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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)
1	IARM 27D	0.003	(0.001)	0.001	0.0008	0.002	0.002	0.003	0.002	(0.001)	0.0009	0.004	0.0003	0.006
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	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
2	BS 50E	0.0010	0.015	0.003	0.012	0.007	0.019	0.030	0.075	0.006	<0.003	0.004	0.0092	0.024
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	.	.	0.00024	.
1	JSS 1000-1	0.00046	0.0027	0.00043	(0.0002)	0.0049	0.00154	0.00004	(0.0001)	0.00007	0.0078	0.00022	0.00078	.
1	ECRM 097-1D	0.00025	0.0064	0.0016	0.0022	(<0.01)	0.0020	0.0025	0.0016	(<0.001)	.	0.0037	0.0007	.

Number	As	B	Mg	Nb	Pb	Sn	Ti	V	W	Units
SRM 1265a	(0.0002)	0.00013	.	.	0.00001	.	(0.0001)	0.0006	.	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)	35 mm Ø x 19 mm
IARM 27D	<0.002	0.0002	.	<0.001	(0.0001)	0.001	0.001	<0.001	0.001	31 mm Ø x 2 or 18 mm
TL-1669 *	0.0017	0.00038	.	0.00046	0.00013	0.0071	0.0504	(0.0006)	.	38 mm Ø x 25 mm
TH 1045D	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm
BS LC-6	(<0.0020)	(0.0004)	(0.00003)	(<0.0010)	(<0.0020)	(<0.0020)	0.0006	(<0.0010)	(<0.0050)	39 mm Ø x 19 mm
BS 50E	0.0026	(0.0001)	.	(0.0001)	<0.0001	0.0024	(0.002)	0.044	.	44 mm Ø x 19 mm low supply
SRM 1768	.	.	.	.	.	.	.	.	.	31 mm Ø x 19 mm
ECRM 098-1D	.	.	.	.	.	.	.	.	.	38 mm Ø x 30 mm
JSS 1000-1	(<0.0002)	(0.00002)	.	(<0.00005)	.	0.00049	(<0.0001)	(<0.00003)	0.00004	32 mm Ø x 25 mm
ECRM 097-1D	0.0051	0.0003	.	.	.	(<0.0025)	.	(<0.001)	.	38 mm Ø x 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 Set of 9 samples, each 34 - 50 mm Ø x 7 mm discs

Grade	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	As	Co	N	Sn	V
Pure Iron	BS 50D	0.0020	0.0008	0.0014	0.00024	0.0018	0.0004	0.0012	0.0003	(0.0001)	(0.004)	.	0.0026	0.0024	<0.0001	0.0004
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
1011	BS 1011	<no longer available>														
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
1045	BS 56G	0.457	0.75	0.016	0.024	0.34	0.22	0.056	0.058	0.012	0.002	(0.005)	0.009	0.0090	0.029	0.013
1095	BS 64C	0.92	0.22	0.015	0.0024	0.22	0.016	0.038	0.26	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 EPMA SETS

available in sets only, as grouped 1011-1015: 3x10x15mm others: 4x10x15mm

Number	C	Number	Cr	Number	Ni
NMIJ 1011-b	0.088	NMIJ 1001-a	5.00	NMIJ 1006-a	5.04
NMIJ 1012-b	0.187	NMIJ 1002-a	14.96	NMIJ 1007-a	10.05
NMIJ 1013-b	0.280	NMIJ 1003-a	19.87	NMIJ 1008-a	20.02
NMIJ 1014-b	0.455	NMIJ 1004-a	29.84	NMIJ 1009-a	39.92
NMIJ 1015-b	0.673	NMIJ 1005-a	39.69	NMIJ 1010-a	60.07

CARBON STEEL

CONTINUED ON THE NEXT PAGE

= Class, where 1 = CRM and 2 = RM

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	B	Ca	Co	Mo
1	IRSID 1660	1.20	0.280	0.014	0.010	0.173	0.059	0.072	(0.026)	(0.009)	.	.	.	.	.	.
1	ECRM 090-1D	1.05	0.226	0.013	0.0095	0.281	.	0.053	0.121	.	.	.	.	.	.	0.009
1	NCS HS11703-5	1.03	1.63	0.086	0.030	0.176	0.122	0.324	0.063	0.174	.	.	.	.	.	.
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	0.66	0.023	0.031	0.057	(0.06)	(0.02)	(0.03)	0.096	.	.	.	.	(0.007)	(0.004)
2	BS 64C	0.92	0.22	0.015	0.0024	0.22	0.016	0.038	0.26	(0.005)	.	.	.	.	0.004	0.008
1	ECRM 056-2D	0.8181	0.5073	0.0103	0.0093	0.2006	0.129	0.0218	0.0146	.	0.00024	.	.	.	.	.
1	SRM 1224	0.75	0.41	0.009	0.039	0.173	0.072	0.054	0.071	0.060	.	.	.	.	.	0.013
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	.	0.13	0.18	.	.	.	.	.	0.011	.
2	BS 56E	0.48	0.72	0.010	0.025	0.24	0.015	0.015	0.021	0.062	.	0.0035	.	<0.0005	0.005	0.005
1	IRSID 1636	0.47	0.78	0.029	0.037	0.40	0.135	0.092	(0.060)	(0.007)	.	.	.	.	.	.
1	SS 459/2	0.467	0.909	0.0482	0.0481	0.640	.	.	0.015	(0.013)	.	0.0110	.	0.0890	.	.
2	BS 2972	0.462	0.70	0.011	0.016	0.204	0.270	0.129	0.119	(0.002)	.	0.008	.	.	.	0.021
1	IRSID 1657	0.445	0.724	0.028	(0.013)	0.274	.	0.048	(0.022)	0.004	.	0.0051	.	.	.	(0.008)
1	IARM 210C	0.443	0.87	0.033	0.025	0.219	0.36	0.097	0.161	0.005	.	0.008	0.0003	.	0.008	0.017
1	IRSID 1648	0.432	1.41	0.031	(0.070)	0.242	0.408	0.165	0.170	(0.004)	.	(0.038)	.	.	.	(0.028)
1	IRSID 1642	0.418	0.929	0.031	(0.031)	0.388	0.097	0.068	(0.035)	(0.020)	.	(0.042)	.	.	.	(0.009)
1	IRSID 1647	0.418	0.701	0.019	(0.027)	0.299	(0.104)	0.093	0.490	(0.060)	(0.0555)	.	.	.	.	.
1	IRSID 1646	0.414	0.701	0.020	0.027	0.293	0.104	0.093	0.493	0.056	.	.	.	.	.	.
1	SS 434/1	0.41	1.49	0.050	0.027	0.31	.	0.044	0.055	.	.	.	.	.	.	.
1	NCS HS11749	0.41	0.575	0.018	0.015	0.274	0.135	0.022	0.009	.	.	0.018	.	.	0.012	.
1	IRSID 1652	0.406	0.931	(0.017)	0.040	0.386	0.345	0.190	0.184	.	(0.0013)	0.038	.	.	.	(0.042)
1	IRSID 1637	0.401	0.940	0.030	0.030	0.378	0.097	0.068	(0.033)	0.022	.	0.042	.	.	.	(0.006)
1	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	IARM 210B	0.40	0.67	0.011	0.005	0.20	0.020	0.028	0.058	0.029	.	0.0025	(0.0002)	.	0.003	0.016
1	IRSID 1644	0.394	0.594	0.021	0.031	0.287	0.265	0.158	0.138	(0.017)	.	.	.	.	.	.
1	ECRM 084-1D	0.391	0.860	.	0.029	0.265	0.267	0.154	.	.	.	.	.	.	.	0.033
1	IRSID 1645	0.388	0.610	0.021	0.030	0.286	0.261	0.157	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
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	B	Ca	Co	Mo
1	SS 460/2	0.383	0.616	0.0374	0.0099	0.126	.	.	.	0.024	(0.019)	.	0.0027	.	0.0106	.
1	IRSID 1655	0.355	1.018	(0.018)	(0.060)	0.443	0.415	0.188	0.157	(0.004)	.	(0.036)	.	.	.	(0.043)
1	IRSID 1663	0.353	0.967	0.0090	0.034	0.235	0.180	0.148	0.206	0.037	.	0.028	.	.	.	0.042
2	BS 4931	0.352	0.80	0.011	0.016	0.27	0.217	0.070	0.093	(0.001)	.	0.005	.	.	0.006	0.024
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	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	0.24	.	.	.	.	.	.	.
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
2	BS 57F	0.196	0.554	0.009	0.027	0.202	0.197	0.070	0.120	(0.002)	.	(0.006)	.	(0.0003)	0.007	0.018
2	BS 2971	0.187	1.01	0.015	0.024	0.237	0.065	0.111	0.152	0.022	.	0.003	.	.	.	0.040
1	IARM 28i *	0.18	0.76	0.019	0.024	0.244	0.167	0.049	0.068	(0.003)	.	0.004	(0.0002)	0.0016	0.006	0.012
1	BS 2931A	0.178	0.842	0.0046	0.0262	0.244	0.199	0.064	0.086	0.0011	.	0.005	0.0004	0.0014	0.0067	0.018
1	SS 456/2	0.112	0.220	0.0212	0.0221	0.297	.	.	0.0017	(0.0013)	.	.	0.0015	.	0.0504	.
1	SS 432/1	0.102	1.34	0.024	0.039	0.043	.	0.14	0.31	.	.	.	.	.	.	.
1	SS 601/2	0.102	1.30	0.034	0.024	0.263	(0.04)	(0.03)	(0.14)	0.033	.	.	.	.	(0.09)	(0.006)
1	SS 433/2	0.095	1.19	0.012	0.008	0.005	.	0.038	0.026	.	.	.	.	.	.	.
1	IRSID 1661	0.086	1.48	0.018	(0.006)	0.406	(0.013)	(0.029)	(0.021)	(0.028)	(0.025)	(0.003)	.	.	.	(0.006)
1	SRM 1228	0.072	0.365	0.004	0.018	0.007	0.012	0.018	0.016	0.061	.	.	.	.	.	0.009
1	ECRM 057-2D	0.0507	0.246	0.0120	0.0127	.	0.0146	0.0096	0.0114	0.059	.	.	.	.	.	.
2	BS XCCS	0.042	0.32	0.003	0.014	0.010	0.018	0.017	0.014	0.069	.	0.002	.	.	0.003	0.005
1	SS 431/2	0.026	0.90	0.12	0.006	0.015	.	0.040	0.050	.	.	.	.	.	.	.
1	SS 111	0.0258	0.155	0.0033	0.0054	0.0253	0.0171	0.0387	0.0197	0.0348	.	0.0021	.	.	0.0144	0.0008
1	SS 432/2	0.008	0.70	0.017	0.036	0.08	.	0.019	0.016	.	.	.	.	.	.	.
1	BS LC-6	0.0020	0.469	0.0007	0.0009	0.050	0.0003	0.0057	0.0023	0.0021	.	(0.0020)	(0.0004)	(0.0001)	0.0021	(0.0006)
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	B	Ca	Co	Mo

CARBON STEEL CONTINUED FROM THE PREVIOUS PAGE

Number	N	Nb	O	Pb	Sb	Sn	Ti	V	W	Zn	Zr	Units
IRSID 1660	.	.	.	.	.	.	.	.	.	.	.	37 mm Ø x 30 mm
ECRM 090-1D	0.0146	0.00043	.	0.00239	0.00090	.	.	0.204	.	0.00209	.	38 mm Ø x 30 mm
NCS HS11703-5	.	.	.	.	.	.	0.156	0.031	.	.	.	45 mm Ø x 30 mm
SRM 1227	.	.	.	.	.	.	.	0.002	.	.	.	32 mm Ø x 19 mm
SS 602/2	.	.	.	.	.	.	.	(0.001)	.	.	(<0.005)	44 mm Ø x 19 mm
BS 64C	0.0084	.	.	.	.	0.001	0.002	0.005	.	.	.	44 mm Ø x 19 mm
ECRM 056-2D	.	.	.	.	.	.	.	.	.	.	.	44 mm Ø x 30 or 25 mm
SRM 1224	.	.	.	.	.	.	.	0.002	.	.	.	32 mm Ø x 19 mm
SS 435/1	.	0.039	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
SS 435/2	.	0.13	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
BS 56E	0.0056	.	.	.	.	0.0006	.	<0.002	.	.	.	44 mm Ø x 19 mm
IRSID 1636	.	.	.	.	.	.	.	.	.	.	.	44 mm Ø x 30 mm
SS 459/2	.	0.0102	.	0.0044	0.0121	.	.	0.0585	.	.	(0.074)	38 mm Ø x 19 mm
BS 2972	0.0088	.	.	.	.	(0.026)	(0.002)	0.024	.	.	.	44 mm Ø x 19 mm
IRSID 1657	.	.	.	.	.	.	.	(0.001)	.	.	.	42 mm Ø x 30 mm
IARM 210C	0.0090	0.025	0.009	0.002	(0.003)	0.019	0.001	0.005	<0.005	.	.	31 mm Ø x 2 or 18 mm
IRSID 1648	.	.	.	.	.	0.033	.	.	.	.	.	40 mm Ø x 28 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
SS 434/1	.	0.078	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
NCS HS11749	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 30 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
IARM 210B	0.0059	(0.001)	0.0012	<0.002	.	0.0013	0.002	0.0014	(0.003)	.	.	31 mm Ø x 2 or 18 mm
IRSID 1644	.	.	.	.	.	.	.	.	.	.	.	45 mm Ø x 28 mm
ECRM 084-1D	.	.	.	.	.	0.023	.	.	.	.	.	38 mm Ø x 25 mm
IRSID 1645	.	.	.	.	.	.	.	.	.	.	.	45 mm Ø x 30 mm
IRSID 1649	.	.	.	.	.	0.028	.	.	.	.	.	40 mm Ø x 28 mm
Number	N	Nb	O	Pb	Sb	Sn	Ti	V	W	Zn	Zr	Units
SS 460/2	.	0.068	.	0.0005	(0.0006)	.	.	0.0322	.	.	(<0.0005)	38 mm Ø x 19 mm
IRSID 1655	.	.	.	.	.	0.046	.	.	.	.	.	40 mm Ø x 34 mm
IRSID 1663	.	.	.	.	.	0.0143	0.051	.	.	.	.	44 mm Ø x 30 mm
BS 4931	0.0080	.	0.0034	.	.	0.009	.	0.058	.	.	.	37 mm Ø x 19 mm
IRSID 1653	.	.	.	.	.	0.066	.	.	.	.	.	40 mm Ø x 34 mm
IRSID 1654	.	.	.	.	.	0.030	.	.	.	.	.	40 mm Ø x 34 mm
SS 434/2	0.010	0.038	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 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
BS 57F	0.0077	.	(0.006)	.	.	0.008	.	0.063	.	.	.	44 mm Ø x 19 mm
BS 2971	0.0084	.	.	.	.	(0.005)	.	(0.002)	.	.	.	44 mm Ø x 19 mm
IARM 28i *	0.0054	(0.001)	0.004	(0.001)	(0.001)	0.0113	0.0014	0.002	* Provisional Analysis	.	.	31 mm Ø x 2 or 18 mm
BS 2931A	0.0099	(0.0004)	0.0050	0.0008	0.0021	0.0094	0.0006	0.0006	(0.0013)	.	(0.0003)	43 mm Ø x 19 mm
IARM 213A	0.0082	0.002	0.011	0.0025	.	0.018	0.001	0.002	(0.007)	.	.	31 mm Ø x 2 or 18 mm
SS 456/2	.	0.0057	.	0.0189	0.0172	.	.	0.0221	.	.	(0.014)	38 mm Ø x 19 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
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
SRM 1228	.	.	.	.	.	.	.	<0.001	.	.	.	32 mm Ø x 19 mm
ECRM 057-2D	0.0023	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 30 or 25 mm
BS XCCS	0.0047	.	0.0027	.	.	0.006	.	<0.002	.	.	.	36 mm Ø x 19 mm
SS 431/2	0.005	0.004	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
SS 111	0.0034	(0.0005)	.	.	.	0.0015	0.0004	0.0009	.	.	.	44 mm Ø x 50 mm
SS 432/2	0.007	0.018	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
BS LC-6	0.0003	(<0.0010)	0.0007	(<0.0020)	(<0.0001)	(<0.0020)	0.0006	(<0.0010)	(<0.0050)	(0.00004)	(0.0004)	39 mm Ø x 19 mm
Number	N	Nb	O	Pb	Sb	Sn	Ti	V	W	Zn	Zr	Units

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	12X 12748	0.145	.	0.135	0.494	0.053	0.052	0.122	0.543	0.454	0.755	0.009	.	0.280	0.300	0.074	(0.003)
2	12X 12750	0.12	.	0.202	0.54	0.022	0.058	0.57	0.11	0.70	0.70	0.27	.	0.61	0.11	0.22	0.11
1	SRM 1262b	0.096	0.012	0.160	1.05	0.044	0.037	0.40	0.51	0.59	0.30	0.081	.	0.30	0.070	0.016	0.100
1	12X 15260	0.087	.	0.446	2.20	0.031	0.094	0.456	0.231	0.573	3.69	0.378	.	0.109	0.130	0.0130	.
1	12X 12749	0.074	.	0.138	1.531	0.036	0.080	0.549	0.269	0.609	0.549	0.026	.	0.484	0.224	0.0240	0.0361
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 15266	0.063	.	0.454	1.45	0.079	0.0093	0.667	0.253	1.50	2.78	0.453	.	0.235	0.365	0.0160	.
1	12X 353	0.056	0.156	0.194	0.817	0.0205	0.025	0.142	0.302	0.190	0.491	0.0070	.	0.057	0.113	0.075	0.057
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 350	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	SS 453/1	0.052	.	0.160	1.38	0.044	0.026	0.34	0.099	0.11	0.26	.	.	.	0.081	0.022	0.073
2	BS 13B	0.050	0.027	0.211	0.316	0.018	0.005	0.015	0.023	0.43	0.081	0.016	.	0.19	0.050	0.061	0.004
1	12X 12746	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	SS 458/2	.	0.089	0.198	0.479	0.0281	0.0314	0.504	.	.	.	0.055	0.053	0.198	.	.	.
2	12X 355	.	0.08	0.20	0.62	0.028	0.024	0.48	.	.	.	<0.01	.	0.05	.	.	.
1	SS 458/1	.	0.072	0.247	0.49	0.032	0.033	0.54	.	.	.	0.023	.	0.21	.	.	.
1	SS 457/2	.	0.050	0.307	0.327	0.0098	0.0448	0.105	.	.	.	0.088	0.084	0.0217	.	.	.
2	12X 354	.	0.05	0.27	0.86	0.066	0.015	0.19	.	.	.	0.01	.	0.03	.	.	.

