.044	.	0.038	.	.	0.075	0.0026	0.040
1	VS ChM10	2.89	0.43	0.067	0.017	1.13	0.082	0.85	0.067	0.024	.	0.005	.	.	.	0.028	0.079
1	SRM C1137a	2.86	0.52	0.087	0.017	1.15	0.192	2.17	0.643	0.032	.	(0.007)	0.016	.	0.86	(0.04)	0.019
1	CZ SPL17 33A	2.75	0.710	0.060	0.007	3.10	0.730	0.389	0.239	0.021	.	0.054	0.026	0.015	0.220	0.130	0.356
1	CKD 246B	2.73	0.354	0.66	0.020	0.76	1.39	0.065	1.16	0.016	(0.00)	0.101	0.007	0.012	0.009	0.014	0.013
1	SRM C2424	2.68	0.268	0.041	0.024	3.37	0.125	0.061	0.13	0.006	.	(<0.01)	0.0046	(0.05)	0.019	0.050	0.083
1	VS ChM9	2.61	1.28	0.075	0.021	1.59	0.095	0.38	0.083	0.011	.	0.016	.	.	.	0.027	0.068
1	VS ChM11	2.26	0.77	0.032	0.011	2.32	0.067	1.75	0.122	0.066	.	0.035	.	.	.	0.014	0.0044
1	Y 2863-7	1.98	3.42	0.067	0.0061	3.10	0.089	4.47	0.150	0.050	.	.	0.019	.	0.052	0.060	0.87
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mg	Te	Al	Ce	Co	Mo	Ti	V

BS: 28-34 mm Ø x 17-35 mm

CKD 24x: 37 mm x 37 mm x ~15-20 mm

SCRM: 48 mm x 42 mm x 12 mm

VS: ~40 mm Ø x ~40 mm

CZ: 40 mm Ø x 18 mm

SRM: 32 mm Ø x 19 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 2863-11	(0.022)	0.053	.	.	.	.	0.33	(0.0057)	(0.174)	.	(0.108)	0.010	.	.
CZ SPL17 43A	.	0.0014	(0.002)	.	.	N:0.0045	0.008	0.014	(0.004)	.	0.067	0.038	Zn:0.013	.
CZ SPL17 42A	.	0.0036	(0.002)	.	.	N:0.0027	0.045	0.020	0.015	.	0.027	0.020	Zn:0.013	.
Y 451045	.	.	.	.	.	.	.	.	.	.	.	.	.	.
CZ 02033 2g	.	0.0023	0.006	.	.	.	.	0.008	0.029	.	0.015	(0.004)	.	Zn: 0.020
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
Y 4510251-16	.	0.0044	.	.	.	0.016	.	.	.	.	0.030	.	.	.
VS ChG 25	.	.	.	.	.	.	.	.	0.052	.	0.017	.	.	.
Y 451047	.	0.31	.	.	.	.	0.012	.	.	.	.	.	.	.
SCRM 668/13	.	.	.	.	.	.	.	.	.	.	.	.	.	.
CZ 02033 3c	(0.007)	0.0044	(0.002)	.	.	.	.	0.005	.	.	0.009	(0.003)	.	.
SCRM 666/12	.	.	.	.	.	.	.	.	.	.	.	.	.	.
SCRM 670/20	.	.	.	.	.	.	.	.	.	.	.	.	.	.
CZ SPL17 31A	.	(0.0004)	.	.	.	N:0.0042	.	.	.	.	(0.003)	(0.005)	.	.
11X SG1A	0.0021	.	.	.	.	.	.	.	.	.	.	.	Zn:0.041	-50Ø x -15mm
CZ 20034 15b	(0.003)	0.0033	0.010	.	.	.	.	.	0.058	.	0.005	0.007	.	.
CZ SPL17 34A	.	0.0076	(0.005)	.	.	N:0.0041	0.014	(0.006)	0.007	.	0.051	0.016	Zn:0.007	.
11X SG2A	0.0022	.	.	.	.	.	.	.	.	.	.	.	Zn:0.040	-50Ø x -15mm
Y 451042	.	.	.	.	.	.	.	.	.	.	.	.	.	.
CZ 02033 2e	.	0.0024	0.005	.	.	.	.	(0.004)	0.028	.	0.015	0.008	.	Zn: 0.025
CZ 20034 15c	(0.003)	0.0057	0.008	.	.	.	.	.	0.056	.	0.006	0.004	.	.
CZ SPL17 32A	.	(0.0005)	(0.007)	.	.	N:0.0042	.	0.022	0.023	.	(0.012)	(0.008)	Zn:0.011	.
CZ 02033 3b	.	0.0042	0.001	.	.	.	.	0.009	.	.	0.019	.	.	.
CZ SPL17 40A	.	0.0008	.	.	.	N:0.0063	.	.	.	.	(0.004)	.	Zn:(0.002)	.
VS ChG 28	.	.	.	.	.	.	.	.	0.015	.	0.0017	.	.	.
CZ 20034 14a	0.036	0.0096	0.007	.	.	.	.	(0.005)	0.015	.	0.027	(0.005)	0.011	Zn: 0.010
CZ 20034 14b	0.034	0.0100	0.007	.	.	.	.	(0.005)	0.016	.	0.028	(0.005)	0.014	Zn: 0.009
BS 286AF	(0.01)	0.0085	.	(0.001)	[91.4]	.	(0.003)	.	.	.	(0.004)	(0.008)	(0.007)	<u>17025</u>
CZ 02033 3d	(0.018)	0.0071	(0.002)	.	.	.	.	0.005	0.007	.	0.009	.	.	.
CZ 02033 1f	.	0.0043	(0.001)	.	.	.	.	0.009	.	.	0.030	0.022	(0.008)	.
CZ 02033 1g	.	0.0034	0.005	.	.	.	.	0.016	.	.	0.028	0.015	(0.004)	.