Number	Ag*	B	Bi	Ce*	Mg*	Nd*	N	Nb	Pb	Se	Ta	V	W	Zn	Zr	Units
12X 12748	0.0464	0.056	.	.	42 mm Ø x 15 mm
12X 12750	40 mm Ø x 15 mm
SRM 1262b	11	0.0025	(0.002)	19	6	6	(0.0040)	0.30	0.0004	(0.0012)	0.20	0.041	0.20	(0.0005)	0.22	34 mm Ø x 19 mm
12X 15260	0.243	.	.	0.026	0.351	.	.	.	40 mm Ø x ~15 mm
12X 12749	0.0419	0.035	.	.	42 mm Ø x 15 mm
SS 454/1	(0.0001)	.	.	.	.	0.15	.	.	38 mm Ø x 19 mm
IMZ 120	0.0115	.	0.077	.	.	.	.	.	.	.	40 mm Ø x 15 mm
12X 15266	1.481	.	0.20	0.089	.	.	.	.	.	40 mm Ø x ~15 mm
12X 353	.	.	0.021	.	.	0.016	0.096	(0.018)	0.017	.	0.0481	0.108	0.048	.	.	42 mm Ø x 15 mm
IRSID 1656	(0.002)	.	.	.	.	40 mm Ø x 35 mm
12X 350	0.0286	0.275	.	.	.	40 mm Ø x 15 mm
SS 453/1	(0.0001)	.	.	0.30	.	.	.	.	38 mm Ø x 19 mm
BS 13B	.	(0.00002)	.	.	.	0.0099	0.003	0.0009	0.023	0.005	0.010	0.04	0.0003	(0.01)	.	32 mm Ø x 17 mm
12X 12746	0.0218	.	.	.	.	0.0160	0.101	.	.	.	40 mm Ø x 15 mm
SS 458/2	.	0.0069	.	.	.	.	0.0510	0.0140	.	.	0.105	.	.	.	(0.064)	38 mm Ø x 19 mm
12X 355	.	0.001	.	.	.	.	0.02	.	.	.	0.11	.	.	.	<0.01	40 mm Ø x 15 mm
SS 458/1	0.052	0.0078	.	.	0.108	.	.	0.050	0.050	38 mm Ø x 19 mm
SS 457/2	.	0.0046	.	.	.	.	0.0174	0.0098	.	.	0.153	.	.	0.025	0.025	38 mm Ø x 19 mm
12X 354	.	(0.0002)	.	.	.	.	0.07	.	.	.	0.02	.	.	0.03	0.03	40 mm Ø x 15 mm

BISMUTH AND SELENIUM STEEL

= Class, where 1 = CRM and 2 = RM 12X: 40-42 mm Ø x 15-20 mm BS 11-14: 32 mm Ø x 17 mm other BS: 38 mm Ø x 12 mm CKD: 44 mm Ø x 13 or 25 mm IARM: 31 mm Ø x 2 or 18 mm

#	Number	Bi	Se	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	Co	Mo	N
1	IARM 233A	0.14	.	0.082	0.80	0.072	0.30	0.010	0.096	0.038	0.045	0.002	.	0.004	0.0046	0.011	0.0057
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 8620B	0.105	.	0.202	0.84	0.014	0.029	0.23	0.135	0.44	0.59	0.022	.	0.005	0.011	0.17	0.0100
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 8620A	0.073	.	0.184	0.80	0.008	0.079	0.21	0.15	0.44	0.48	0.016	.	0.007	0.010	0.16	0.0107
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
1	12X 353	0.021	0.017	0.194	0.817	0.0205	0.025	0.142	0.302	0.190	0.491	0.0070	.	0.056	0.057	0.113	0.016
1	CKD 187B	0.003	(0.004)	0.119	0.529	0.035	0.014	0.577	0.036	0.085	3.51	0.027	0.025	(0.007)	0.071	0.565	0.0122
1	CKD 187A *	0.003	(0.004)	0.119	0.525	0.035	0.018	0.567	0.036	0.085	3.51	0.019	0.017	(0.007)	0.071	0.565	0.0122
2	BS 4142SE	.	0.042	0.428	0.85	0.015	0.031	0.17	0.13	0.081	0.84	0.017	.	0.016	0.012	0.164	0.0087
2	BS 13B	(<0.0001)	0.023	0.211	0.316	0.018	0.005	0.015	0.023	0.43	0.081	0.016	.	0.050	0.19	0.050	0.0099

Number	B	Ca	Nb	O	Pb	Sb	Sn	Ta	Ti	V	W	Zn	Zr
IARM 233A	0.001	0.001	(0.001)	0.013	0.003	0.002	0.011	.	0.001	0.002	0.002	.	.
BS 4140A	.	(0.0003)	.	(0.0025)	(0.001)	.	0.011	.	(0.003)	0.004	.	.	.
BS 8620B	.	0.0009	.	0.003	(0.0002)	.	0.009	.	(0.002)	0.003	.	.	.
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 8620A	.	0.0003	.	(0.004)	(0.001)	.	0.009	.	(0.002)	0.004	.	.	.
BS 4150MOD	.	0.0010	.	(0.003)	0.0010	.	0.013	.	(0.002)	0.008	.	.	.
12X 353	.	.	0.096	.	(0.018)	0.156	0.075	.	0.057	0.0481	0.108	0.048	.
CKD 187B	0.0006	.	0.028	.	0.003	0.022	0.013	0.017	0.099	0.558	0.67	.	0.013
CKD 187A *	0.0006	.	0.028	.	0.003	0.023	0.013	0.015	0.087	0.558	0.67	.	0.013 * 13 mm only
BS 4142SE	.	.	.	(0.002)	0.0020	.	0.015	.	(0.002)	0.003	.	.	.
BS 13B	(0.00002)	(<0.0001)	0.003	(0.02)	0.0009	0.027	0.061	0.005	0.004	0.010	0.04	0.0003	(0.01)

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	SRM 1254	0.0053	(0.03)	(0.28)	(0.03)	(0.008)	(2.9)	(0.07)	(0.04)	(0.02)	(0.33)	.	.	(0.008)	.	.
1	ECRM 194-1D	0.0026	0.1532	1.188	0.0097	0.00059	0.431	0.0751	0.3417	0.733	0.0837	.	.	0.2857	0.0115	0.0243
1	IRSID 1746	0.0021	0.236	0.838	0.0147	0.0280	0.221	0.234	0.607	0.533	0.0185	.	0.0167	0.174	0.0096	(0.0017)
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	ECRM 096-2D	0.0020	0.1050	1.320	0.0128	0.0016	0.263	0.0170	0.0253	0.0243	0.0460	.	.	0.0020	.	.
1	IRSID 1667	0.0019	0.679	0.668	0.0136	0.0018	0.240	0.0115	0.0189	0.235	0.0217	.	0.0031	(0.0014)	0.0048	0.0012
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 2931A	0.0014	0.178	0.842	0.0046	0.0262	0.244	0.199	0.064	0.086	0.0011	.	0.0067	0.018	0.0099	0.0006
2	BS 3941	0.0013	0.41	0.80	0.016	0.023	0.25	0.053	0.019	0.068	0.002	.	0.004	0.006	0.0070	0.003
2	BS 3942	0.0012	0.47	0.72	0.023	0.032	0.26	0.281	0.14	0.165	0.004	.	0.010	0.037	(0.0088)	0.0019
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	IARM 209C	0.001	0.31	0.70	0.008	0.024	0.233	0.21	0.071	0.117	0.003	.	0.007	0.016	0.0123	0.032
2	BS 8620B	0.0009	0.202	0.84	0.014	0.029	0.23	0.135	0.44	0.59	0.022	.	0.011	0.17	0.0100	0.003
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
1	BS 1981	0.0005	0.142	0.490	0.008	0.016	0.666	0.152	0.129	1.20	0.022	.	0.009	0.470	0.0085	0.004
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
2	BS 8620A	0.0003	0.184	0.80	0.008	0.079	0.21	0.15	0.44	0.48	0.016	.	0.010	0.16	0.0107	0.004
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
1	NCS HS20746	0.0003	0.058	1.5	0.022	0.01	0.32	0.24	.	.	0.045	0.041	.	0.249	.	0.028
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
SRM 1254	.	.	.	.	.	.	.	(0.003)	.	.	.	32 mm Ø x 19 mm
ECRM 194-1D	0.0042	0.0020	.	.	.	.	.	.	.	.	.	38 mm x 35 mm x 40 mm
IRSID 1746	(0.0274)	(0.0004)	.	(0.0003)	.	(0.0022)	(0.0034)	0.0195	0.0016	.	(<0.0010)	50 mm Ø x 30 mm
HRT FE2009-N	.	.	.	.	.	.	.	.	.	.	Zn: 0.004	40 mm Ø x 40 mm
ECRM 096-2D	.	.	.	0.0252	.	.	.	.	.	.	.	38 mm Ø x 30 mm
IRSID 1667	0.0017	(0.0002)	.	0.0002	.	.	0.0002	0.0008	0.0014	.	.	37 mm Ø x 30 mm
IRSID 1665	0.0067	(0.00032)	.	.	.	(0.0014)	(0.0008)	0.0031	(0.0008)	.	.	37 mm Ø x 30 mm
BS 2931A	0.005	0.0004	.	(0.0004)	0.0050	0.0008	0.0021	0.0094	0.0006	(0.0013)	(0.0003)	43 mm Ø x 19 mm
BS 3941	0.003	.	.	.	(0.006)	0.0010	.	(0.002)	(0.002)	.	.	41 mm Ø x 19 mm
BS 3942	0.009	.	.	.	(0.0041)	0.0003	.	0.012	0.003	.	.	42 mm Ø x 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 or 18 mm
BS 4150MOD	0.005	.	0.070	.	(0.003)	0.0010	.	0.013	(0.002)	.	.	38 mm Ø x 12 mm
BS 4330V	.	.	.	.	0.0018	.	.	0.010	.	.	.	37 mm Ø x 19 mm
IARM 209C	0.007	0.0002	.	0.0018	0.004	0.001	0.003	0.017	0.0018	0.004	.	31 mm Ø x 2 or 18 mm
BS 8620B	0.005	.	0.105	.	0.003	(0.0002)	.	0.009	(0.002)	.	.	38 mm Ø x 12 mm
BS 4942	0.005	.	.	.	(0.0021)	.	.	0.014	.	.	.	38 mm Ø x 19 mm
BS 1981	0.0048	(0.0003)	.	(0.002)	(0.0020)	.	.	0.007	0.0028	(<0.01)	.	38 mm Ø x 19 mm available Mar 2010
BS 2952	0.004	.	.	.	(0.002)	.	0.003	0.006	0.003	.	.	44 mm Ø x 19 mm
BS PP20	0.0049	0.00011	.	0.0048	(0.0010)	.	0.0013	0.0069	0.0007	0.0058	.	38 mm Ø x 19 mm
BS 8620A	0.007	.	0.073	.	(0.004)	(0.001)	.	0.009	(0.002)	.	.	38 mm Ø x 19 mm
IMZ 111	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
NCS HS20746	.	.	.	0.031	.	.	.	.	.	.	.	35 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

RM C-Mo and Cr-Mo STEEL XRF SET

Part Number: BS MOLY-5 Set of 5 samples, each 37 - 40 mm Ø x 7 mm discs

Grade	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Co	N	Sn	V
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)	.	.
1.25Cr-.5Mo	F-11 BS 45A	0.133	0.46	0.016	0.022	0.69	0.17	0.15	1.16	0.52	0.032	0.009	0.0081	0.011	0.004
2.25Cr-1Mo	F-22 BS 46A	0.139	0.55	0.018	0.030	0.18	0.13	0.20	2.37	0.93	0.022	0.011	0.0140	0.008	0.013
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	0.0181	0.008	0.016
9Cr-1Mo	F-9 BS 48A	0.121	0.43	0.012	0.011	0.68	0.13	0.29	8.75	0.95	0.018	0.022	0.021	0.014	0.014

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
2	BS 48A	8.75	0.95	0.121	0.43	0.012	0.011	0.68	0.13	0.29	0.018		0.022	0.021	0.014	0.014
1	IARM 238A	8.23	0.94	0.110	0.40	0.007	0.010	0.31	0.17	0.256	0.03	0.012	0.026	0.047	0.013	0.22
1	BS 48	8.30	0.88	0.113	0.53	0.031	0.003	0.73	0.116	0.27	(0.004)		(0.02)		0.016	(0.014)
1	BS 9905	8.22	0.90	0.107	0.333	0.008	0.008	0.327	0.115	0.123	0.017	0.007	0.016	0.055	0.009	0.236
1	IARM 37B	4.82	0.470	0.119	0.431	0.011	0.016	0.235	0.137	0.11	0.025	0.006	0.017	0.0155	0.008	0.012
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
2	BS 47A	4.22	0.47	0.130	0.44	0.015	0.015	0.27	0.11	0.12	0.015		0.011	0.0181	0.008	0.016
1	SS 612/1	4.14	0.80	0.12	0.60		(0.02)	0.28	(0.06)	0.97						0.21
1	12X 15260	3.69	0.130	0.446	2.20	0.031	0.094	0.456	0.231	0.573	0.378	0.087	0.109		0.0130	0.351
1	CKD 187B	3.51	0.565	0.119	0.529	0.035	0.014	0.577	0.036	0.085	0.027	(0.007)	0.071	0.0122	0.013	0.558
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
1	12X 15266	2.78	0.365	0.454	1.45	0.079	0.0093	0.667	0.253	1.50	0.453	0.063	0.235		0.0160	0.089
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
2	IARM 170A	2.55	1.57	0.56	0.019	0.039	0.025	0.010	0.005	1.51	0.032	(0.005)	0.004	0.0003	0.002	0.006
2	BS 46A	2.37	0.93	0.139	0.55	0.018	0.030	0.18	0.13	0.20	0.022		0.011	0.0140	0.008	0.013
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	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	IARM 36B	2.18	0.95	0.14	0.49	0.010	0.038	0.21	0.13	0.18	0.030	0.009	0.012	0.0102	0.008	0.006
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	12X 15254	2.09	0.788	0.261	1.19	0.043	0.0476	0.753	0.130	0.886	1.136		0.470	0.006	0.047	0.296
2	IARM 36A	2.08	0.93	0.099	0.55	0.006	0.013	0.22	0.17	0.16	0.024	(0.005)	0.012	0.0105	0.009	0.008
1	SS 406/2	2.001	0.98	0.173	0.447	0.102	0.043	0.342	0.289	1.62	0.013	0.012	(0.006)	(0.009)		0.010
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 68D	1.77	0.35	0.388	0.602	0.018	0.0067	0.31	0.178	0.166	1.04	(0.004)	0.009	0.0044	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 129-3	1.702	0.206	0.3684	0.371	0.0110	0.0165	0.2087	0.0804	1.022	1.016	0.0049	0.0148	0.0046	0.0067	
1	IARM 305A *	1.61	0.41	0.40	0.62	0.005	0.001	0.38	0.098	0.143	1.09	0.005	0.034	0.0044	0.005	0.013
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 53E	1.45	0.10	1.08	0.37	0.007	0.012	0.24	0.11	0.26	0.003		0.011	0.0086	0.005	0.004
2	BS 58E	1.40	0.110	1.000	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	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	BS 1981	1.20	0.470	0.142	0.490	0.008	0.016	0.666	0.152	0.129	0.022	0.0048	0.009	0.0085	0.007	0.004
1	SS 614/1	1.18	0.60	0.41	1.30		(0.02)	0.39	(0.06)	3.05						0.27
2	BS 45A	1.16	0.52	0.133	0.46	0.016	0.022	0.69	0.17	0.15	0.032	0.007	0.009	0.0081	0.011	0.004
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	IARM 35H *	1.11	0.47	0.14	0.56	0.004	0.028	0.56	0.032	0.071	0.028	0.003	0.004	0.0076	0.002	0.004
1	IARM 30G *	1.06	0.18	0.41	0.82	0.018	0.026	0.27	0.041	0.025	0.026	0.0020	(0.003)	0.0052	(0.003)	(0.003)
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	JK 24D	1.048	0.578	0.1744		0.0151	0.0010									
1	IARM 299A *	1.03	0.99	0.47	0.70	0.008	0.002	0.22	0.10	0.57	0.09	0.005	(0.006)	0.003	0.005	0.12
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

Number	B	Ca	Nb	O	Pb	Sb	Ta	Ti	W	Zr	Units
BS 48A								0.002			38 mm Ø x 19 mm
IARM 238A	0.0004		0.086	(0.003)				0.003	<0.03	0.002	31 mm Ø x 2 or 18 mm
BS 48											38 mm Ø x 12-17 mm low supply
BS 9905	(0.0004)	(0.0001)	0.076	0.0021	(0.0002)	(0.002)		(0.002)	0.003	(0.001)	38 mm Ø x 19 mm
IARM 37B	0.0002	(0.0004)	0.005	0.0024	(0.0003)	(0.004)		0.0021	0.013	<0.005	31 mm Ø x 2 or 18 mm
BS 47B				(0.004)							38 mm Ø x 19 mm
BS 47A			0.002	(0.003)				0.003			38 mm Ø x 19 mm
SS 612/1											44 mm Ø x 19 mm
12X 15260			0.243				0.026				40 mm Ø x ~15 mm
CKD 187B	0.0006		0.028		0.003	0.022	0.017	0.099	0.67	0.013	44 mm Ø x 13 or 25 mm Als: 0.025
SRM 1772											34 mm Ø x 19 mm
SS 407/2											38 mm Ø x 19 mm
12X 15266			1.481				0.20				40 mm Ø x ~15 mm
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 170A	(0.0002)	(0.0001)	0.004	0.0003	(<0.01)			0.006	(0.018)	(0.003)	31 mm Ø x 2 or 18 mm
BS 46A			(0.002)	(0.0038)							38 mm Ø x 19 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 2 or 18 mm
SRM 1270											32 mm Ø x 19 mm
IMZ 169			(0.0045)		(0.001)			0.001			40 mm Ø x 40 mm
IARM 36B	(0.002)	0.0002	0.004	0.0018	(0.003)			0.003	(<0.01)		31 mm Ø x 2 or 18 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)			39 mm Ø x 19 mm
12X 15254			0.322					0.260	0.358		40 mm Ø x 15 mm
IARM 36A	(0.002)		0.004	(0.0027)	(<0.005)			0.003			31 mm Ø x 2 or 18 mm
SS 406/2					0.0002						38 mm Ø x 19 mm
BS PP20	0.00011	0.0003	0.0048	(0.0010)		0.0013		0.0007	0.0058		38

LEADED STEEL

= Class, where 1 = CRM and 2 = RM

#	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
2	BS 75F	0.202	0.165	1.05	0.009	0.116	0.004	0.030	0.04	0.08	(0.002)	.	.	0.018	.	.	.
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	0.078	1.06	0.078	0.31	(0.004)	0.016	0.019	0.055	(0.002)	(0.002)	(0.002)	0.010	0.005	0.003	(0.002)
2	BS 72B	0.174	0.497	0.87	0.029	0.029	0.26	0.21	0.17	0.98	0.020	(0.006)	0.012	0.19	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	.	.	.

Number	B	Ca	Nb	O	Sb	Ti	W	Zn	Grade	Units
BS 74C	.	.	(<0.005)	.	.	.	.	.	12L14	41 mm Ø x 12 mm
BS 75F	.	.	.	.	.	.	.	.	11L17	40 mm Ø x 12 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 or 18 mm
IARM 183C *	(0.001)	<0.0005	0.001	0.017	(0.002)	(0.001)	(0.002)	0.001	12L14	31 mm Ø x 2 or 18 mm
BS 72B	.	.	(0.001)	.	.	0.002	.	.	41L50	37 mm Ø x 12 mm
BS 73B	.	.	.	.	.	.	.	.	86L20	41 mm Ø x 12 mm
BS 70B	.	.	.	.	.	.	.	.	41L40	41 mm Ø x 12 mm

* provisional analysis

RM LEADED AND BISMUTH STEEL XRF SET

Part Number: BS PB-BI-7 Set of 7 samples, each 36 - 46 mm Ø x 7 mm discs

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	0.04	0.08	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	0.17	0.98	0.19	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

= Class, where 1 = CRM and 2 = RM 14X: 40 mm Ø x ~15-17 mm BS: 32 mm Ø x 17 mm SS 491: 50 mm Ø x 10 mm other SS 495: 48x42x12mm

#	Number	Mn	C	P	S	Si	Cu	Ni	Cr	Al	Mo	N	Nb	Sn	V	Other
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)	.
1	14X MN1	19.50	0.529	0.0115	0.0111	0.315	0.0603	1.42	1.74	0.008	0.751	0.027	0.319	0.0085	0.0150	.
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	SS 491/2	16.73	0.994	0.0494	0.0112	1.101	.	0.0745	1.482	0.110	0.608	0.0215	.	.	0.0839	.
1	14X MN 4	13.55	1.088	0.025	0.0097	0.915	0.293	1.102	2.05	0.12	0.789	0.030	0.087	0.026	0.028	Ta: 0.024 Ti: 0.370
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
2	14X 15195	12.06	1.64	0.062	0.018	1.45	0.12	0.09	0.11	0.08	0.30	.	.	0.05	0.33	.
2	BS 18A	11.30	1.13	0.019	0.043	0.64	0.029	0.36	0.22	0.019	0.049	0.042	0.05	0.007	0.32	Co: 0.009
2	BS 18 *	11.20	1.14	0.032	0.026	0.63	0.035	0.29	0.20	(0.02)	0.018	.	.	(0.006)	0.33	Mg: 0.039
1	14X MN3	11.14	1.33	0.053	0.0263	1.01	0.357	2.11	1.17	(0.026)	0.459	0.030	0.416	0.024	0.048	.
2	14X 15196	10.16	1.08	0.037	0.012	1.64	0.22	0.25	0.26	0.13	0.22	.	.	0.10	0.21	.
1	14X MN2	9.57	0.788	0.0228	0.0198	1.27	(0.16)	0.501	0.381	(0.008)	1.56	0.0148	0.346	0.0683	0.104	.
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
2	BS 19	8.52	1.48	0.030	0.062	1.44	0.52	1.48	3.93	(0.012)	2.08	.	.	(0.027)	(0.045)	.
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 MN5	7.62	1.463	0.025	0.030	1.48	0.56	1.60	3.75	(0.03)	1.98	0.0274	0.100	0.0111	0.0255	.

* Low Supply

CRM MULTI-ELEMENT LOW ALLOY STEEL

analysis listed in mass %

31-34 mm Ø x 19 mm

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	As	Co	Mo	Nb	Pb	Sn	Ta	Ti	V	W	Zr
SRM 1264a	0.87	0.25	0.010	0.025	0.067	0.25	0.14	0.06	(0.008)	0.010	0.15	0.49	0.15	0.0022	(0.008)	0.11	0.24	0.10	0.10	0.069
SRM 1262b	0.160	1.05	0.044	0.037	0.40	0.51	0.59	0.30	0.081	0.05	0.30	0.070	0.30	0.024	0.016	0.20	0.100	0.041	0.20	0.22

continued analysis listed in mass %

analysis listed in mg/kg

Number	B	Bi	Fe.diff	Ge	Sb	Te	Zn	Ag	Au	Ca	Ce	H	Hf	La	Mg	N	Nd	O	Pd	Se	Sr
SRM 1264a	(0.011)	(0.0009)	[96.7]	(0.003)	0.034	0.00018	(0.001)	(0.2)	1	0.4	2	(<5)	(13)	0.7	1.5	(32)	0.7	(10)	(0.3)	(2.1)	(5)
SRM 1262b	0.0025	(0.002)	[95.3]	(0.002)	0.012	(0.001)	(0.0005)	11	(0.5)	(1)	19	(<5)	(3)	(4)	6	(40)	6	(11)	(1.2)	(12)	(<5)

RESULFURIZED STEEL

= Class, where 1 = CRM and 2 = RM

#	Number	S	C	Mn	P	Si	Cu	Ni	Cr	Al	Co	Mo	N	Sn	Ti	V
SUITABLE FOR OES and XRF																
1	SRM C1221	0.112	0.020	0.102	0.090	0.876	0.041	0.067	0.049	0.111	.	0.038	.	0.070	.	.
1	12X 15259	0.099	0.740	0.314	0.0401	1.90	0.161	4.01	0.554	0.192	0.123	0.434	0.0253	0.070	.	0.165
1	BS 3993	0.094	0.152	1.16	0.012	0.260	0.111	0.045	0.072	0.002	0.006	0.010	0.0071	0.006	(0.0008)	0.002
2	BS 52D	0.088	0.436	0.97	0.068	0.18	0.060	0.18	0.16	0.028	0.012	0.07	0.0025	.	(0.004)	0.002
2	BS 4150MOD	0.079	0.47	0.90	0.024	0.21	0.19	0.15	1.01	0.012	0.012	0.21	0.0087	0.013	(0.002)	0.008
2	BS 42A	0.078	0.52	1.08	0.012	0.258	0.285	0.147	0.80	0.025	(0.007)	0.195	0.008	.	.	0.004
2	BS 42	0.073	0.516	1.24	0.021	0.24	0.25	0.18	0.67	0.020	0.012	0.19	0.0080	.	(0.003)	0.003
1	12X 15217	0.073	0.176	0.652	0.058	1.390	0.231	0.864	1.24	(0.021)	0.248	0.358	0.078	0.0737	.	0.662
1	SS 433/1	0.069	0.195	0.60	0.074	0.18	.	0.064	0.26	.	.	.	.	.	.	.
1	KUT A14	0.052	0.12	0.75	0.041	0.73	0.20	1.32	0.59	(0.01)	0.070	0.25	.	0.10	0.12	0.67
1	KUT B16	0.051	0.16	2.05	0.068	1.95	0.09	3.74	0.26	(0.037)	.	0.11	.	.	0.075	0.53
1	KUT B12	0.048	0.43	0.76	0.028	0.34	0.41	1.62	1.32	0.007	0.011	0.21	.	0.032	0.011	0.026
1	KUT B4	0.043	0.55	1.07	0.047	1.72	0.49	.	.	.	.	.	.	.	.	.
BEST FOR XRF USERS because of MnS inclusions																
1	14X MSFM 1	0.382	0.062	1.07	0.078	0.490	0.0101	0.036	0.319	(0.021)	0.0578	0.196	0.005	0.0253	.	0.0116
1	IMZ 123	0.38	0.25	1.57	0.030	0.23	0.093	0.057	0.16	0.032	.	.	0.0171	(0.007)	.	.
1	14X MSFM 1J	0.364	0.0098	1.108	0.0778	0.351	0.0056	0.0205	0.17	0.0024	0.0019	0.249	0.0060	0.0041	.	0.0026
1	ECRM 085-1D	0.336	0.067	0.977	0.062	0.008	0.291	.	.	.	0.019	.	.	.	.	0.0021
2	BS 66K	0.322	0.051	0.86	0.062	(0.004)	0.013	0.012	0.006	0.002	0.005	0.003	(0.0074)	.	<0.002	0.001
1	BS 66L	0.315	0.065	0.844	0.061	0.002	0.007	0.015	0.026	0.0008	0.0035	0.0012	0.0031	(0.0010)	(0.0010)	0.0006
1	IARM 233A	0.30	0.082	0.80	0.072	0.010	0.096	0.038	0.045	0.002	0.0046	0.011	0.0057	0.011	0.001	0.002
1	IARM 199B	0.29	0.45	1.45	0.009	0.18	0.089	0.035	0.048	0.003	0.007	0.008	0.0059	0.005	0.002	0.003
1	IMZ 124	0.28	0.10	0.60	0.082	(0.019)	0.060	0.046	0.11	0.005	.	.	0.0059	0.009	.	.
1	IARM 206A	0.26	0.068	0.90	0.069	(0.019)	0.098	0.044	0.041	0.003	0.009	0.012	0.0119	0.005	0.0015	0.002
1	14X MSFM 2	0.256	0.210	1.84	0.049	0.477	0.0225	0.0667	0.568	(0.016)	0.0137	0.287	0.0049	0.0095	.	0.0359
1	14X MSFM 4	0.224	0.226	1.141	0.0386	0.469	0.429	6.22	1.69	(0.007)	0.0253	0.974	0.0220	0.0141	.	0.0151
1	IMZ 122	0.21	0.27	1.33	0.073	0.43	0.25	0.25	0.19	(0.027)	.	.	0.0110	0.12	.	.
1	14X MSFM 2H	0.193	0.269	1.83	0.060	0.505	0.0085	0.040	0.060	(0.002)	0.0033	0.291	(0.003)	(0.003)	(0.002)	(0.0008)
1	ECRM 058-2D	0.1712	0.424	1.186	0.0098	0.1080	0.261	0.199	0.1211	.	.	0.0589	0.0107	.	.	.
1	IARM 29C	0.13	0.18	1.20	0.011	0.28	0.15	0.075	0.076	0.003	(0.01)	0.016	0.010	0.008	0.0015	0.003
1	IARM 29D	0.1153	0.17	1.07	0.018	0.050	0.085	0.042	0.076	0.0033	(0.023)	0.016	0.0057	0.0072	0.0014	0.0018
2	BS 65C	0.115	0.150	1.19	0.007	0.24	0.24	0.063	0.066	(0.002)	(0.007)	0.012	0.0084	.	.	0.002
2	BS 66B	0.110	0.418	1.57	0.018	0.02	0.031	0.033	0.094	0.002	0.005	0.019	(0.006)	.	<0.002	0.002
2	CT X56617	0.095	0.72	2.11	0.012	0.33	0.040	0.061	0.96	.	.	1.31	.	.	.	0.034
1	IMZ 121	0.097	0.39	1.18	0.057	(0.056)	0.032	0.029	0.036	0.016	.	.	0.0125	0.059	.	.
2	14X MSFM 3	0.087	0.55	2.10	0.060	0.52	.	.	.	.	.	0.27	.	.	.	.
1	KUT B2/2	0.064	0.065	1.22	0.087	(0.38)	0.32	1.49	.	0.10	.	1.06	.	.	(0.25)	0.87