Number	As	B	Bi	Ca	Fe	La	Nb	Pb	Sb	Se	Sn	W	Zr	Other
CZ 20034 13c	(0.002)	.	.	.	.	.	.	.	(0.002)	.	0.014	(0.003)	(0.02)	.
CZ 02033 1e	.	0.0036	(0.002)	.	.	.	.	0.007	.	.	0.032	0.021	(0.007)	Zn: 0.009
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	.
CKD 247B	0.010	0.000	0.007	.	(92.7)	0.019	0.052	(0.002)	0.005	(0.000)	0.038	(0.002)	0.009	Zn: 0.012
VS ChG 24	.	.	.	.	.	.	.	.	0.009	.	0.077	.	.	.
Y 2863-9	(0.041)	0.153	.	.	.	.	0.11	(0.093)	(0.116)	.	(0.124)	.	.	.
VS ChM5/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
SCRM 667/13	.	.	.	.	.	.	.	.	.	.	.	.	.	.
VS ChM6/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
VS ChM8/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
CZ SPL17 36A	.	0.022	(0.007)	.	.	N:0.0038	.	0.016	.	.	(0.002)	.	Zn:(0.002)	.
VS ChM13	.	.	.	.	.	.	.	.	.	.	.	.	.	.
SCRM 669/14	.	.	.	.	.	.	.	.	.	.	.	.	.	.
CKD 245B(U)	0.006	0.003	0.009	.	(92.5)	(0.00)	0.029	0.020	0.052	(0.029)	0.076	0.020	0.004	last
CKD 245A	0.002	0.007	0.008	.	(92.7)	(0.00)	(0.001)	0.015	0.050	(0.036)	0.076	0.021	0.003	last
VS ChG 26	.	.	.	.	.	.	.	.	.	.	0.031	.	.	.
VS ChM10	.	.	.	.	.	.	.	.	.	.	.	.	.	.
SRM C1137a	.	.	.	.	.	.	.	.	.	.	.	.	.	.
CZ SPL17 33A	.	0.0064	(0.002)	.	.	N:0.0043	0.032	0.010	0.019	.	0.039	0.079	Zn:0.009	.
CKD 246B	0.003	0.000	(0.001)	.	(92.6)	0.003	(0.001)	(0.002)	0.004	(0.00)	0.002	(0.011)	0.000	last
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)	.	.	.

BS: 28-34 mm Ø x 17-35 mm

CKD 24x: 37 mm x 37 mm x ~13-20 mm
CZ: 40 mm Ø x 18 mmSCRM: 48 mm x 42 mm x 12 mm
SRM: 32 mm Ø x 19 mmVS: ~39 mm Ø x ~39 mm
Y: 30 mm Ø x 30 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	X
0.010 - 0.014	0.01	.	.	.	X	X	X	.	.	X	X	X	X
0.015 - 0.024	0.02	X	.	.	X	X	X	.	X	X	X	X	X
0.025 - 0.034	0.03	.	.	.	X	.	X	.	X	X	X	X	X
0.035 - 0.044	0.04	.	.	.	X	.	X	.	X	X	X	X	X
0.045 - 0.054	0.05	.	.	.	X	.	X	.	X	X	X	X	X
0.055 - 0.064	0.06	.	X	X	.	.	X	.	X	X	X	X	X
0.065 - 0.074	0.07	.	X	X	.	.	X	.	X	X	X	X	X
0.075 - 0.084	0.08	.	X	X	.	.	X	X	X	X	X	X	X
0.085 - 0.094	0.09	.	X	X	.	.	X	X	X	X	X	X	X
0.095 - 0.104	0.10	.	.	.	.	.	X	X	X	X	X	X	X
0.105 - 0.114	0.11	.	.	.	.	.	X	X	X	X	X	X	X
0.115 - 0.124	0.12	.	.	.	.	.	X	X	X	X	X	X	X
0.125 - 0.134	0.13	.	.	.	.	.	X	X	X	X	X	X	X
0.135 - 0.144	0.14	.	.	.	.	.	X	X	X	X	X	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	.	.	.	.	.	.	.	.	.	X	.	.

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
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 8/6	(2.7)	1.51	0.040	0.013	3.93	.	.	(0.2)	.	.	.	.	(0.3)
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

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 8/6	.	(0.003-0.006)	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
VS Chg 10/6	.	(0.003-0.006)	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
VS Chg 11/6	.	(0.003-0.006)	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
VS Chg 9/6	.	(0.003-0.006)	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 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 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
1	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	
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	SCRM 672/1	4.322	0.474	0.198	0.036	0.143	0.100	0.083	0.0186	0.0102	0.139	0.117		0.0047	0.0373	0.0988	
1	CZ 02033 4d	4.19	0.112	0.050	0.041	0.025	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	
2	BS CC-14	(4.04)	(0.01)	0.016	0.003	0.64	0.021	0.074	0.031	0.006	0.036	(0.003)		0.002	0.004	0.021	
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	CZ 02033 4b	3.95	0.145	0.041	0.046	0.252	0.062	0.023	0.049	0.003	0.005	0.005		0.001	0.006	0.004	0.008
1	Y 2582-6	3.93	1.46	0.168	0.124	0.99		0.094	0.387			(0.112)			0.105	0.506	
1	VS ChG 2/9	3.93	0.456	0.513	0.078	0.387	0.082		0.060						0.080	0.049	
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	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	
1	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 451043	3.69	0.49	0.063	0.049	1.50	0.34	0.23	0.47			0.22				0.11	
1	11X HPCSA	3.68	1.028	0.246	0.223	1.175			1.42								
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	VS ChG 1/9	3.61	1.12	0.184	0.038	1.13	0.041		0.017						0.014	0.006	
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	SCRM 660/10	3.522	0.398	0.143	0.1089	1.719											
1	VS ChG 5/9	3.51	0.60	0.104	0.036	0.84	0.037		0.307						(0.1)	0.441	
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 C2U	3.414	1.203	0.268	0.093	1.081	0.1085	1.702	0.882	0.053	0.226	0.111	(0.030)	0.046	0.094	0.314	
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	CZ 02033 8c	3.41	0.408	0.168	0.058	1.93	0.158	0.102	0.125	0.004	0.030	0.041		0.067	0.022	0.015	
1	11X C3AC	3.408	0.447	0.451	0.201	0.849	0.295	3.20	2.02	0.0090	0.241	0.216	(0.19)	0.209	0.040	0.692	0.0386
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	
1	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	11X HPC3J	3.38	1.287	2.01	0.0473	1.63		2.18	1.48			0.120					
1	VS ChG 1/5	3.38	1.09	0.160	0.029	1.04	(0.04)		(0.08)						0.005	0.050	
1	11X C10D **	3.35	0.75	0.10	0.083	1.85	0.63	0.85	0.42	0.02	0.060	0.29		0.037	0.045	0.10	
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	NCS HS11783	3.33	0.756	0.083	0.090	1.73	0.666	0.304	0.386			0.238		0.066	0.057	0.174	
1	SCRM 658/11	3.278	0.502	0.177	0.067	1.933											
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											