Number	As	B	Bi	Ca	Nb	O	Pb	Sb	W	Zn	Zr	Units
SUITABLE FOR OES and XRF												
SRM C1221	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 16 mm
12X 15259	.	.	.	.	0.377	.	.	.	1.04	.	.	40 mm Ø x 15 mm
BS 3993	0.004	.	.	(0.0002)	.	(0.0030)	.	.	.	.	.	38 mm Ø x 19 mm
BS 52D	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm
BS 4150MOD	0.005	.	0.070	0.0010	.	(0.003)	0.0010	.	.	.	.	38 mm Ø x 12 mm
BS 42A	.	.	.	.	.	.	.	.	.	.	.	37 mm Ø x 19 mm
BS 42	.	.	.	.	.	.	.	.	.	.	.	44 mm Ø x 19 mm
12X 15217	.	.	.	.	0.131	.	.	.	0.121	.	.	40 mm Ø x 15 mm
SS 433/1	.	.	.	.	0.020	.	.	.	.	.	.	38 mm Ø x 19 mm
KUT A14	0.13	0.004	.	.	0.044	.	.	0.047	.	.	.	30-35 mm Ø x 39 mm
KUT B16	.	.	.	.	0.11	.	.	.	.	.	.	30-35 mm Ø x 39 mm
KUT B12	0.011	0.0035	.	.	0.022	.	.	.	.	.	(0.002)	30-35 mm Ø x 39 mm
KUT B4	.	.	.	.	.	.	.	.	.	.	0.09	30-35 mm Ø x 39 mm
BEST FOR XRF USERS because of MnS inclusions												
14X MSFM 1	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x ~15 mm
IMZ 123	0.033	.	.	.	.	.	0.030	0.030	.	.	.	40 mm Ø x 40 mm
14X MSFM 1J	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm last
ECRM 085-1D	.	.	.	.	.	.	0.0010	0.0073	.	0.0025	.	38 mm Ø x 30 or 25 mm
BS 66K	.	.	.	.	.	.	.	.	.	.	.	41 mm Ø x 19 mm
BS 66L	0.0020	(<0.0003)	.	(<0.0010)	(0.0012)	.	0.0007	0.0021	(<0.0010)	.	.	44 mm Ø x 19 mm
IARM 233A	0.004	0.001	0.14	0.001	(0.001)	0.013	0.003	0.002	0.002	.	.	31 mm Ø x 2 or 18 mm
IARM 199B	0.005	0.002	.	.	(0.002)	(0.0048)	(<0.01)	.	0.002	.	.	31 mm Ø x 2 or 18 mm
IMZ 124	0.004	.	.	.	.	.	(0.002)	0.002	.	.	.	40 mm Ø x 40 mm
IARM 206A	0.008	0.0006	.	.	(0.002)	(0.019)	.	.	.	.	.	31 mm Ø x 2 or 18 mm
14X MSFM 2	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x ~15 mm
14X MSFM 4	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
IMZ 122	0.007	.	.	.	.	.	(0.020)	0.019	.	.	.	40 mm Ø x 40 mm
14X MSFM 2H	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm last stock
ECRM 058-2D	0.0095	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 30 or 25 mm
IARM 29C	0.009	(0.003)	.	.	(0.003)	0.005	(<0.001)	.	(0.002)	.	.	31 mm Ø x 2 or 18 mm
IARM 29D	0.0046	(0.0003)	.	.	(0.0027)	(0.0082)	.	.	(0.0030)	.	.	31 mm Ø x 2 or 18 mm
BS 65C	.	.	.	.	.	.	.	.	.	.	.	37 mm Ø x 19 mm
BS 66B	.	.	.	.	.	.	.	.	.	.	.	41 mm Ø x 19 mm
CT X56617	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
IMZ 121	0.002	.	.	.	.	.	0.011	0.017	.	.	.	40 mm Ø x 40 mm
14X MSFM 3	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
KUT B2/2	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 39 mm

RM RESULFURIZED STEEL XRF SET

Part Number: BS RESUL-4 Set of 4 samples, each 34 - 42 mm Ø x 7 mm discs

Table with 17 columns: Grade, Number, C, Mn, P, S, Si, Cu, Ni, Cr, Mo, Al, Co, N, Sn, V, As. Rows include grades 1117, 1140 +P, 1141, and 1215.

SILICON STEEL

= Class, where 1 = CRM and 2 = RM

Table with 17 columns: #, Number, Si, C, Mn, P, S, Cu, Ni, Cr, Al, Als, Mo, N, Sn, Ti. Rows include various steel grades such as NCS HS11706-5, SRM 1135, ECRM 191-1D, etc.

Table with 14 columns: Number, As, B, Ca, Co, Nb, O, Pb, Sb, Ta, V, W, Zr, Units. Rows include grades like NCS HS11706-5, SRM 1135, ECRM 191-1D, etc., with units specified in mm.

LOW ALLOY STEEL WITH C > 0.3% CONTINUED ON THE NEXT PAGE

= Class, where 1 = CRM and 2 = RM

* provisional analysis

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	N	Nb	Ti
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 182A	1.38	0.370	0.008	0.006	0.123	0.293	2.82	0.122	0.023	0.017	0.171	0.011	0.0049	0.001	0.004
1	SS 402/2	1.311	0.288	0.0161	0.0138	0.111	0.302	0.808	0.652	0.161	.	.	0.140	0.0069	.	.
2	CT 833939	1.28	0.23	0.010	0.012	0.20	0.11	0.10	0.18	.	.	.	0.024	.	.	.
1	ECRM 035-2D	1.277	0.305	0.0038	0.011	0.216	0.0085	0.0190	0.0104	0.0193	.	.	0.0056	0.0230	.	0.0030
2	CT 833941	1.24	0.24	0.010	0.009	0.27	0.10	0.14	0.16	.	.	.	0.014	.	.	.
1	IMZ 65/2	1.19	0.27	0.013	0.007	0.13	0.059	0.067	0.079	0.030	.	.	.	.	.	.
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
2	BS 53E	1.08	0.37	0.007	0.012	0.24	0.11	0.26	1.45	0.003	.	0.011	0.10	0.0086	.	0.002
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
1	IARM 49C	1.04	0.31	0.009	0.013	0.26	0.082	0.064	1.35	0.016	.	0.007	0.015	0.0078	0.001	0.003
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)
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
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	IRSID 1744	1.016	0.328	0.024	(0.034)	0.291	0.143	0.085	1.50	.	.	.	(0.016)	.	.	(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	.	0.019	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	(0.00025)	0.0041
1	IARM 324A *	0.99	1.01	0.009	0.028	0.16	0.22	0.082	0.43	(0.002)	.	(0.01)	0.021	0.0084	0.014	0.002
2	BS A485-1	0.98	1.10	0.019	0.004	0.62	0.16	0.13	1.07	0.017	.	0.010	0.029	0.0060	.	0.003
1	KUT B15	0.98	0.69	0.030	0.031	0.80	0.14	0.15	3.70	0.13	.	0.21	1.20	.	.	(0.32)
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	.	.	0.0086	.	(0.0007)
2	CRM Fe D	0.814	0.166	0.019	0.012	1.08	0.07	0.134	3.11	0.156	.	0.320	1.34	.	0.32	0.23
2	12X LA5	0.81	0.98	0.057	0.015	0.67	0.09	0.13	0.12	0.19	.	.	0.19	.	.	.
1	KUT A17	0.78	1.79	0.039	0.024	0.37	0.53	0.59	0.24	0.016	.	0.039	0.074	.	(0.043)	0.022
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	ECRM 059-2D	0.721	0.495	0.0046	0.0084	0.188	0.0074	0.0198	0.0090	0.00045	0.00020	.	0.0018	0.0051	.	.
2	BS 54F	0.70	0.82	0.010	0.018	0.50	0.166	0.17	0.18	(0.002)	.	0.062	0.031	0.0023	0.023	0.017
1	SS 404/2	0.696	0.532	0.0479	0.0228	1.121	0.427	0.393	0.774	0.017	.	.	0.307	0.0089	.	.
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	BS 54G	0.658	0.82	0.011	0.012	0.50	0.151	0.163	0.160	0.018	.	0.0019	0.019	<0.0004	0.024	0.015
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	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	CKD 185A	0.566	0.715	0.024	(0.02)	0.230	0.179	3.84	0.032	0.060	0.054	0.032	0.123	0.0051	0.20	0.022
1	12X 15258	0.548	1.434	0.0439	0.070	1.020	0.0934	0.327	0.465	0.032	.	0.272	0.215	.	0.103	0.120
1	IRSID 1748	0.542	0.638	0.0130	0.0187	1.482	0.0458	0.0481	0.633	.	(0.0014)	0.0054	(0.006)	0.0107	0.0005	0.0011
1	12X LA4	0.537	0.303	0.0363	0.039	0.335	0.334	0.521	0.499	0.057	.	0.105	0.489	0.0222	.	.
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	N	Nb	Ti
1	IARM 321A *	0.53	1.53	0.012	0.017	0.64	0.22	0.47	0.24	0.004	.	0.006	0.026	0.010	(0.002)	0.0036
1	IARM 194A	0.517	1.04	0.039	0.025	0.49	0.26	0.79	0.70	0.102	.	0.052	0.40	0.0055	0.056	0.078
2	IARM 34A	0.51	0.78	0.01	0.010	0.22	0.18	0.14	0.99	0.014	.	0.009	0.044	0.0076	0.003	0.003
2	BS 4941	0.490	0.79	0.012	0.017	0.27	0.106	0.074	0.96	0.024	.	0.008	0.039	0.0076	.	.
2	BS 43A	0.49	0.81	0.008	0.026	0.25	0.18	0.24	0.93	0.003	.	0.008	0.06	0.0074	.	0.002
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
2	12X LA3	0.48	1.50	0.032	0.040	0.13	0.20	0.31	0.37	0.06	.	.	0.30	.	.	.
1	IRSID 1729	0.462	0.292	(0.020)	(0.010)	0.385	(0.025)	4.70	(0.388)	(0.014)	.	.	1.17	.	.	.
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	.	.	.	1.46	.	.	0.037
2	12X 357	0.45	0.24	0.016	0.062	0.23	.	.	0.06	.	.	0.21	.	.	(0.001)	.
2	BS XCCV	0.44	1.75	0.012	0.024	0.28	0.015	0.018	0.041	0.028	.	0.006	0.007	0.0056	.	0.002
1	SS 410/2	0.428	0.419	0.074	0.041	1.10	0.436	2.07	1.684	0.046	.	0.0248	0.432	0.0155	.	.
1	SRM 1173	0.423	0.19	0.033	0.092	1.28	0.204	4.06	2.70	.	.	.	1.50	.	.	.
2	BS 60C	0.42	0.80	0.011	0.013	0.24	0.15	1.71	0.87	0.034	.	0.012	0.25	0.0067	.	.
1	BS 68A	0.42	0.58	0.007	0.008	0.40	0.062	0.20	1.44	1.22	.	.	0.39	.	.	(0.002)
1	IARM 252A	0.419	0.91	0.024	0.009	0.248	0.107	0.507	0.501	0.017	.	0.008	0.206	0.0085	0.002	0.001
1	IARM 252C	0.416	0.92	0.025	0.008	0.248	0.109	0.505	0.501	0.017	.	0.008	0.205	0.0083	0.002	0.001
2	BS 4942	0.414	0.56	0.015	0.021	0.22	0.165	0.16	0.97	(0.004)	.	0.010	0.54	0.0080	.	.
1	IARM 323A *	0.41	1.14	0.018	0.062	0.19	0.30	0.085	0.15	(0.003)	.	0.007	0.023	0.011	0.002	0.002
2	BS 1962	0.41	0.94	0.007	0.011	0.242	0.224	0.16	1.05	0.018	.	0.008	0.229	0.0095	.	0.004
2	BS 59C	0.41	0.88	0.011	0.024	0.22	0.11	0.16	0.99	(0.027)	.	.	0.16	.	.	.
2	BS 60D	0.406	0.82	0.014	0.009	0.22	0.075	1.76	0.76	0.032	.	0.011	0.23	0.0070	.	.
1	BS 67C	0.404	0.91	0.015	0.009	0.239	0.173	0.61	0.511	0.024	.	0.010	0.221	0.0075	.	(0.002)
1	SS 114	0.403	0.416	0.0044	0.0046	0.295	0.358	1.502	0.187	0.078	.	0.0171	0.184	0.0043	0.0042	0.0096
1	IMZ 63/2	0.40	0.63	0.017	0.009	0.16	0.14	0.13	0.16	(0.010)	.	.	.	.	.	.
2	BS 68B	(0.389)	0.52	0.010	0.020	0.26	0.163	0.165	1.51	1.08	.	0.010	0.309	0.0073	.	0.005
1	IRSID 1731	0.386	0.458	0.017	(0.008)	0.263	0.060	2.88	0.734	(0.012)	.	.	(0.036)	.	.	(0.047)
1	CKD 186B	0.382	1.299	0.012	0.007	1.41	0.227	1.57	1.50	0.042	0.038	0.006	0.251	(0.005)	0.004	0.044
1	IMZ 115	0.36	0.65	0.045	0.024	0.043	0.25	0.35	0.27	(0.015)	(0.0058)	.	0.070	0.0087	0.09	.
2	12X 356	0.36	0.44	0.049	0.031	0.37	.	.	.	0.05	.	0.12	.	.	0.02	.
1	IRSID 1750	0.359	1.801	0.0128	0.075	0.246	0.320	0.187	0.227	0.0175	.	(0.0120)	0.0433	0.0107	(0.0010)	(0.0016)
1	IRSID 1730	0.355	0.403	0.010	(0.018)	0.325	0.096	3.64	1.65	(0.038)	.	0.072	.	.	.	.
1	IMZ 114	0.35	1.16	0.024	0.021	0.33	0.51	0.10	0.42	(0.029)	0.018	.	0.11	0.0142	.	(0.005)
1	SRM 1762a	0.341	1.99	0.0346	0.0295	0.351	0.1186	0.923	1.156	0.0706	.	0.0616	0.353	(0.002)	0.0692	0.0952
1	IMZ 174	0.33	0.32	0.029	0.023	0.93	0.17	0.13	5.10	0.080	.	0.011	1.24	0.0288	.	(0.001)
1	IARM															

LOW ALLOY STEEL WITH C > 0.3%

CONTINUED FROM THE PREVIOUS PAGE

* provisional analysis

Number	As	B	Ca	Fe	Mg	O	Pb	Sb	Sn	Ta	V	W	Zr	Units
CKD 182B	0.005	0.0003	.	.	.	.	(0.000)	0.001	0.004	0.000	0.027	0.016	0.001	44 mm Ø x 13 or 25 mm
CKD 182A	0.005	0.0003	.	.	.	.	(0.000)	0.001	0.004	0.000	0.027	0.016	0.001	44 mm Ø x 13 or 25 mm
SS 402/2	.	.	.	.	.	.	.	.	.	.	0.194	.	.	38 mm Ø x 19 mm
CT 833939	.	.	.	.	.	.	.	.	.	.	<0.01	0.006	.	30-35mm Ø x 20-25 mm
ECRM 035-2D	0.0017	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm
CT 833941	.	.	.	.	.	.	.	.	.	.	<0.01	0.006	.	30-35mm Ø x 20-25 mm
IMZ 65/2	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
KUT A18	0.003	(0.011)	.	.	.	.	.	0.005	0.016	.	0.10	.	.	30-35mm Ø x 39 mm
BS 53E	.	.	.	.	.	.	.	.	0.005	.	0.004	.	.	44 mm Ø x 15 mm
SRM 1761a	(0.011)	0.0023	.	(95)	.	.	.	(0.0052)	(0.050)	(0.050)	0.054	.	0.012	34 mm Ø x 19 mm
IARM 49C	0.004	(0.0001)	.	.	.	(0.0012)	(<0.001)	.	0.005	.	0.008	(<0.005)	.	31 mm Ø x 2 or 18 mm
IMZ 172	.	.	.	.	.	.	.	.	0.010	.	0.20	0.011	.	40 mm Ø x 40 mm
BS 2952	0.004	.	0.0003	.	.	(0.002)	.	0.003	0.006	.	0.005	.	.	44 mm Ø x 19 mm
BS 53G	0.004	(0.0001)	(0.0001)	.	.	0.001	.	.	0.007	.	0.006	(0.13)	.	44 mm Ø x 19 mm
IRSID 1744	0.011	.	.	.	.	.	(0.002)	(0.009)	(0.011)	.	.	.	.	37 mm Ø x 30 mm
CKD 184A	0.006	0.0005	.	.	.	.	(0.000)	0.002	0.008	0.000	0.017	(0.001)	(0.002)	44 mm Ø x 13 or 25 mm
NILAB 100LA D	0.004	.	.	.	.	.	.	.	.	.	0.004	.	.	34 mm Ø x 40 mm
IRSID 1747	0.0170	(0.00015)	(0.00030)	.	(0.00022)	.	(0.00025)	(0.0034)	0.0105	.	0.0046	.	(0.0001)	37 mm Ø x 30 mm
IARM 324A *	0.006	0.0004	0.001	.	.	(0.003)	(0.002)	(0.003)	0.011	.	0.002	(0.004)	(0.001)	31 mm Ø x 2 or 18 mm
BS A485-1	0.006	.	.	.	.	(0.0008)	.	.	0.011	.	0.003	.	.	39 mm Ø x 19 mm
KUT B15	.	.	.	.	.	.	.	.	.	.	(0.33)	.	.	30-35mm Ø x 39 mm
SS 401/2	.	.	.	.	.	.	.	.	.	.	0.496	.	.	38 mm Ø x 19 mm
IMZ 119	.	.	(0.0002)	.	.	.	.	.	.	.	0.006	.	.	40 mm Ø x 40 mm
CRM Fe D	0.005	.	0.0014	.	.	.	.	.	0.0055	.	0.043	.	.	40 mm Ø x 40 mm
12X LA5	.	.	.	.	.	.	.	.	.	.	0.58	.	.	40 mm Ø x 15 mm
KUT A17	0.032	(0.012)	.	.	.	.	.	(0.10)	0.05	.	0.15	.	.	30-35mm Ø x 39 mm
IARM 172A	(0.005)	0.0003	.	.	.	0.0006	(<0.01)	.	0.003	.	0.003	0.038	.	31 mm Ø x 2 or 18 mm
SS 403/2	.	.	.	.	.	.	.	.	.	.	0.341	.	.	38 mm Ø x 19 mm
IMZ 64/2	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
ECRM 059-2D	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 30 or 25 mm
BS 54F	0.0014	0.0022	0.0001	.	.	.	.	.	0.030	<0.002	0.009	0.025	<0.002	44 mm Ø x 19 mm
SS 404/2	.	.	.	.	.	.	.	.	.	.	0.107	.	.	38 mm Ø x 19 mm
IMZ 118	.	.	(0.0002)	.	.	.	.	.	0.22	.	0.059	.	.	40 mm Ø x 40 mm
BS 54G	(<0.005)	(<0.0005)	(0.001)	.	.	(<0.003)	.	.	0.026	.	0.012	(<0.03)	.	45 mm Ø x 19 mm
IMZ 116	.	.	.	.	.	.	.	.	.	.	0.076	.	.	40 mm Ø x 40 mm
SRM 1764a	0.0100	(0.0010)	.	(95.1)	.	.	.	.	(0.024)	0.0297	0.1063	(0.0016)	(0.0012)	34 mm Ø x 19 mm
CKD 185A	0.022	0.0116	.	.	.	.	0.002	0.011	0.003	0.085	0.178	(0.001)	0.002	44 mm Ø x 13 or 25 mm
12X 15258	.	.	.	.	.	.	.	.	0.0453	.	0.218	0.102	.	42 mm Ø x 15 mm
IRSID 1748	0.0037	(0.0002)	0.0006	.	.	(0.0016)	(0.00024)	0.0007	0.0031	(<0.0002)	0.0043	(0.0008)	Zn: 0.0146	37 mm Ø x 30 mm
12X LA4	.	.	.	.	.	.	.	.	.	.	0.328	0.091	.	42 mm Ø x 15 mm

Number	As	B	Ca	Fe	Mg	O	Pb	Sb	Sn	Ta	V	W	Zr	Units
IARM 321A *	0.006	0.001	(0.002)	.	.	(0.006)	(0.001)	(0.002)	0.019	.	0.089	0.005	(0.001)	31 mm Ø x 2 or 18 mm
IARM 194A	0.031	0.0058	0.0002	.	.	0.0012	0.0010	0.015	0.017	.	0.333	0.13	0.026	31 mm Ø x 2 or 18 mm
IARM 34A	(0.006)	(0.0002)	.	.	.	(0.0014)	.	.	0.009	.	0.17	(0.02)	.	31 mm Ø x 2 or 18 mm
BS 4941	(0.004)	.	(0.0002)	.	.	0.0017	.	.	0.006	.	0.164	.	.	41 mm Ø x 19 mm
BS 43A	.	.	.	.	.	.	.	.	0.011	.	0.15	.	.	41 mm Ø x 19 mm
IMZ 117	.	.	(0.0002)	.	.	.	.	.	.	.	0.087	.	.	40 mm Ø x 40 mm
BS 1144	0.009	.	.	.	.	0.0016	(0.001)	.	0.0113	.	0.0039	(0.003)	.	38 mm Ø x 19 mm
12X LA3	.	.	.	.	.	.	.	.	.	.	0.19	.	.	40 mm Ø x 15 mm
IRSID 1729	.	.	.	.	.	.	.	.	.	.	0.478	.	.	35 mm Ø x 30 mm
IPT 503	.	.	.	.	.	.	0.008	.	.	.	.	.	.	35 mm Ø x 20 mm
RM C1173	.	.	.	.	.	.	.	.	.	.	0.42	.	.	32 mm Ø x 19 mm
12X 357	.	0.014	.	.	.	.	.	<0.005	.	.	0.19	.	(<0.005)	40 mm Ø x 15 mm
BS XCCV	0.002	.	.	.	.	(0.0018)	.	.	<0.001	.	<0.003	.	.	36 mm Ø x 19 mm
SS 410/2	.	.	.	.	.	.	.	.	.	.	0.44	.	.	38 mm Ø x 19 mm
SRM 1173	.	.	.	.	.	.	.	.	.	.	0.42	.	.	32 mm Ø x 19 mm
BS 60C	.	.	.	.	.	.	.	.	0.009	.	<0.004	.	.	41 mm Ø x 19 mm
BS 68A	low supply	.	.	.	.	.	.	.	(0.006)	.	(0.005)	.	.	40 mm Ø x 16 mm
IARM 252A	0.005	0.0002	.	.	.	(0.001)	0.0007	.	0.007	.	0.005	0.004	.	31 mm Ø x 2 or 18 mm
IARM 252C	0.004	(0.0001)	(0.0003)	.	.	(0.002)	0.001	<0.005	0.007	.	0.005	<0.005	<0.002	31 mm Ø x 2 or 18 mm
BS 4942	0.005	.	0.0006	.	.	(0.0021)	.	.	0.014	.	0.28	.	.	38 mm Ø x 19 mm
IARM 323A *	0.006	0.0004	0.001	.	.	0.009	(0.001)	(0.003)	0.011	.	0.020	0.004	(0.001)	31 mm Ø x 2 or 18 mm
BS 1962	0.007	.	.	.	(0.0001)	.	(0.001)	.	0.010	.	0.004	.	.	41 mm Ø x 19 mm
BS 59C	.	.	.	.	.	.	.	.	0.010	limited supply, no uncertainties	.	.	.	40 mm Ø x 19 mm
BS 60D	(0.004)	.	(0.0005)	.	.	.	.	.	0.004	.	0.010	.	.	41 mm Ø x 19 mm
BS 67C	.	.	.	.	.	(0.0014)	.	.	0.010	.	0.0022	.	.	38 mm Ø x 19 mm
SS 114	0.0025	0.0008	.	.	.	.	.	.	0.041	.	0.0086	.	0.0051	44 mm Ø x 50 mm
IMZ 63/2	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
BS 68B	.	.	.	.	.	.	.	.	0.010	.	0.007	.	.	41 mm Ø x 19 mm
IRSID 1731	.	.	.	.	.	.	.	.	.	.	.	.	.	44 mm Ø x 30 mm
CKD 186B	0.007	0.0009	.	(93.12)	.	.	(0.000)	0.002	0.018	0.009	0.020	0.054	(0.002)	44 mm Ø x 13 or 25 mm
IMZ 115	.	.	.	.	.	.	.	.	.	.	(0.063)	.	.	40 mm Ø x 40 mm
12X 356	.	0.007	.	.	.	.	.	0.02	.	.	0.09	.	0.01	40 mm Ø x 15 mm
IRSID 1750	0.0188	(0.0002)	(0.0002)	.	(<0.0002)	.	(<0.001)	0.0031	0.0137	(<0.0010)	0.114	(0.004)	(0.0002)	38 mm Ø x 25 mm
IRSID 1730	.	.	.	.	.	.	.	.	(0.010)	.	(0.010)	.	.	32 mm Ø x 30 mm
IMZ 114	.	.	(0.0002)	.	.	.	0.033	(0.006)	0.008	.	0.096	.	.	40 mm Ø x 40 mm
SRM 1762a	0.0173	0.0042	.	(94.2)	.	.	.	.	0.0479	0.0203	0.02010	.	0.0285	34 mm Ø x 19 mm
IMZ 174	.	.	.	.	.	.	.	.	0.010	.	0.98	0.021	.	40 mm Ø x 40 mm
IARM 322A *	0.005	(0.001)	(0.002)	.	.	0.006	<0.001	0.003	0.017	.	0.12	0.003	(0.001)	31 mm Ø x 2 or 18 mm
BS 4330V	.	.	0.0010	.	.	0.0018	.	.	0.010	.	0.094	.	.	37 mm Ø x 19 mm
IARM 143D *	.	.	.	.	.	.	.	.	0.008	.	0.0004	.	.	31 mm Ø x 2 or 18 mm
CRM Fe 2	.	0.0033	.	.	.	.	.	.	0.035	.	0.310	.	.	40 mm Ø x 40 mm
BS 1951	.	.	(0.0008)	.	.	(0.002)	.	.	0.008	.	0.004	.	.	38 mm Ø x 19 mm
SS 615/1	0.10	.	.	44 mm Ø x 19 mm
IMZ 173	0.012	.	0.47	0.10	.	40 mm Ø x 40 mm

Number	As	B	Ca	Fe	Mg	O	Pb	Sb	Sn	Ta	V	W	Zr	Units
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LOW ALLOY STEEL WITH 0.13 % < C < 0.3 %

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= 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	SRM 1269	0.298	1.35	0.012	0.0061	0.189	0.095	0.108	0.201	0.016	.	.	.	0.036	.	.	0.004
1	ECRM 086-1D	0.297	0.879	0.024	0.037	0.206	0.320	0.168	0.150	.	.	0.023	.	.	.	0.026	.
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	SS 408/2	0.289	0.557	0.056	0.030	0.237	0.694	4.13	0.111	0.154	.	0.0046	.	0.098	0.0075	.	0.067
1	12X 349	0.278	0.910	0.0340	0.0326	0.295	0.308	0.285	0.190	0.152	.	0.0050	0.0211	0.058	.	0.175	0.0158
1	SRM 1225	0.274	0.48	0.007	0.014	0.221	.	0.018	0.91	.	.	.	.	0.166	.	.	0.004
2	BS 69B	0.26	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 352	0.257	0.533	0.074	0.131	0.498	0.162	0.380	0.348	0.090	.	0.030	0.031	0.242	.	0.124	0.042
1	IARM 195B	0.255	1.84	0.018	0.005	1.16	0.52	1.00	0.216	0.029	.	0.021	0.101	0.052	0.0070	0.084	0.082
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	IRSID 1740	(0.246)	0.460	0.037	.	0.378	(0.118)	0.956	.	(0.114)	.	.	.	0.207	.	(0.057)	0.050
1	IRSID 1741	(0.244)	0.466	0.037	.	0.380	0.117	0.962	.	(0.102)	.	.	.	0.204	.	0.059	0.051
1	IRSID 1742	(0.243)	0.470	0.037	.	0.381	0.119	0.983	.	(0.089)	.	.	.	0.208	.	0.059	0.051
1	CKD 181B	0.240	0.988	0.042	0.008	0.445	0.095	0.737	0.669	0.016	0.014	0.029	0.050	0.395	(0.005)	0.122	0.307
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
2	BS 8822	0.228	0.92	0.011	0.025	0.26	0.17	0.47	0.52	0.022	.	0.007	0.019	0.34	0.0085	0.011	0.003
1	CKD 181A	0.225	0.971	0.039	0.007	0.435	0.093	0.725	0.660	0.016	0.014	0.027	0.050	0.385	(0.005)	0.113	0.302
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	.
1	IARM 229A	0.218	0.86	0.008	0.010	0.331	0.014	0.029	0.015	0.027	.	(0.001)	0.011	0.493	0.0071	0.002	0.006
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	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	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	IARM 155C	0.204	0.550	0.009	0.025	0.286	0.130	3.36	0.099	0.027	.	0.004	0.011	0.265	0.0079	0.007	0.002

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	Co	Mo	N	Sn	V
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	KUT B3	0.20	0.14	(0.012)	0.025	0.53	0.25	.	5.94	.	.	.	.	.	.	.	1.16
2	BS 3972	0.195	1.30	0.083	0.056	0.106	0.082	1.19	0.108	0.031	.	0.012	0.010	0.032	0.0066	0.012	0.191
1	BS 2992	0.195	0.72	0.008	0.011	0.210	0.026	0.47	0.53	0.036	.	0.003	0.010	0.164	0.0042	0.0017	0.001
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
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
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)
2	BS 61C	0.187	0.76	0.014	0.026	0.21	0.030	0.55	0.50	0.033	.	0.003	0.012	0.17	0.0050	0.0014	<0.002
1	IARM 33C	0.184	0.562	0.009	0.017	0.25	0.223	1.71	0.133	0.025	.	(0.005)	0.008	0.236	0.0078	0.009	0.0021
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)
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	.
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)
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	IRSID 1727	0.154	0.650	0.009	0.012	0.335	0.050	0.076	0.967	.	.	(0.036)	.	0.449	.	(0.02)	(0.011)
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 51E	0.15	0.59	0.010	0.021	0.28	0.22	1.75	0.14	0.028	.	.	0.035	0.21	0.0086	0.010	(0.0011)
1	12X 12747	0.149	2.02	0.029	0.041	0.337	0.437	0.391	0.443	0.015	.	0.0114	0.200	0.500	.	0.167	0.0375
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
1	ECRM 193-1D	0.14	0.97	0.007	0.009	0.40	0.60	1.18	0.18	0.025	.	0.0062	0.007	0.35	0.0108	.	(0.002)
2	BS 46A	0.139	0.55	0.018	0.030	0.18	0.13	0.20	2.37	0.022	.	.	0.011	0.93	0.0140	0.008	0.013
2	BS 45A	0.133	0.46	0.016	0.022	0.69	0.17	0.15	1.16	0.032	.	0.007	0.009	0.52	0.0081	0.011	0.004
2	BS 1972	0.130	0.51	0.012	0.017	0.24	0.089	3.28	1.53	0.014	.	0.004	0.012	0.052	0.0096	0.006	0.003
2	BS 47A	0.130	0.44	0.015	0.015	0.27	0.11	0.12	4.22	0.015	.	.	0.011	0.47	0.0181	0.008	0.016

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	Co	Mo	N	Sn	V
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LOW ALLOY STEEL WITH 0.13 % < C < 0.3 %

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Number	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Ta	Ti	W	Zn	Zr	Units
SRM 1269	0.005	32 mm Ø x 19 mm
ECRM 086-1D	38 mm Ø x 30 mm
IMZ 178	.	.	.	.	0.105	.	.	.	.	.	0.017	.	.	40 mm Ø x 40 mm
SS 408/2	.	.	.	.	.	.	0.0006	.	.	.	.	.	.	38 mm Ø x 19 mm
12X 349	.	.	.	.	.	.	.	.	.	0.125	0.053	.	.	42 mm Ø x 15 mm
SRM 1225	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
BS 69B	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
12X 352	.	.	.	.	.	.	.	.	.	0.246	0.140	.	.	42 mm Ø x 15 mm
IARM 195B	0.0039	0.0002	.	.	0.007	0.0017	0.002	0.011	.	0.002	0.38	.	0.002	31 mm Ø x 2 or 18 mm
BS 6418	.	.	.	.	.	0.0012	.	.	.	0.003	.	.	.	57 mm Ø x 19 mm
IRSID 1740	.	.	.	.	.	.	.	.	.	0.060	.	.	.	38 mm Ø x 25 mm
IRSID 1741	.	.	.	.	.	.	.	.	.	(0.049)	.	.	.	38 mm Ø x 25 mm
IRSID 1742	.	.	.	.	.	.	.	.	.	(0.041)	.	.	.	38 mm Ø x 25 mm
CKD 181B	0.0076	.	(95.37)	.	0.062	.	0.0005	0.017	0.042	0.155	0.188	.	0.001	44 mm Ø x 13 or 25 mm
IMZ 113	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
BS 8822	.	(0.0004)	.	.	.	0.0022	.	.	.	.	.	.	.	47 mm Ø x 19 mm
CKD 181A	0.0069	.	(95.48)	.	0.058	.	0.0005	0.016	0.039	0.149	0.188	.	0.001	44 mm Ø x 13 or 25 mm
ECRM 197-1D	.	.	.	.	.	.	.	.	.	0.0005	.	.	.	38 mm Ø x 25 mm
IARM 229A	0.0002	.	.	.	0.002	0.0013	(0.001)	(0.002)	.	0.002	(0.003)	.	(0.002)	31 mm Ø x 2 or 18 mm
BS 3961	.	.	.	.	.	.	.	.	.	(<0.003)	.	.	.	44 mm Ø x 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
IPT 502	.	.	.	.	.	.	.	.	.	0.0016	.	.	.	40 mm Ø x 20 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 19 mm
IARM 155C	0.0002	(0.0004)	.	.	0.002	0.0018	(0.001)	(0.002)	.	0.0019	<0.01	.	(0.001)	31 mm Ø x 2 or 18 mm