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	Nb	Sn	Ti	V	Zn
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	11X HPC1H	3.29	0.620	0.808	0.0035	3.27			1.056			0.060					
1	SCRM 665/4	3.25	0.24	1.09	0.053	1.66			(1)								
1	11X C9D	3.24	1.886	0.069	0.0260	1.462	0.581	2.79	1.206	0.051	0.1301	0.155	0.0766	0.040	(0.062)	0.359	0.009
1	VS ChG 4/9	3.24	1.42	0.030	0.024	0.455	0.199		0.155						0.10	0.169	
2	BAS NCRM3	3.24	0.67	0.125	0.090	0.29	1.21	3.64	3.95			0.78				0.02	
1	11X HPC1G	3.22	0.499	0.75	0.0311	2.60											
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)											
1	VS ChG 31	3.19	0.97	0.047	0.043	1.60	0.281		0.156			0.0069		0.013	0.0063	0.0035	
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)	0.010	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	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	
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	KUT 204	3.15	0.80	0.023	(0.009)	1.79	0.64	1.09	1.22			1.38		(0.215)			
1	CZ 02033 6a	3.14	1.22	0.077	0.032												

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)	.	.	.	.	.	0.0036	(0.002)	.	.	.	(0.005)	.	40 mm Ø x 18 mm
CZ 02033 4e	.	.	(0.002)	.	.	.	.	.	.	(0.002)	.	.	.	.	40 mm Ø x 18 mm
SCRM 672/1	0.0079	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 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 30 mm
BS CC-14	(<0.001)	(0.0003)	(<0.0005)	11	(0.002)	(0.0007)	(0.024)	.	0.0002	(0.001)	.	0.005	(0.003)	(0.002)	32 mm Ø x 17 mm last
DSZU CH04	.	(0.0007)	.	(7)	.	.	(0.0001)	.	(0.007)	.	.	.	(<0.0002)	.	~35 mm x ~35 mm
DSZU CH05	.	(0.03)	.	(20)	.	.	(0.001)	.	.	.	.	.	.	.	~30 mm x ~35 mm
CZ 02033 4b	.	.	.	.	.	.	.	.	0.004	(0.001)	.	.	.	.	40 mm Ø x 18 mm
Y 2582-6	0.0018	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 30 mm
VS ChG 2/9	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
DSZU CH06	.	(0.02)	.	(10)	.	.	.	.	.	.	.	.	0.1	.	~35 mm x ~35 mm
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
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	.	.	.	.	.	.	.	.	.	.	.	~35 mm Ø x ~20 mm
SCRM 674/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
Y 2582-4	0.0017	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 30 mm
CZ SPL17 39A	.	0.0195	0.008	.	.	.	.	0.0037	0.017	0.037	.	.	.	.	40 mm Ø x 18 mm
Y 451043	.	.	.	.	.	.	.	.	.	0.12	.	.	.	.	30 mm Ø x 30 mm last
11X HPC5A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 17 mm
Y 2582-5	0.0022	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 30 mm
VS ChG 1/9	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 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
VS ChG 3/9	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
VS ChG 27	.	.	.	.	.	.	.	.	.	0.029	.	.	.	.	~40 mm Ø x ~40 mm
SCRM 660/10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
VS ChG 5/9	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
Y 2863-5	.	0.060	.	.	.	.	.	.	.	.	.	.	0.158	.	30 mm Ø x 30 mm
11X C2U	0.0288	0.0213	0.0055	.	.	.	.	0.0110	0.023	0.104	0.0199	.	0.062	.	~40 mm Ø x ~15 mm
CZ SPL17 41A	.	(0.0004)	(0.007)	.	.	.	.	0.0070	0.010	0.016	.	.	0.012	.	40 mm Ø x 18 mm
CZ 02033 8c	(0.006)	.	0.009	.	.	.	.	.	.	0.008	0.014	.	.	.	40 mm Ø x 18 mm
11X C3AC	0.098	0.0054	0.0144	.	.	.	.	0.0095	(0.022)	0.245	0.0193	.	0.0520	.	~40 mm Ø x ~15 mm
VS ChL1/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
CZ SPL17 38A	.	0.0027	(0.002)	.	.	.	.	0.0100	(0.003)	0.018	.	.	(0.005)	.	40 mm Ø x 18 mm
11X HPC3J	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
VS ChG 1/5	(0.002)	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm last
11X C10D **	0.022	** Provisional Analysis	.	.	.	.	.	0.006	0.003	0.035	.	.	0.32	.	~40 mm Ø x ~15 mm
VS ChG 35	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm
KUT 120	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
NCS HS11783	0.0085	.	.	.	.	.	.	.	.	0.142	.	.	.	.	31 mm Ø x 28 mm
SCRM 658/11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
Y 2863-3	.	0.056	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 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
Number	As	B	Bi	Ca*	Ce	La	Mg	N	Pb	Sb	Se	Te	W	Zr	Units
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 30 mm
11X HPC1H	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
SCRM 665/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
11X C9D	0.068	0.0049	.	.	.	.	.	.	0.0052	0.149	.	0.011	0.304	.	~40 mm Ø x ~15 mm
VS ChG 4/9	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
BAS NCRM3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
11X HPC1G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
NCS HS11782	0.0065	.	.	.	.	.	.	.	.	.	.	.	.	.	31 mm Ø x 28 mm
KUT 125	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
VS ChG 31	.	.	0.068	.	.	.	.	.	.	.	.	.	.	.	~35 mm Ø x ~20 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
VS ChM 12	.	.	.	.	.	.	(0.08)	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
SCRM 671/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 12 mm
KUT 126	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 202	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 204	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
CZ 02033 6a	.	.	.	.	.	.	.	.	.	0.056	.	.	.	.	40 mm Ø x 18 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 02033 7a	.	.	.	.	.	.	.	.	.	.	.	.	0.022	.	40 mm Ø x 18 mm
SCRM 653/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm last
CZ SPL17 37A	.	0.0124	(0.002)	.	.	.	.	0.0089	(0.002)	.	.	.	0.026	.	40 mm Ø x 18 mm
VS ChG 30	.	.	0.082	.	.	.	.	.	.	.	.	.	.	.	~35 mm Ø x ~20 mm
BAS NCRM1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
VS ChL3/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
DSZU CH08	.	(0.08)	.	(10)	.	.	.	.	.	.	.	.	.	.	~35 mm x ~35 mm
VS ChG 39	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm
BS CC-11	0.006	0.0012	(<0.0005)	2	(0.001)	(0.001)	(0.013)	.	0.0007	0.14	.	(0.002)	(0.002)	(0.002)	32 mm Ø x 17 mm last
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 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	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm
SCRM 657/8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 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
11X C1R	0.0141	0.0357	0.011	.	.	.	.	0.0091	0.005	0.046	0.0050	.	0.100	0.0030	~40 mm Ø x ~15 mm
VS ChG34	.	.	0.223	.	.	.	.	.	.	.	.	.	.	.	~35 mm Ø x ~20 mm
SCRM 664/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 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 CSY	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	Y 2863-40	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	11X C7N	2.51	1.942	0.0266	0.0101	0.829	0.075	0.0303	0.507	0.0127	0.0335	0.071	0.051	0.0114	0.022	0.036	0.0226
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 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	SCRM 652/4	2.34	1.19	0.071	0.129	0.878	.	.	(1)	.	.	.	.	.	.	.	.
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 5a	2.30	0.804	0.035	0.100	1.26	0.014	0.096	0.054	0.060	.	0.100	.	.	0.008	0.005	.
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	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	CKD 242A	1.84	0.060	0.039	0.036	3.06	0.055	0.039	0.029	0.036	0.002	1.13	0.013	0.010	0.19	0.37	(0.00)
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
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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 ~38 mm
DSZU CH01	.	(0.03)	.	(10)	.	(0.0005)	.	.	.	.	.	(0.02)	.	~30 mm x ~35 mm
VS ChG 40	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 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
11X C7N	0.0159	0.0097	0.0137	.	.	.	0.025	0.0106	0.025	.	.	0.066	(0.003)	40 mm Ø x 15 mm
Y 2863-2	.	0.0025	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 30 mm
VS ChG 37	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 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 38	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 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
SCRM 652/4	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
DSZU CH07	.	(0.13)	.	(10)	.	(0.01)	.	.	.	.	.	.	.	~35 mm x ~35 mm
CZ 02033 5a	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 18 mm
CZ 02033 5c	.	0.0078	0.007	.	.	.	.	.	.	(0.002)	(0.010)	.	(0.009)	40 mm Ø x 18 mm
SCRM 675	0.035	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
SCRM 655/4	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
CKD 242A	0.015	0.008	(0.015)	.	(0.00)	0.000	.	(0.012)	0.007	.	(0.08)	(0.007)	(0.000)	37mm x 37mm x 18 or 20mm
Y 2863-1	.	0.0024	30 mm Ø x 30 mm

Number	As	B	Bi	Ca*	Ce	Mg	N	Pb	Sb	Se	Te	W	Zr	Units
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#	Number	ALLOYED CAST IRON				# = Class, where 1 = CRM and 2 = RM						Pb	Sn	Ti	V	Mg	N
		C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo						
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 CRRM5/2	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 PML15	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	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	.	.
1	11X 15309S	3.05	1.506	0.040	0.086	1.398	0.505	0.919	23.26	.	0.249	.	.	0.0156	0.056	.	.
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	1.42	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	BAS CRRM4/2	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	11X 20001J	2.90	0.58	0.005	0.143	1.01	0.01	21.4	1.50	.	.	.	.	.	.	.	.
2	11X S/2 Cr1E	2.83	1.68	0.31	0.011	2.85	0.02	16.5	2.48	.	.	.	.	.	.	.	.
1	11X 0331-1J	2.82	1.646	0.069	0.13	2.50	7.59	12.43	0.607	0.122	0.120	0.0327	0.0439	0.1099	.	.	.
2	BAS NIRM2/1	2.81	2.08	0.129	0.010	1.50	5.98	13.95	1.48	.	.	.	.	.	.	0.050	.
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 ChG45	(2.7)	1.01	0.096	0.047	2.96	0.040	0.60	32.65	.	0.198	.	.	0.011	0.111	.	.
2	11X 20002J	2.67	1.06	0.060	0.045	2.04	0.30	20.0	2.03	.	.	.	.	.	.	.	.
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 0331-2K	2.64	1.272	0.049	0.119	2.32	6.47	14.26	1.025	0.191	0.0644	0.0205	0.0205	0.14	0.0158	.	.
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
1	11X 15295R	2.52	0.491	0.0504	0.0413	0.589	0.197	0.304	27.53	0.19	0.391	(0.015)	0.047	.	0.201	.	.
2	BAS NIRM3	2.51	0.51	0.208	0.096	2.21	1.00	17.8	2.43	.	.	.	.	.	.	.	.
2	BAS NIRM6	2.44	4.00	0.217	0.062	2.43	0.10	26.7	1.07	.	0.45	.	.	.	.	.	.
1	Y 451052-3	2.40	1.06	0.115	0.015	0.821	0.953	1.55	13.30	.	0.869	.	.	0.171	0.482	.	.
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	.	.
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	11X 15294V	2.29	0.467	0.093	0.031	0.399	0.134	0.649	30.82	(0.177)	0.325	0.0084	0.0560	.	0.117	.	.
1	CKD 251	2.25	1.97	0.015	0.015	1.14	0.38	19.7	1.07	(0.02)	0.12	(0.009)	(0.01)	(0.005)	(0.02)	0.022	.
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	BAS NIRM1	2.05	6.72	0.055	0.005	3.15	0.20	11.80	0.246	.	.	.	.	.	.	0.021	.
2	BAS NIRM7	2.05	0.71	0.058	0.020	3.05	0.52	32.9	3.53	.	0.99	.	.	.	.	0.019	.
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 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
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	.	.
2	BAS NIRM8/1	1.34	1.60	0.109	0.010	5.42	0.23	35.2	2.34	.	0.75	.	.	.	.	0.043	.
1	VS ChG44	1.24	0.87	(1.2)	0.076	1.50	2.27	0.175	25.44	.	0.035	.	.	0.104	0.079	.	.
1	Y TSK203	1.23	0.68	0.117	0.044	0.46	0.75	1.55	19.93	.	.	.	.	.	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	Ce	Co	Nb	W	Zr	Units				Other						
	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	B:0.177	.	0.018	0.015	.	30 mm Ø x 30 mm										
	BS PML15	.	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		
	Y 451052-7	B:0.015	.	0.010	0.175	.	30 mm Ø x 30 mm										
	11X 15309S	.	0.032	0.0192	0.015	.	~40 mm Ø x ~15 mm										
	SRM C1290	.	.	.	.	.	32 mm Ø x 19 mm									
	Y TSK205	.	.	.	.	.	35 mm Ø x 30 mm									
	Y 451054-2	.	.	.	.	.	30 mm Ø x 30 mm									
	NCS HS11788	B:0.0008	(0.0063)	.	(0.0002)	.	31 mm Ø x 28 mm				As: 0.014						
	Y 451052-2	B:0.142	.	0.182	1.99	.	30 mm Ø x 30 mm										
	BAS NIRM5/1	0.016	.	0.15	.	.	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									
	11X 20001K	.	.	.	.	.	40 mm Ø x 15 mm									
	11X S/2 Cr1E	.	.	.	.	.	40 mm Ø x 15 mm									
	11X 0331-1J	.	0.1117	0.149	.	.	~40 mm Ø x ~15 mm										
	BAS NIRM2/1	0.015	.	.	.	.	48 mm x 42 mm x 12 mm									
	Y 451054-3	.	.	.	.	.	30 mm Ø x 30 mm									
	VS ChG45	.	.	.	.	.	~35 mm Ø x ~17 mm									
	11X 20002J	.	.	.	.	.	40 mm Ø x 15 mm									
	BAS NCRM4	.	.	.	.	.	40 mm x 37 mm x 10 mm									
	NCS HS11787	B:0.0007	(0.0054)	.	(0.0002)	.	31 mm Ø x 28 mm				As: 0.0075						
	11X 0331-2K	.	0.161	0.104	.	.	~40 mm Ø x ~15 mm										
	Y TSK201	.	.	.	.	.	35 mm Ø x 30 mm									
	11X 15295R	.	1.510	(0.036)	0.195	.	~40 mm Ø x ~15 mm										
	BAS NIRM3	0.007	.	0.09	.	.	40 mm x 37 mm x 10 mm										
	BAS NIRM6	0.003	.	.	.	.	40 mm x 37 mm x 10 mm									
	Y 451052-3	B:0.102	.	0.149	1.57	.	30 mm Ø x 30 mm										
	BAS CRRM3/2	.	.	.	.	.	40 mm x 37 mm x 10 mm									
	Y 451054-4	.	.	.													