Number	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Ta	Ti	W	Zn	Zr	Units
SRM 1763a	0.0054	.	(95.3)	.	0.100	.	.	(0.011)	(0.012)	0.308	(0.002)	.	0.044	34 mm Ø x 19 mm
KUT B3	.	.	.	.	.	.	.	.	.	.	1.19	.	.	30-35mmØ x 39 mm
BS 3972	0.0104	.	.	.	(0.001)	0.0038	.	.	.	0.163	(<0.008)	.	.	35 mm x 35 mm x 19 mm
BS 2992	(0.0002)	(0.0005)	.	(0.0001)	.	0.0028	.	.	.	(0.0007)	.	.	.	38 mm Ø x 19 mm
IMZ 112	.	.	.	.	0.013	.	.	.	.	0.010	.	.	.	40 mm Ø x 40 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 19 mm
IMZ 162	.	.	.	.	.	.	.	.	.	0.12	.	.	.	40 mm Ø x 40 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 19 mm
BS 61C	.	(0.0004)	.	.	.	.	0.00003	.	.	.	.	.	.	41 mm Ø x 19 mm
IARM 33C	(0.0002)	.	.	.	0.002	0.0021	<0.002	.	.	0.0014	0.0026	.	.	31 mm Ø x 2 or 18 mm
BS LF3	0.0001	(0.0001)	.	.	.	0.004	.	.	.	.	.	.	.	38 mm Ø x 19 mm
ECRM 087-1D	.	.	.	.	.	.	.	0.0046	.	.	.	.	.	38 mm Ø x 19 mm
BS 3962	.	.	.	.	.	.	.	.	.	.	.	.	.	37 mm Ø x 19 mm
BS XCCT	.	.	.	.	.	(0.005)	.	.	.	.	.	.	.	36 mm Ø x 19 mm
IRSID 1727	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 30 mm
IMZ 176A	.	.	.	.	.	.	.	.	.	.	(0.015)	.	.	40 mm Ø x 40 mm
BS 51E	.	.	.	.	.	(0.004)	.	.	.	.	.	low supply	.	38 mm Ø x 15 mm
12X 12747	.	.	.	.	.	.	.	.	.	0.072	0.030	.	.	42 mm Ø x 15 mm
BS 15A	(0.0002)	(0.0005)	.	.	0.041	.	(0.0003)	(0.003)	low	0.008	(0.004)	supply	0.022	32 mm Ø x 17 mm
ECRM 193-1D	.	.	.	.	0.0232	.	.	.	.	(0.0013)	.	.	.	36-41 mm Ø x 28-35 mm
BS 46A	.	.	.	.	(0.002)	(0.0038)	.	.	.	.	.	.	.	38 mm Ø x 19 mm
BS 45A	.	.	.	.	.	0.0025	.	0.0027	.	.	.	.	.	38 mm Ø x 19 mm
BS 1972	(0.0001)	(0.0002)	.	.	(0.001)	(0.0026)	(0.001)	(0.004)	.	(0.003)	(0.004)	.	.	39 mm Ø x 19 mm
BS 47A	0.002	(0.003)	.	.	.	0.003	.	.	.	38 mm Ø x 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	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
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
2	BS 48A	0.121	0.43	0.012	0.011	0.68	0.13	0.29	8.75	0.018	.	0.022	0.95	0.021	0.014	0.014
1	IARM 156B	0.117	0.59	0.008	0.001	0.32	0.116	3.24	1.31	0.065	.	0.010	0.105	0.0019	0.006	0.005
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	SRM 1138a	0.11	0.35	0.035	0.056	0.25	0.09	0.10	0.13	.	.	.	0.05	.	.	0.02
1	IRSID 1728	0.107	0.671	0.023	0.033	0.415	0.210	1.360	1.060	.	.	.	0.064	.	(0.02)	(0.008)
1	BS 9905	0.107	0.333	0.008	0.008	0.327	0.115	0.123	8.22	0.017	.	0.016	0.90	0.055	0.009	0.236
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	IRSID 1713	0.105	0.38	0.008	0.02	0.070	0.209	3.26	0.71	0.035	.	.	0.04	.	.	0.003
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
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
1	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
2	12X 15256	0.094	0.51	0.046	0.042	0.16	0.06	3.51	0.32	0.03	.	0.28	0.07	.	0.15	0.64
1	KUT T3/2	0.09	0.60	0.058	0.033	0.66	0.10	0.11	0.40	.	.	.	.	.	.	.
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	SS 409/2	0.086	0.559	0.0141	0.0179	1.18	0.205	3.02	1.318	0.094	.	.	0.599	0.0108	.	0.008
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	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	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	0.0015	0.004	.	0.0050	0.020	0.0008	0.006	0.033
1	CKD 183B	0.050	1.76	0.010	0.012	1.03	0.575	1.10	0.204	0.150	0.141	0.119	0.036	0.0036	0.054	0.004
1	SS 421	(0.049)	(0.11)	(0.012)	(0.027)	(0.07)	.	.	.	.	.	.	(0.028)	.	.	(<0.02)
1	12X 15252	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	CKD 183A	0.047	1.74	0.009	0.012	1.02	0.568	1.09	0.204	0.15	0.14	0.119	0.036	0.0036	0.051	0.004
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	IMZ 110	0.011	0.015	0.008	0.010	0.009	0.051	0.019	0.007	0.008	0.003	.	0.025	0.0058	0.026	0.002
2	12X LA6	0.01	0.10	0.005	0.006	0.06	0.01	0.03	0.03	<0.01	.	.	<0.01	.	.	<0.01
2	RM Fe 1	0.008	0.068	0.006	0.005	0.016	0.015	0.022	0.027	<0.002	.	0.0029	0.0016	0.0027	<0.002	<0.0005
1	KUT B20	0.008	0.09	0.012	0.013	0.005	0.034	0.038	0.03	(0.01)	.	<(0.01)	<(0.01)	.	(0.003)	<(0.005)
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	ECRM 196-1D	0.0039	0.365	0.0076	0.0005	1.908	.	.	.	0.201	.	.	.	0.0020	.	.
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 064-1D	0.0026	0.1641	0.0091	0.0104	0.0065	0.0077	0.0115	0.0184	0.0330	0.0302	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
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	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
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
2	BS 48A	0.121	0.43	0.012	0.011	0.68	0.13	0.29	8.75	0.018	.	0.022	0.95	0.021	0.014	0.014
1	IARM 156B	0.117	0.59	0.008	0.001	0.32	0.116	3.24	1.31	0.065	.	0.010	0.105	0.0019	0.006	0.005
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	SRM 1138a	0.11	0.35	0.035	0.056	0.25	0.09	0.10	0.13	.	.	.	0.05	.	.	0.02
1	IRSID 1728	0.107	0.671	0.023	0.033	0.415	0.210	1.360	1.060	.	.	.	0.064	.	(0.02)	(0.008)
1	BS 9905	0.107	0.333	0.008	0.008	0.327	0.115	0.123	8.22	0.017	.	0.016	0.90	0.055	0.009	0.236
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	IRSID 1713	0.105	0.38	0.008	0.02	0.070	0.209	3.26	0.71	0.035	.	.	0.04	.	.	0.003
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
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
1	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
2	12X 15256	0.094	0.51	0.046	0.042	0.16	0.06	3.51	0.32	0.03	.	0.28	0.07	.	0.15	0.64
1	KUT T3/2	0.09	0.60	0.058	0.033	0.66	0.10	0.11	0.40	.	.	.	.	.	.	.
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	SS 409/2	0.086	0.559	0.0141	0.0179	1.18	0.205	3.02	1.318	0.094	.	.	0.599	0.0108	.	0.008
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	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	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	0.0015	0.004	.	0.0050	0.020	0.0008	0.006	0.033
1	CKD 183B	0.050	1.76	0.010	0.012	1.03	0.575	1.10	0.204	0.150	0.141	0.119	0.036	0.0036	0.054	0.004
1	SS 421	(0.049)	(0.11)	(0.012)	(0.027)	(0.07)	.	.	.	.	.	.	(0.028)	.	.	(<0.02)
1	12X 15252	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	CKD 183A	0.047	1.74	0.009	0.012	1.02	0.568	1.09	0.204	0.15	0.14	0.119	0.036	0.0036	0.051	0.004
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	IMZ 110	0.011	0.015	0.008	0.010	0.009	0.051	0.019	0.007	0.008	0.003	.	0.025	0.0058	0.026	0.002
2	12X LA6	0.01	0.10	0.005	0.006	0.06	0.01	0.03	0.03	<0.01	.	.	<0.01	.	.	<0.01
2	RM Fe 1	0.008	0.068	0.006	0.005	0.016	0.015	0.022	0.027	&						

RM LOW ALLOY STEEL XRF SET

Part Number: BS LAS-24 Set of 24 samples, each 35 - 45 mm Ø x 7 mm discs

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	0.018	0.041	0.007	0.033	0.002	.	0.006	0.0056	<0.001	<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 3931	0.420	0.91	0.010	0.018	0.27	0.128	0.10	0.97	0.176	0.023	0.008	.	0.008	0.0073	0.008	0.003
4150 + S	BS 42	0.516	1.24	0.021	0.073	0.24	0.25	0.18	0.67	0.19	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	0.49	0.81	0.008	0.026	0.25	0.18	0.24	0.93	0.06	0.003	.	.	0.008	0.0074	0.011	0.15
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
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
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
AMS 6418	BS 69B	0.26	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
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)

RM TOOL STEEL XRF SET

Part Number: BS TS-18 Set of 18 samples, each 35 - 45 mm Ø x 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-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	0.21	0.16	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	0.14	0.13	0.495	0.035	(0.005)	0.46	0.18	0.012	.
O-6	BS 41	1.41	0.89	0.013	0.011	1.02	0.038	0.15	0.22	0.23	(0.005)	0.035	0.05	.	.
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	0.21	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 30C	0.76	0.29	0.026	0.022	0.28	0.10	0.27	4.19	0.35	0.004	17.58	1.09	0.39	0.025
	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
	BS 49	0.36	0.33	0.014	0.014	0.93	0.070	0.20	3.51	2.40	0.004	0.31	0.62	2.00	0.019
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

CRM TOOL STEEL SET

sold in set/6 only limited supply clearance sale 36 mm Ø x 23 mm

Number	C	Mn	P	S	Si	Ni	Cr	Mo	V	W
CMSI 2179	0.941	0.401	0.035	0.012	0.167	0.099	4.93	3.54	0.38	7.05
CMSI 2180	0.879	0.304	0.030	0.015	0.216	0.143	4.47	4.10	0.74	6.44
CMSI 2176	0.845	0.294	0.0238	0.024	0.285	0.204	3.98	4.72	1.14	5.92
CMSI 2175	0.808	0.240	0.0191	0.032	0.417	0.276	3.50	5.30	1.63	5.27
CMSI 2177	0.735	0.077	0.0103	0.049	0.522	0.429	2.54	6.48	2.62	4.12
CMSI 2178	0.732	0.080	0.0138	0.031	0.435	0.378	2.98	5.85	2.11	4.68

TOOL STEEL CONTINUED ON THE NEXT PAGE

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Ti	V	W	Al
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	14X H59	2.14	0.259	0.0222	0.0126	0.406	0.039	0.239	12.40	0.037	1.11	0.032	.	4.06	0.011	(0.022)
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	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	IARM 41C	1.55	0.28	0.022	0.001	0.39	0.034	0.102	11.7	0.019	0.81	0.0106	0.0053	0.93	0.01	0.012
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	.
2	BS 37E	1.51	0.29	0.024	0.002	0.37	0.053	0.34	11.54	0.021	0.79	0.052	0.002	0.78	0.021	0.002
2	BS 41A	1.50	0.93	0.004	0.001	0.97	0.034	0.17	0.20	0.006	0.19	0.0077	0.004	(0.003)	(<0.003)	0.010
2	BS 41	1.41	0.89	0.013	0.011	1.02	0.038	0.15	0.22	.	0.23	.	.	0.05	0.035	(0.005)
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	4.1	0.129	5.16	0.044	0.003	3.9	5.5	0.01
2	IARM 45A	1.39	0.88	0.014	0.012	1.02	0.049	0.11	0.13	0.004	0.25	0.0079	0.003	0.005	.	0.011
2	CT X35568	1.36	0.14	0.006	0.002	0.19	0.10	0.054	0.076	.	0.017	.	.	.	3.20	.
2	CT X27081	1.32	0.20	0.004	0.001	0.24	0.026	0.031	0.052	.	0.008	.	.	.	3.39	.
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	SS 487/1	1.02	0.26	0.022	0.029	0.18	.	(0.14)	3.91	7.95	9.41	.	.	1.14	1.80	0.006
2	CT M7	1.00	0.29	0.012	0.003	0.34	0.066	0.10	3.60	.	8.49	.	.	2.02	1.78	.
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
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)	4.02	4.97	0.66	.	.	1.02	17.8	(0.006)
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 834167	0.90	1.62	0.014	0.018	0.37	0.058	0.055	0.20	.	0.26	.	.	0.086	.	.
2	14X 14952	0.89	0.62	0.055	0.055	0.32	0.02	0.35	4.95	0.02	0.32	.	.	1.25	18.00	.
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	0.014	0.13	0.495	0.012	0.035	.	.	0.18	0.46	(0.005)
1	14X HS 3	0.855	0.621	0.035	0.046	0.318	0.200	0.706	5.25	10.64	1.24	0.087	.	1.79	17.93	.
2	BS 32D	0.85	0.30	0.027	0.0022	0.25	0.039	0.053	4.14	0.010	4.92	0.018	.	1.82	6.15	0.018
2	14X 14946	0.85	0.53	0.051	0.048	0.46	0.25	1.26	5.06	0.44	0.21	.	.	1.03	16.9	.
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	.
2	14X 14948	0.83	0.65	0.011	0.017	0.26	0.04	0.29	4.04	0.16	0.14	.	.	0.65	18.8	.
1	IARM 44C *	0.83	0.30	0.027	0.004	0.31	0.12	0.13	4.06	0.25	5.0	0.033	.	1.92	6.0	0.055
2	14X 14892	0.83	0.23	0.054	0.047	0.23	0.20	0.23	3.99	0.16	4.99	.	.	1.76	6.30	.
1	IARM 306A *	0.83	0.21	(0.007)	0.0035	0.16	0.043	0.12	4.1	0.010	4.2	0.004	(0.002)	0.96	(0.01)	(0.005)
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	.
2	14X 14890	0.81	0.58	(0.012)	0.028	0.69	0.09	0.08	3.60	0.32	5.59	.	.	1.99	5.30	.
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	14X HS2	0.78	0.24	0.020	0.014	0.21	0.105	0.20	4.15	5.10	0.44	0.021	.	1.20	18.1	.
1	SS 486/1	0.74	0.21	0.029	0.021	0.27	.	(0.06)	4.54	0.08	5.20	.	.	1.82	5.80	(0.005)
1	IARM 48B	0.74	0.28	0.020	0.023	0.28	0.07	0.080	4.14	(0.040)	0.093	0.0096	(0.004)	1.12	(17.26)	(0.006)
2	CT X56839	0.72	2.12	0.011	0.076	0.30	0.038	0.069	0.94	.	1.29	.	.	0.035	.	0.006
2	CT X60937	0.72	2.12	0.015	0.075	0.34	0.048	0.088	1.02	.	1.34	.	.	0.034	0.32	0.002
1	14X HS1	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	.
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
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
2	CT X62730	0.70	2.16	0.009	0.077	0.38	0.056	0.085	1.00	.	1.32	.	.	0.020	.	0.010
1	SS 481/1	0.68	0.25	0.023	0.022	0.15	.	(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)
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Ti	V	W	Al
2	IARM 43A	0.68	0.61	0.009	0.034	0.24	0.15	1.34	0.66	0.016	0.20	0.0089	0.003	0.008	(0.016)	0.030
2	14X 14945	0.67	0.72	0.033	0.041	0.26	0.12	0.33	3.97	0.22	0.23	.	.	0.55	16.84	.
2	BS 39B	0.67	0.62	0.009	0.019	0.21	0.16	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)	3.95	0.29	0.40	.	.	1.04	17.8	.
2	14X 14891	0.67	0.23	0.014	0.043	0.43	0.14	1.02	4.83	0.07	4.49	.	.	1.47	7.22	.
1	SS 483/1	0.65	0.22	0.023	0.023	0.16	.	(0.08)	2.90	2.06	0.18	.	.	0.22	9.28	.
2	14X 14944	0.64	0.23	.	.	0.18	0.10	0.18	2.88	0.15	0.14	.	.	1.04	15.34	.
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	.	0.21	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	0.83	0.007	0.20	0.0092	0.010	0.17	(0.016)	0.014
2	IARM 47A	0.58	0.80	0.015	0.010	1.92	0.25	0.23	0.29	0.009	0.41	0.0084	0.008	0.22	(0.016)	0.017
2	BS TS7	0.529	0.70	0.016	0.010	0.27	0.05	0.10	3.18	0.043	1.34	.	.	0.35	0.19	.
2	BS 33D	0.515	0.306	0.016	0.020	0.312	0.040	0.059	1.28	0.045	0.050	.	.	0.221	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	.	.	0.19	2.75	.
2	IARM 46A	0.49	0.48	0.023	0.012	1.31	0.083	0.30	1.31	0.015	0.16	0.0144	0.004	0.16	1.84	0.011
2	CT X67975	0.48	0.56	0.009	0.005	0.28	0.060	0.13	1.00	.	0.53	.	.	0.30	.	.
1	IARM 259A	0.479	0.399	0.020	0.0007	0.44	0.081	0.194	3.27	0.011	1.43	0.0077	0.0026	0.256	0.035	0.016
1	IMZ 57/1	0.46	1.05	0.028	0.012	0.58	0.14	0.15	1.67	.	0.48	.	.	0.34	.	.
1	IARM 46B	0.45	0.27	0.019	0.0040	0.89	0.147	0.108	1.09	0.013	0.222	0.0069	0.007	0.170	1.96	0.011
1	IMZ 53/1	0.41	0.60	0.018	0.011	0.104	0.17	0.28	2.85	.	0.13	.	.	0.28	.	.