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 F019	4.04	1.05	1.05	0.032	0.057	.	.	.	.	.	.	.	.	.	.
CTIF F012	3.71	1.86	0.44	0.038	0.004	0.77	.	.	0.008	.	.	0.011	.	.	.
CTIF F08	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 F06	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 F010	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 F011	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 F018	3.43	1.24	0.590	1.34	0.136	0.049	0.140	0.170	.	.	0.179	0.046	0.057	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 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 F05	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 FFA 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 F017	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	0.025	0.33	24.63	3.05	.	.	.	.	.	.	.
CTIF FT1	2.9	2.12	0.71	0.12	0.025	0.012	0.11	0.057	.	.	.	0.067	0.19	0.525	.

Number	C	Si	Mn	P	S	Cu	Ni	Cr	Al	Co	Mo	Sn	Ti	V	W
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 F04	2.81	1.51	0.64	0.58	0.009	0.31	0.32	0.17	.	.	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 F09	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	0.066	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 F07	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 NR 2S	2.32	1.43	0.530	0.062	0.0210	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	0.031	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
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CAST IRON MUSHROOMS

CONTINUED FROM THE PREVIOUS PAGE

Number	As	B	Bs	Bi	Ce	N	Nb	Pb	Sb	Te	Zn
CTIF F019	0.0005	.
CTIF F012
CTIF F08
CTIF FCR7
CTIF F06
CTIF F010
CTIF NH3
CTIF F011
CTIF F018	0.0040	.	.	.	.	.
CTIF NH7-1
CTIF FCR5
CTIF FT2-1
CTIF NiMo1
CTIF FL7	(0.0266)	(0.010)	.	(0.010)	.	0.0035	.	.	.	.	.
CTIF FT3
CTIF NH7-2
CTIF F05
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 FFA 1	0.0109	.	.	.	.	0.0125	.	.	.	.	.
CTIF NR 8S
CTIF F017
CTIF FAL 1
CTIF NR 3L
CTIF NH1
CTIF NH8
CTIF NR 3S
CTIF FT1

Number	As	B	Bs	Bi	Ce	N	Nb	Pb	Sb	Te	Zn
CTIF NR 8L
CTIF NH4
CTIF F04	last of stock
CTIF FCR2
CTIF FL5	.	(0.002)	.	(0.0005)	.	.	.	.	.	.	.
CTIF FCR Ni3
CTIF NH6
CTIF F09
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 F07
CTIF NR 4L
CTIF NR 2S
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 Nil

Number	As	B	Bs	Bi	Ce	N	Nb	Pb	Sb	Te	Zn
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ALLOY	ISO?	NUMBER	ALLOY	ISO?	NUMBER	ALLOY	ISO?	NUMBER
1.0812		ECRM 191-2D	15-5PH		BS 9622	310		CZ SL-3A
1.2344		ECRM 271-1D	15-5PH		ECRM 273-1D	310		IARM 4E
1.2367		HRT FE2012-H	15-5PH		IARM 22C	310		IARM 4F
1.4435, 1.4436		JK 27B	17-4PH		13X PH2	310		IARM 4G
1.4765		ECRM 299-1D	17-4PH		13X PH17400	310		SS 464/1
1.5415		HRT FE2012-N	17-4PH		BS 17-4PHA	3115		BS XCCT
1.6587		HRT FE2013-N	17-4PH		BS 17-4PHB	314		IMZ 165
1.7149 20MnCrS5		ECRM 187-2D	17-4PH		BS 17-4PHC	314		IMZ 166A
1.7160		ECRM 194-1D	17-4PH		SRM C2400	316	17025	BS 316C
1.8550		ECRM 129-3D	17-7PH		13X PH17700	316		IARM 5H
1.8519		HRT FE2010-N	17-7PH 25(preceded 17025)		BS 192	316		IARM 5i
1.8928		ECRM 194-2D	17-7PH 25(preceded 17025)		BS 192A	316		NILAB 500HAD
1005	17025	BS LC-6	17-7PH		IARM 152C	316		SRM 1155A
1005		BS 1005	17-7PH		IARM Fe177PH-18	316 H		CT 316
1005		ECRM 064-2D	182FM		BS 150	316 H		IARM 339A
1005		RM Fe 1/5	18Cr2Ni12Mn		CT ISO035A	316 L		13X 31603
1005		SRM 1765	201		BS 191	316 L	17025	BS 316D
1005		SRM 1766	201		SRM 1297	316 L	17025	BS 316E
1005		SS 111/1	20Cb3		BS 187A	316 L		CZ SL-2A
1006		BS XCCS-1	20Cb3		CT 20 Cb-3	316 L		IARM Fe316L-18
1008		ECRM 057-2D	20MoCr4		ECRM 197-1D	316 L		IARM 163E
1009		BS 1009	2101		IARM 292A	316 L		SS 466/2
1009		IMZ 71	21Cr6Ni9Mn		CT ISO129A	316 Ti		ECRM 284-2D
100C6		IRSID 1747	2205	17025	BS 2205	317 L		BS 317L
1010		IMZ 111	2205		IARM 212D	317 L	25(pre-17025)	BS 9941
1010		IRSID 1665	2205		IARM Fe2205-18	317 L	25(pre-17025)	BS 9942
1011		IMZ 73	2304		IARM 317A	317 L		IARM 153C
1016	17025	BS 1016	2507		IARM 301B	318	17025	BS 2205
1017		IMZ 112	253 MA	25(pre-17025)	BS 253	321		13X 32100
1017		IRSID 1664	253 MA		IARM 316A	321	17025	BS 85D
1018		12X 10180B	254 SMO		13X 31254	321		BS 321C
1018		12X 10180C	254 SMO		IARM 302B	321		BS 321D
1018	17025	BS 1018	254 SMO		NILAB 501HAD	321		IARM 6i
1018	17025	BS 2931B	255, Duplex		IARM 239B	321		IARM 6J
1018		ECRM 087-1D	255, Duplex		IARM 239C	321		SRM 1171
1018		IARM 28K	300M		12X 44220	321		SS 465/1
1020	17025	BS 1020	300M	17025	BS 300	321 - Ti		IMZ 152
1026	17025	BS 1026	300M		IARM 340A	32750		13X NSAL3
1026		IARM 359A	301		IARM 289A	330		IARM 7C
1030	17025	BS 1030	301		IRSID 1819	347		13X 34700
1030		IARM 209D	302		IARM 241D	347		BS 347A
1033		IRSID 1663	302 HQ		IARM 234C	347		BS 347B
1035	17025	BS 1035	303		13X 30300	347		IARM 8G
1035		IRSID 1645	303	17025	BS 303	347		IARM 8H
1035		IARM 360A	303		CT 303	347		IARM 8i
1039		IRSID 1637	303		CZ SP-1A	347 H		BS 87F
1040		12X 10400	303		IARM Fe303-18	348		SRM 1172
1040	17025	BS 3941	303 Se		IARM 253A	355	17025	BS 355
1040		IARM 210D	303 Se		IARM 253B	355		IARM 335A
1040		IRSID 1657	304		IARM 2H	35MV7		IRSID 1750
1042		IRSID 1656	304 H		13X NSB1	405		SRM 1295
1042		NM EN-8	304 H + Ca	17025	BS CA304-4	409 + Cr		NCS HS20743
1043		IRSID 1652	304 H		CT 304	410	25(pre-17025)	BS 0021
1045		BS 56E	304 H		IARM Fe304H-18	410, F6NM	25(pre-17025)	BS 0022
1045	17025	BS 56H	304 H		SS 468/1	410	17025	BS 410C
1045		IARM 200D	304 L	17025	BS 304	410		CT 410
1045		IPT 503	304 L	17025	BS 304A	410		IARM Fe410-18
1050		IARM 254A	304 L	17025	BS 304B	410 + Mo		ECRM 296-1D
1055		NM 3405.01	304 L		BS SS3951	410 + Mo		IMZ 161
1060		IARM 373A	304 L		IARM 162D	410 H		13X 41001
1069		ECRM 059-2D	304 L		IARM Fe304L-18	4130	17025	BS 4130
1078		ECRM 056-2D	304 L		ECRM 287-1D	4130		IARM 143F
1078		SRM 1224	304 L		ECRM 292-1D	4130		IPT 501
1090		SS 602/2	304 L		IARM 162C	4130		SRM 1225
1095		SRM 1227	304 L		SS 463/1	4140		12X 41400
1117 25(preceded 17025)		BS 3993	305		CT 305	4140	25(pre-17025)	BS 1962
1117		BS 65C	305		CT X52353	4140		IARM 30H
1117		IARM 29E	305		ECRM 297-1D	4140		IARM 30J
1118		IARM 307A	308		DSZU C017	4140 Bi		BS 4140A
1140 P		BS 52D	309		13X 30908	4140 Bi		BS 4140B
1141		BS 66B	309		BS 82D	41L40MOD	17025	BS 70B
1141		IARM 348A	309		BS 82E	41L40MOD		BS 70C
1144	17025	BS 1144	309		IARM 3E	4150 Bi & S		BS 4150MOD
1144	17025	BS 1144A	310		13X 31008	4150 S		BS 4150MOD-A
1144		IARM 199C	310		BS 83G	4150 S	17025	BS 42
11L17	17025	BS 75F	310	25(pre-17025)	BS 9841	4150 S		BS 42A
11L17	17025	BS 75G	310	25(pre-17025)	BS 9842	416		BS 90F
1215	17025	BS 66L				416	17025	BS 416
1215		IARM 206B				416		CT 416
12L14	17025	BS 74C				416		IARM 10D
12L14		IARM 183C				416		SRM 1223
12Mn18Cr		BS 193				416 H		13X 41600
1345		BS XCCV				416 Se		BS 151
13-8PH		13X PH13800				418		IARM Fe418-18
13-8PH		BS 184A				41CAD7		IRSID 1749
13-8PH		CT X92834				41L40	17025	BS 70B
1429		ECRM 058-2D				41L50	17025	BS 72B
1513		IMZ 76				42		CT ISO138A
1526 MOD		SRM 1269				42		CT ISO139A
1541		IARM 349A				420		BS SS4951
1541		IPT 504				420		BS SS4952
1541		IRSID 1648				420		ECRM 272-1D
1544		IRSID 1644				420		IARM 154B
15-5PH		BS 185A				420		IARM 154C
15-5PH		BS 9621				420		SS 469