TOOL STEEL CONTINUED FROM THE PREVIOUS PAGE

Number	Als	As	B	Ca	Nb	O	Pb	Sb	Sn	Ta	Zr	Units
BS 10V	41 mm Ø x 12 mm
14X HS9	(0.011)	.	.	.	.	.	.	35 mm Ø x 40 mm
ECRM 288-1D	.	(0.0065)	.	.	.	.	.	.	.	.	.	36-41 mm Ø x 28-35 mm
BS 37G	.	0.0026	0.0003	0.0014	0.0026	.	0.0005	0.0009	0.0010	.	.	34 mm Ø x 19 mm
IARM 41C	.	<0.01	0.0002	.	0.01	0.0021	.	.	0.0041	.	<0.005	31 mm Ø x 2 or 18 mm
CT D2	30-35 mm Ø x 20-25 mm
BS 37E	.	0.002	(0.001)	.	(0.003)	(0.0025)	(0.0005)	<0.002	0.003	.	.	41 mm Ø x 13 mm
BS 41A	.	0.002	.	0.0006	.	0.002	.	.	0.002	.	.	38 mm Ø x 19 mm
BS 41	42 mm Ø x 19 mm
BS A-10	40 mm Ø x 12 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 or 18 mm
CT X35568	30-35 mm Ø x 20-25 mm
CT X27081	30-35 mm Ø x 20-25 mm
BS M-47	.	0.006	.	(0.002)	(0.004)	0.0037	.	.	0.006	.	.	38 mm Ø x 12 mm
IMZ 102/3	.	.	(0.0007)	.	.	.	.	.	.	.	(0.007)	40 mm Ø x 40 mm
SS 487/1	.	(0.012)	.	.	.	.	.	.	(0.006)	.	.	38 mm Ø x 19 mm
CT M7	30-35 mm Ø x 20-25 mm
IARM 39B	0.006	.	.	.	0.004	.	.	31 mm Ø x 2 or 18 mm
BS 36D	.	0.002	.	.	.	.	.	.	0.016	.	.	38 mm Ø x 12 mm
CT A2	30-35 mm Ø x 20-25 mm
SS 485/1	.	(0.022)	.	.	.	.	.	.	0.019	.	.	38 mm Ø x 19 mm
CT O1	30-35 mm Ø x 20-25 mm
ECRM 290-1D	36-41 mm Ø x 28-35 mm
CT 834167	30-35 mm Ø x 20-25 mm
14X 14952	40 mm Ø x 15 mm
CT M10	30-35 mm Ø x 20-25 mm
BS 35D	38 mm Ø x 12 mm
14X HS 3	.	0.044	.	.	.	.	0.010	.	0.288	.	.	40 mm Ø x 17 mm
BS 32D	38 mm Ø x 12 mm
14X 14946	40 mm Ø x 15 mm
SRM 1157	32 mm Ø x 19 mm
14X 14948	40 mm Ø x 15 mm
IARM 44C *	.	0.01	.	.	0.012	* Provisional Analysis			0.010	.	.	31 mm Ø x 2 or 18 mm
14X 14892	40 mm Ø x 15 mm
IARM 306A *	(0.004)	.	(0.001)	.	(0.008)	(0.0010)	* Provisional Analysis		(0.005)	.	(0.001)	31 mm Ø x 2 or 18 mm
CT M2	30-35 mm Ø x 20-25 mm
14X 14890	40 mm Ø x 15 mm
CT M1	30-35 mm Ø x 20-25 mm
14X HS2	(0.03)	.	.	40 mm Ø x 15 mm
SS 486/1	.	(0.016)	.	.	.	.	.	.	0.014	.	.	38 mm Ø x 19 mm
IARM 48B	0.004	(0.0125)	.	.	(0.009)	.	.	31 mm Ø x 2 or 18 mm
CT X56839	30-35 mm Ø x 20-25 mm
CT X60937	30-35 mm Ø x 20-25 mm
14X HS1	(0.035)	.	.	40 mm Ø x 15 mm
IARM 43B	.	0.005	0.0002	.	0.004	0.0016	<0.0005	.	0.013	.	.	31 mm Ø x 2 or 18 mm
BS 40B	.	0.004	0.0006	.	.	.	.	.	0.005	.	.	41 mm Ø x 19 mm
CT X62730	30-35 mm Ø x 20-25 mm
SS 481/1	38 mm Ø x 19 mm
IARM 40B	.	.	(0.0010)	.	0.005	(0.0014)	.	.	0.004	.	.	31 mm Ø x 2 or 18 mm
Number	Als	As	B	Ca	Nb	O	Pb	Sb	Sn	Ta	Zr	Units
IARM 43A	.	(0.006)	(0.0002)	.	0.003	(0.0026)	<0.005	.	0.008	.	.	31 mm Ø x 2 or 18 mm
14X 14945	40 mm Ø x 15 mm
BS 39B	41 mm Ø x 12 mm
SS 482/1	38 mm Ø x 19 mm
14X 14891	40 mm Ø x 15 mm
SS 483/1	38 mm Ø x 19 mm
14X 14944	40 mm Ø x 15 mm
BS 38C	0.022	.	0.022	.	.	38 mm Ø x 12 mm
ECRM 179-2D	30 to 35 mm Ø x 20 mm
IARM 47B	.	.	<0.001	.	(0.002)	(0.0014)	(0.0003)	.	0.008	.	.	31 mm Ø x 2 or 18 mm
IARM 47A	.	(0.014)	(0.0003)	.	(0.004)	(0.0021)	<0.005	.	0.031	.	.	31 mm Ø x 2 or 18 mm
BS TS7	38 mm Ø x 12 mm
BS 33D	41 mm Ø x 12 mm
BS 33E	38 mm Ø x 12 mm
IARM 46A	.	(0.009)	(0.0012)	.	0.004	(0.0027)	<0.005	.	0.024	.	.	31 mm Ø x 2 or 18 mm
CT X67975	<0.001	.	0.003	.	.	30-35 mm Ø x 20-25 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
IMZ 57/1	40 mm Ø x 40 mm
IARM 46B	.	(0.01)	0.0003	.	0.003	0.002	<0.002	.	0.016	.	.	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 12 mm
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
IMZ 58/1	40 mm Ø x 40 mm
IMZ 51/1	40 mm Ø x 40 mm
ECRM 276-2D	0.0133	.	.	36-41 mm Ø x 19-41 mm
CT H13	30-35 mm Ø x 20-25 mm
ECRM 271-1D	.	0.0057	.	0.0009	.	0.0020	.	.	0.0084	.	.	35 mm Ø x 25 mm
BS 49	49 mm Ø x 12 mm
BS 9-4-30	35 mm Ø x 12 mm
HRT 500-100	.	(0.005)	.	.	(0.015)	.	.	.	(0.005)	.	.	37 mm Ø x 25 or 50 mm
CT X34865	30-35 mm Ø x 20-25 mm
CKD 189A	0.039	0.080	0.0030	.	0.017	.	0.002	(0.003)	0.029	(0.005)	0.005	44 mm Ø x 13 or 25 mm Fe(90.01)
IMZ 170	0.087	.	.	(0.002)	0.007	.	.	40 mm Ø x 40 mm
NCS HS20741	35 mm Ø x 40 mm
CT V91278	30-35 mm Ø x 20-25 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
SS 422	38 mm Ø x 19 mm
IMZ 101/2	.	.	(0.0005)	.	.	.	.	.	.	.	(0.002)	40 mm Ø x 40 mm
SS 423	38 mm Ø x 19 mm
SS 424	38 mm Ø x 19 mm
NCS HS20743	0.021	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 40 mm
IARM 180A	.	(0.004)	0.0004	.	(0.005)	0.0006	(0.002)	.	0.002	.	.	31 mm Ø x 2 or 18 mm
IARM 164A	.	(0.002)	(0.0001)	.	0.006	0.0005	(0.004)	.	0.002	.	.	31 mm Ø x 2 or 18 mm
IARM 166A	.	(0.004)	(0.0002)	(0.0003)	0.006	0.0006	<0.01	.	(0.003)	.	<0.01	31 mm Ø x 2 or 18 mm
Number	Als	As	B	Ca	Nb	O	Pb	Sb	Sn	Ta	Zr	Units

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	IARM 152B	1.19	7.22	16.94	0.075	0.76	0.0230	0.0019	0.361	0.31	0.17	0.51	0.026	0.033	0.115	0.091
1	IARM 152A	1.18	7.21	16.37	0.075	0.83	0.026	0.001	0.39	0.40	0.11	0.44	0.0277	0.18	0.077	0.12
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	IARM 21C	1.07	8.18	12.39	0.035	0.051	0.007	0.0038	0.042	0.047	0.021	2.11	0.0045	0.007	0.012	0.013
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

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
IARM 152B	.	0.002	.	0.0011	0.0081	<0.003	0.05	.	31 mm Ø x 2 or 18 mm
IARM 152A	.	.	.	(0.0021)	0.008	.	0.051	.	31 mm Ø x 2 or 18 mm
BS 192	(0.005)	(0.0003)	0.0007	0.0014	0.008	(0.001)	0.05	.	38 mm Ø x 12 mm
CT X92834	.	0.0009	.	.	0.002	.	.	<0.001	30-35 mm Ø x x 20-25 mm
IARM 21C	.	0.0004	.	0.0004	0.005	(0.002)	(0.01)	(0.001)	31 mm Ø x 2 or 18 mm
BS 184A	.	(0.0004)	(0.0003)	(0.0003)	(0.002)	.	0.032	.	38 mm Ø x 12 mm
BS 192A	(0.0035)	(0.0003)	(0.0006)	(0.0006)	0.008	.	0.048	.	38 mm Ø x 12 mm

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
2	BS CA316-4	0.0056	11.00	17.60	0.018	1.43	0.028	0.027	0.46	0.42	0.24	2.03	0.045	0.012	0.054	0.06
2	BS CA304-3	0.0047	8.59	18.39	0.038	0.97	0.027	0.024	0.70	0.42	0.22	0.41	0.094	0.020	0.07	0.06
2	BS CA316-2	0.0046	11.21	17.44	0.023	1.54	0.026	0.019	0.46	0.43	0.31	2.08	(0.047)	0.021	0.062	0.074
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
2	BS CA304-2	0.0041	8.63	18.31	0.041	1.07	0.025	0.020	0.69	0.30	0.19	0.50	0.086	0.016	0.08	0.04
1	JK 27A D	0.0033	12.04	16.76	0.0477	1.59	0.022	0.0168	0.411	0.197	0.089	2.53	0.0629	(<0.01)	0.0041	.
2	BS CA316-3	0.0030	11.26	17.49	0.018	1.60	0.027	0.024	0.49	0.43	0.22	2.04	0.058	0.031	0.063	0.050
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 316A	0.0015	10.15	17.25	0.065	1.48	0.029	0.026	0.74	0.35	0.16	2.05	0.045	0.029	0.130	0.10
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
2	BS SS3952	0.0014	10.04	18.06	0.017	0.82	0.029	0.017	0.53	0.38	0.11	0.28	0.017	0.005	0.045	0.023
1	BS 91F	0.0012	0.40	16.34	0.060	0.0174	0.022	0.0071	0.381	0.762	0.167	0.112	0.0558	0.0120	0.071	0.0120
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
2	BS 84J	0.0010	10.34	17.12	0.017	1.46	0.035	0.025	0.57	0.46	0.23	2.08	0.059	0.024	0.09	0.054
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 CA316-4	(0.008)	.	(0.0004)	0.009	.	.	(0.012)	(0.036)	.	37 mm Ø x 12 mm
BS CA304-3	0.003	.	0.0008	0.0049	.	.	0.010	0.024	.	44 mm Ø x 12 mm
BS CA316-2	0.004	.	0.0006	.	.	.	0.013	0.030	.	38 mm Ø x 12 mm
BS CA304-1	0.003	.	0.0006	0.0041	.	.	0.010	0.028	.	38 mm Ø x 12 mm
BS CA304-2	0.004	.	0.0008	0.0044	.	.	0.009	0.032	.	41 mm Ø x 12 mm
JK 27A D	0.0169	.	0.0018	.	0.00016	.	0.0039	.	.	35 mm Ø x 20 mm
BS CA316-3	0.004	.	0.0005	0.0026	.	.	0.010	0.033	.	44 mm Ø x 12 mm
BS 193	(0.003)	.	0.0007	(0.004)	.	.	0.004	0.003	.	32 mm Ø x 12 mm
BS SS4952	0.003	0.002	(0.0004)	0.005	.	.	0.004	0.002	.	38 mm Ø x 12 mm
BS 316A	0.004	.	0.0004	0.0041	.	.	0.008	(0.003)	.	38 mm Ø x 12 mm
BS 82E	0.006	.	0.0024	.	.	.	0.006	0.003	.	38 mm Ø x 12 mm
BS 9942	0.004	(0.004)	0.0014	(0.0023)	.	.	0.006	(0.002)	.	44 mm Ø x 12 mm
BS SS3952	0.004	0.004	(0.0005)	0.005	.	.	0.017	0.002	.	44 mm Ø x 12 mm
BS 91F	0.0029	.	(0.0002)	(0.0076)	.	(0.0017)	0.0054	0.0018	.	38 mm Ø x 19 mm
BS 9842	0.014	(0.002)	0.0025	(0.0044)	.	.	0.005	0.003	.	38 mm Ø x 12 mm
BS 84J	(0.002)	.	0.0005	0.0063	.	.	0.007	(0.002)	.	38 mm Ø x 12 mm
ECRM 272-1D	0.0046	0.0116	0.0018	.	.	0.0007	.	0.00096	0.0031	38 mm Ø x 30 mm
BS 94C	0.004	.	(0.0005)	0.0061	.	.	0.006	.	.	44 mm Ø x 12 mm
BS 82D	(0.002)	.	0.0040	0.007	.	.	0.004	0.005	.	38 mm Ø x 12 mm
BS 87F	0.004	0.005	(0.0006)	0.005	.	.	0.004	0.004	.	41 mm Ø x 12 mm
BS SS3951	0.002	.	(0.0006)	0.0075	.	.	0.007	(0.002)	.	41 mm Ø x 12 mm

COPPER IN STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM and 2 = RM

Table with 17 columns: #, Number, Cu, Ni, Cr, C, Mn, P, S, Si, Co, Mo, N, Nb, Ti, V, W. Rows list various steel grades and their chemical compositions.