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ALLOY	ISO?	NUMBER	ALLOY	ISO?	NUMBER	ALLOY	ISO?	NUMBER
420 F		BS 152	Aermet 100		CT ISO045A	High Perm		CT ISO136A
420 F S		IARM 352A	Aermet 100		IARM 242A	High Perm 49		CT ISO141A
422	17025	13X 42200	AL6XN	17025	BS 189A	HSLA 100		SRM 1271
422		BS 422	AL6XN		IARM 157D	HY 130		SRM 1226
422		IARM 205D	C-.5Mo		BS 3952	HY 80		SRM 1286
430	17025	BS 430	C-.5Mo		IARM 229B	Hy-Tuff		IARM 342A
430		IARM 11D	C-250		IARM 308A	Invar		14X 93603
430		NCS HS20742	C-350		IARM 309A	Invar-36 + Se		BS 186A
430 F		BS 153	CA6NM		HRT FE2009-H	Invar-36 + Se		IARM 24B
430 F		BS 154	CA6NM		IARM 327A	Invar 42		14X 94100
430 F S		IARM 355A	CD3MN		ECRM 298-1D	ISO 898-1		SS 457/2
431	17025	BS 431	CD4MCU		BS CD4MCU	KOVAR	17025	BS 160A
431		BS 92B	CD4MCU		BS CD4MCU-A	KOVAR		IARM 98B
431		IARM 12C	CD6MN		VS LG58	L-2, 6150		BS 43A
431		HRT FE2010-H	CF-3		IRSID 1820	L-6	17025	BS 39B
431		SRM 1219	CLA1		IARM 164A	L-6		IARM 43B
4320		BS 3961	CLA11		IARM 180A	LDX2101		13X 32101
4330 MOD		BS 4330V	CLA5		IARM 168A	LF-2		BS 2931B
4330 MOD		IARM 330B	CLA9		IARM 172A	LF-2	17025	BS LF2B
4340	17025	BS 4340	CPM15V	17025	BS PM15	LF-2		SS 601/2
4340	17025	BS 4340A	Custom 450	25(pre-17025)	BS 9811	LF-3		BS LF3
4340		IARM 31G	Custom 450	25(pre-17025)	BS 9812	M-1		CT M1
440 C		13X 44004	Custom 450		CT 450	M-1		IARM 304A
440 C	17025	BS 93F	Custom 450		IARM 15B	M-10		CT M10
440 C		IARM 13D	Custom 455		BS SS1961	M-10		IARM 324A
440 F		BS 155	Custom 455		BS SS1962	M-152		13X 64152
440 F Se		BS 156	Custom 455		CT 455	M-152		IARM 291A
440 F Se		IARM 353A	Custom 455		IARM 16C	M-2		CT M2
446		BS 94C	Custom 465		CT ISO123A	M-2		IARM 44C
450		IARM 15C	Custom 630		CT 630	M-2		SRM 1157
455		13X 45500	D-2		BS 37G	M-35		IARM 320A
446		IARM 14C	D-2		CT D2	M-4		IARM 251A
4615		BS 3962	D-2		IARM 41D	M-42		SS 487/1
4620		BS 4620	D-3, D-4		ECRM 288-1D	M-47	17025	BS M-47
4620		BS 51F	D-6	17025	BS D-6	M-50	17025	BS M-50
4620		IARM 33D	D6-AC		IARM 299A	M-50		IARM 306B
465		13X 46500	Duplex		13X NSA9	M-7		CT M7
465		IARM 354A	Duplex	17025	BS 2205	Maraging 250		CT 250
4820	17025	BS 4820A	Duplex		IMZ 163A	Maraging 300		CT 300
4820		IARM 155F	Duplex		IMZ 164	MaragingA538C	25(pre17025)	BS 161A
5160		IMZ 116	E52100		BS 2952	Mold Steel	17025	BS PP20
6150		BS 4941	E52100		BS 53G	NIT 135M		IARM 305B
6150		IARM 34C	E52100		IARM 49D	Nitriding 135G		BS 68B
6418		BS 6418	E52100		IARM 49E	Nitriding 135G	17025	BS 68E
6418		BS 69B	E52100 Bi		BS 53MOD	Nitronic 40		13X NSC6
6526		BS 9-4-30	Elect./ Magnetic		SRM 1159	Nitronic 40		BS 190
709		CT X67975	Electrolytic		SRM 1265a	Nitronic 40		IARM 19C
800	17025	BS 800	F-11		BS 45A	Nitronic 50		BS 180A
8620		BS 8620A (XRF)	F-11	17025	BS 45B	Nitronic 50	17025	BS 180B
8620	17025	BS 8620E	F-11		IARM 35L	Nitronic 50		IARM 17D
8620		BS 8620F	F-2		CT X27081	Nitronic 50		IARM FeN50-18
8620		IPT 502	F-22	17025	BS 46B	Nitronic 60		13X 21800
86L20	25(preceeded 17025)	BS 73B	F-22	25(preceeded 17025)	BS 1982	Nitronic 60		BS 181A
86L20		BS 73C	F-22		IARM 36C	Nitronic 60	17025	BS 181B
86L20		IARM 182B	F-22		SRM 1270	Nitronic 60		IARM 18D
8630		BS 8630	F-22 + Cr		HRT FE2009-N	NMS 100		IARM 214A
8740	17025	BS 67C	F-5		BS 47A	NMS 140		IARM 295A
8740		IARM 252C	F-5		BS 47B	NMS J38		IARM 294A
8740		IARM 252D	F-5		IARM 37C	O-1	17025	BS 35D
8740		IARM 252E	F-51	17025	BS 2205	O-1		CT O1
8740		IARM 252F	F-9	17025	BS 48B	O-6	17025	BS 41
904L		13X NSA12	F-91	17025	BS 9905A	O-6	25(preceeded 17025)	BS 41A
904L		ECRM 295-1D	Ferallium 255	17025	BS 179B	O-6		IARM 45A
9310		BS 58C	Ferallium 255	17025	BS 179C	O-6		IARM 45B
9310		BS 58E	F6NM	25(preceeded 17025)	BS 0022	P-6, HY100		BS 1972
9325	17025	BS 9325A	Greek Ascoloy		BS 183A	P-20		BS 55G
9-4-30		IARM 341A	Greek Ascoloy		IARM 20B	PP-20	17025	BS PP20
A-10		BS A-10	Greek Ascoloy		IARM 20C	Permendur 2V		IARM 326A
A-11		BS 10V	H-10		BS 49	RA330		BS 86F
A-11	17025	BS A-11	H-11		ECRM 276-2D	Railroad Steel		BS 54H
A-106 Gr B		SRM 1228	H-11		IARM 255A	S-1		BS 33D
A-193 B16		BS 4942	H-11		IARM 255B	S-1		BS 33E
A-193 B16	17025	BS 4942A	H-11		IMZ 173	S-1		IARM 46B
A-2		BS 36D	H-13	17025	BS H-13	S-5		BS 38C
A-2		CT A2	H-13		CT H13	S-5		IARM 47B
A-2		IARM 39B	H-13		IARM 42C	S-7		IARM 259A
A-2		IARM 39C	H-13		IMZ 174	S-7		SRM 1772
A-20		BS 187C	H-19	17025	BS H-19	S42027		13X 42027A
A-242		IPT 500	HC 250+V		SRM C1290	SA213-T22		IMZ 159
A-242 Mod		SRM C1285	High Perm		CT ISO124A	SA213-T22		IMZ 160
A-286		BS 188A				SA213-T22		IMZ 169
A-286	17025	BS 188B				SAE G2500		BS 20E
A-286		IARM 26D				STA 361		IARM 268B
A-286		SRM 1230				T-1		14X HS1
A-36	17025	BS 2931B				T-1	17025	BS 30D
A-36		IARM 213C				T-1		IARM 48C
A-36		IARM 213D				T-4		IARM 281A
A-36		SRM 1767				T-15	17025	BS TS15
A-485-1		BS A485-1				VM12		IMZ 196
A-6		BS 40B				W-5		14X 72305
A-6		IARM 40B				Z30C13		IRSID 1825
A-6		IARM 40C				Zeron 100, Duplex		13X NSA8
A706-60		IARM 380A				Zeron 100, Duplex		IARM 319A
A706-60		IARM 380B				Zeron 100, Duplex		IARM FeZ100-18
A706-80		IARM 381A						

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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
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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
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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	0.45-0.65	<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									Nb: 0.06-0.10 V: 0.18-0.25
LF2	<0.30	0.60-1.35	<0.035	<0.04	0.15-0.30	.	.	.	.	.
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	0.80-1.20	.	4.00-4.75	4.00-4.50	0.30-0.55	1.75-2.20	3.75-4.50	4.00-5.25
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	0.25-0.80	<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	.	0.90-1.20	.	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
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These are specifications,
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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	.	.	.	
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*	.	.	Zr: <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	.	.	.	Ti: >5xC
347	<0.08	<2.00	<0.045	<0.03	<1.00	.	9.00-13.00	17.00-19.00	.	.	>10xC	
348	<0.08	<2.00	<0.045	<0.03	<1.00	.	9.00-13.00	17.00-19.00	.	.	>10xC	Ta: <0.10
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
409	<0.08	<1.00	<0.04	<0.01	<1.00	.	<0.50	10.50-11.75	.	.	.	Ti: 6\mtC-0.75
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*	.	.	Zr: <0.60*
420	>0.15	<1.00	<0.04	<0.03	<1.00	.	.	12.00-14.00	.	.	.	
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	.	.	V: 0.15-0.30
422	continued											W: 0.75-1.25
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*	.	.	Zr: <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	.	

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