* Provisional Analysis

Table with 16 columns: Number, Al, Ag, As, B, Ca, Cd, Fe, Mg, O, Pb, Sb, Sn, Ta, Units. Rows list various steel grades and their provisional analysis results.

MARAGING STEEL AND COBALT IN STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM and 2 = RM

#	Number	Co	Mo	Ni	Cr	C	Mn	P	S	Si	Cu	Al	B	N	Nb	Ti
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	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
2	CT ISO098A	14.46	0.021	37.53	0.099	0.025	0.037	0.003	<0.0005	0.39	0.026	0.050	0.0065	.	5.06	1.54
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
2	13X 14933	11.4	3.83	16.8	0.022	0.008	0.17	0.023	0.014	0.05	.	<0.005	.	.	.	0.029
1	IARM 99B	9.24	4.88	18.46	0.081	0.005	0.036	0.005	0.0005	0.022	0.094	0.095	0.0026	0.0011	(0.005)	0.74
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 14934	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	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 14935	7.17	5.61	18.96	0.745	0.0105	0.494	0.036	0.055	0.441	.	(0.007)	.	0.0102	.	0.106
2	13X 14935 S *	7.05	5.40	18.93	0.26	0.03	0.32	0.040	0.052	0.31	.	0.26	.	.	.	0.94
2	BS 85D	0.97	0.59	10.03	17.09	0.049	1.69	0.025	0.024	0.55	0.45	0.13	0.0006	0.016	0.065	0.48

Number	As	Ca	Fe	Mg	O	Sb	Sn	Ta	V	W	Zr	Units
CT ISO070A	.	.	34.66	.	.	.	.	<0.01	0.043	<0.01	.	30-35 mm Ø x 20-25 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 or 18 mm
CT ISO098A	.	.	40.71	.	.	0.0003	0.0011	<0.01	0.002	<0.01	.	30-35 mm Ø x 20-25 mm
IARM 242A	0.0006	.	(0.001)	0.008	0.01	<0.01	.	31 mm Ø x 2 or 18 mm
CT ISO045A	.	.	70.70	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
IARM 309A	0.0005	.	(0.001)	(0.006)	0.01	0.01	0.008	31 mm Ø x 2 or 18 mm
13X 14933	40 mm Ø x 15 mm
IARM 99B	0.0015	.	(0.003)	.	0.012	0.016	.	31 mm Ø x 2 or 18 mm
BS 161A	(0.002)	(0.0008)	.	.	(0.0004)	.	(0.0015)	(0.03)	0.031	(0.008)	(0.002)	38 mm Ø x 12 mm
CT 300	30-35 mm Ø x 20-25 mm
13X 14934	40 mm Ø x 15 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 30 or 25 mm
CT 250	30-35 mm Ø x 20-25 mm
13X 14935	40 mm Ø x 15 mm
13X 14935 S *	*	last of stock	.	40 mm Ø x 15 mm
BS 85D	0.006	0.0004	.	.	0.0014	0.001	(0.006)	.	0.134	0.06	.	38 mm Ø x 12 mm

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
2	13X 14219	4.07	12.39	21.71	0.08	0.48	0.047	0.048	1.48	0.23	.	0.19	.	0.19	.	.
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 14212	3.32	10.33	20.90	0.069	0.66	0.058	0.041	2.50	5.56	0.241	0.540	0.121	0.612	(0.018)	0.152
2	13X 14207	3.05	12.48	19.97	0.06	1.04	0.011	0.011	1.55	0.24	0.01	0.23	.	0.26	.	.
1	13X 14215	2.89	15.70	23.8	0.126	1.08	0.016	0.016	0.56	0.03	0.016	0.046	.	(0.016)	0.08	0.06
2	13X 14211	2.80	12.8	25.7	0.112	0.65	0.016	0.018	1.75	0.28	0.056	0.31	.	0.15	.	.
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	13X 14216	2.00	12.61	22.03	0.089	0.748	0.026	0.034	1.54	0.210	0.232	0.228	0.142	0.27	(0.005)	0.040
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	Cd	O	Sb	Sn	Units
13X 14219	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
IARM 20B	0.006	.	.	.	.	0.0056	.	0.005	31 mm Ø x 2 or 18 mm
13X 14212	(0.013)	.	.	.	.	0.0015	.	.	43 mm Ø x 20 mm
13X 14207	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
13X 14215	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
13X 14211	.	.	.	.	.	.	.	.	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 12 mm
IARM 20C	(0.004)	.	.	.	.	0.0068	.	0.004	31 mm Ø x 2 or 18 mm
13X 14216	(0.004)	.	.	.	.	.	.	.	43 mm Ø x 15 mm
IMZ 161	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm

MANGANESE STAINLESS STEEL

= Class, where 1 = CRM and 2 = RM

#	Number	Mn	Ni	Cr	C	P	S	Si	Cu	Mo	Al	Co	N	Nb	V	W
1	13X NSD1	23.53	0.114	24.51	0.046	0.019	0.009	0.411	0.042	1.12	(0.013)	0.128	0.88	0.030	.	0.057
1	IARM 294A	21.6	2.9	19.7	0.017	0.026	0.0028	0.43	0.34	1.8	(0.01)	0.021	0.78	(0.03)	0.046	(0.01)
1	IARM 295A	19.7	1.84	18.0	0.021	0.028	0.0041	0.36	0.113	0.97	(0.01)	0.021	0.62	0.018	0.046	0.016
1	ECRM 294-1D	18.68	0.429	17.98	0.0657	0.0271	0.00031	0.283	0.0242	0.0861	(0.0095)	0.0288	0.566	(0.00117)	0.0694	(0.00114)
1	13X NSC3	18.3	2.33	12.36	0.018	0.033	0.002	1.00	0.36	0.44	(0.002)	0.021	0.27	0.23	0.04	0.02
2	BS 193	12.11	1.82	18.48	0.104	0.018	0.002	0.66	0.088	0.21	(0.003)	0.028	0.37	0.014	0.107	(0.007)
2	CT ISO035A	12.04	1.81	18.48	0.102	0.023	0.002	0.59	0.17	0.28	<0.004	0.037	0.33	0.004	0.058	0.002
1	13X NSC4	10.97	3.03	24.71	1.492	.	0.0098	1.89	0.114	0.086	(0.028)	.	0.478	2.47	0.126	.
1	IARM 296A	10.6	1.71	11.2	0.074	0.027	0.002	0.38	0.12	0.60	(0.005)	0.018	0.23	0.043	0.056	(0.01)
2	BS 190	9.72	6.74	19.57	0.022	0.015	0.001	0.46	0.072	0.15	(0.004)	0.044	0.255	(0.004)	0.11	0.015
2	CT ISO129A	9.31	6.86	19.62	0.030	0.002	<0.001	0.40	0.152	0.25	0.014	0.102	0.264	0.025	0.144	0.03
1	IARM 19B	9.31	6.83	19.98	0.021	0.021	0.0020	0.48	0.174	0.275	0.01	0.098	0.25	0.057	0.102	0.022
1	SRM 1233	9.16	3.43	21.08	0.502	0.031	0.002	0.219	0.375	0.237	(0.001)	(0.05)	.	(0.01)	0.096	(0.01)
1	13X NSC4	8.98	6.94	31.88	0.559	.	0.0100	1.65	0.197	1.28	(0.029)	0.215	0.896	3.15	0.197	0.192
1	13X NSC6	8.85	6.52	20.47	0.0266	0.0049	0.0055	0.523	0.0064	(0.002)	(0.009)	.	0.235	.	0.0052	.
1	13X NSC2	8.36	4.00	20.14	0.570	.	0.0233	1.20	1.040	0.782	(0.011)	.	0.269	2.25	0.293	.
2	BS 181A	8.16	8.15	16.52	0.071	0.019	0.001	4.03	0.18	0.21	0.022	0.072	0.148	0.017	0.094	0.04
1	IARM 18C	7.69	8.05	16.19	0.087	0.027	0.0010	3.8	0.285	0.354	0.0142	0.060	0.152	0.090	0.099	0.05
1	13X NSC1	7.49	5.49	17.57	0.350	.	0.0197	0.90	0.382	0.251	(0.010)	.	0.100	1.62	0.554	.
1	SRM 1297	7.11	5.34	16.69	0.066	0.038	0.0033	0.397	0.442	0.331	.	0.127	.	.	0.080	.
2	BS 203MN	5.99	5.50	16.75	0.048	0.026	0.30	0.46	1.88	0.18	(0.001)	0.06	0.032	(0.004)	0.054	0.03
2	BS 191	5.71	5.34	16.33	0.098	0.024	0.023	3.66	0.33	0.36	(0.002)	0.11	0.117	0.024	0.083	0.033
1	13X NSA4	5.59	17.11	23.79	0.0262	0.0281	0.0130	0.44	0.487	4.19	(0.016)	.	0.532	0.079	.	.
2	BS 180A	5.05	13.19	21.09	0.018	0.012	0.001	0.32	0.067	2.04	0.012	0.039	0.334	0.20	0.20	0.02
1	IARM 17C	5.0	11.99	21.03	0.033	0.022	0.0042	0.47	0.38	2.10	0.01	0.057	0.265	0.139	0.183	0.029
1	IARM 292A	5.0	1.47	21.35	0.030	0.018	0.001	0.75	0.29	0.097	0.010	0.031	0.245	0.009	0.084	0.01
1	13X NSA5	4.27	9.52	20.73	0.063	(0.010)	0.0212	2.81	0.098	2.32	(0.012)	.	0.340	0.574	.	.

Number	As	B	Ca	O	Pb	Sb	Sn	Ta	Te	Ti	Zr	Units
13X NSD1	40 mm Ø x 15 mm
IARM 294A	.	(0.003)	.	(0.003)	.	.	(0.006)	(0.003)	.	(0.002)	(0.002)	31 mm Ø x 2 or 18 mm
IARM 295A	.	0.002	.	(0.003)	.	.	0.004	.	.	0.0019	(0.001)	31 mm Ø x 2 or 18 mm
ECRM 294-1D	0.0037	(<0.00005)	(0.00026)	.	(0.000128)	(0.00053)	(0.0014)	.	(<0.00008)	(0.0008)	(0.0001)	40 mm Ø x 30 mm
IARM 214A	.	(0.001)	.	0.0026	.	.	0.008	.	.	0.002	.	31 mm Ø x 2 or 18 mm
BS 193	.	0.0007	0.0020	(0.004)	.	.	0.004	.	.	0.003	.	32 mm Ø x 12 mm
CT ISO035A	.	.	Fe: 65.91	.	(<0.0001)	.	0.003	.	.	0.001	<0.001	30-35 mm Ø x 20-25 mm
13X NSC3	40 mm Ø x ~15 mm
IARM 296A	.	(0.001)	.	(0.003)	.	.	0.007	.	.	(0.002)	.	31 mm Ø x 2 or 18 mm
BS 190	.	0.0005	.	0.0045	.	.	0.003	.	.	0.002	.	38 mm Ø x 12 mm
CT ISO129A	.	.	Fe: 62.62	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
IARM 19B	.	(0.001)	.	0.0061	.	.	0.005	.	.	0.006	.	31 mm Ø x 2 or 18 mm
SRM 1233	.	(<0.001)	.	.	.	.	(0.008)	.	.	(<0.001)	.	35 mm Ø x 19 mm
13X NSC4	40 mm Ø x 17 mm
13X NSC6	40 mm Ø x 13 mm HIP
13X NSC2	40 mm Ø x ~17 mm
BS 181A	.	0.0009	.	0.0010	.	.	0.005	.	.	0.007	.	38 mm Ø x 12 mm
IARM 18C	.	0.0014	(0.002)	0.0018	.	.	0.004	(0.004)	.	0.013	.	31 mm Ø x 2 or 18 mm
13X NSC1	40 mm Ø x ~17 mm
SRM 1297	32 mm Ø x 19 mm
BS 203MN	.	(0.0010)	.	.	.	.	0.007	.	.	(0.002)	.	38 mm Ø x 12 mm
BS 191	.	(0.0006)	.	0.002	.	.	(0.006)	0.002	.	0.012	.	38 mm Ø x 12 mm
13X NSA4	40 mm Ø x 17 mm
BS 180A	.	(0.0023)	.	0.003	.	.	(0.002)	.	.	(0.002)	.	37 mm Ø x 12 mm
IARM 17C	.	0.003	.	0.0035	.	.	0.006	<0.01	.	<0.005	.	31 mm Ø x 2 or 18 mm
IARM 292A	.	0.0011	.	0.0024	.	.	0.004	(0.006)	.	0.005	.	31 mm Ø x 2 or 18 mm
13X NSA5	40 mm Ø x 17 mm

SULFUR AND PHOSPHORUS IN STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM and 2 = RM

#	Number	S	P	Ni	Cr	C	Mn	Si	Cu	Al	Co	Mo	N	Nb	Ti	V
1	IARM 1C	0.378	0.032	8.64	17.35	0.068	1.87	0.634	0.51	0.002	0.309	0.583	0.0344	0.056	0.002	0.107
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
2	BS 80F	0.35	0.036	8.58	17.10	0.062	1.76	0.63	0.41	0.001	0.16	0.48	0.035	0.016	.	0.087
1	IARM 1D	0.34	0.025	9.50	18.24	0.061	1.98	0.22	0.51	.	0.208	0.130	0.027	<0.005	(0.002)	0.101
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	IRSID 1823	0.320	0.024	0.240	16.9	0.090	0.99	0.275	0.093	(0.004)	(0.026)	0.219	.	.	.	0.079
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
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	BS 203MN	0.30	0.026	5.50	16.75	0.048	5.99	0.46	1.88	(0.001)	0.06	0.18	0.032	(0.004)	(0.002)	0.054
2	13X 12549	0.29	0.092	1.26	11.70	0.16	0.34	0.43	0.10	.	0.52	1.49	.	0.23	.	.
1	IARM 10C	0.29	0.026	0.24	12.25	0.128	0.35	0.37	0.155	0.003	0.022	0.08	0.015	0.003	0.002	0.024
2	BS 153	0.28	0.018	0.14	17.38	0.026	0.41	0.53	0.052	(0.002)	0.017	0.30	0.021	(0.002)	.	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
2	13X 12548	0.224	0.027	1.12	12.91	0.18	0.75	0.32	0.26	.	0.37	1.30	.	0.56	.	.
2	CT 831991	0.20	0.018	0.28	17.34	1.00	0.50	0.40	0.084	.	.	0.50	.	.	.	.
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
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
2	13X 12536	0.13	0.053	11.9	14.8	0.165	0.47	0.65	0.048	0.11	0.09	2.53	.	.	0.47	.
1	13X 12547	0.110	0.062	0.58	16.43	0.335	1.16	0.246	0.544	.	0.313	0.741	0.0511	0.349	.	0.098
1	13X 8110 L	0.0943	0.047	4.16	12.11	0.697	0.650	0.788	0.223	(0.004)	0.314	2.71	0.0200	.	0.031	0.220
1	13X 12535	0.069	0.072	14.73	16.89	0.276	0.495	1.31	0.086	0.267	0.711	3.91	0.0550	.	1.18	0.090
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 12537	0.048	0.092	11.10	19.32	0.090	1.174	1.18	0.659	(0.011)	0.114	3.12	0.043	.	0.053	.
2	13X 19004	0.014	0.069	17.9	22.8	0.066	1.96	0.36	0.022	.	.	3.62	.	0.18	.	.
2	13X 18004	0.012	0.094	12.55	21.64	0.07	2.1	1.44	0.04	.	0.18	0.63	.	0.83	.	.

Number	Ag	As	B	O	Pb	Sn	Ta	W	Units
IARM 1C	.	.	(0.0004)	0.0049	.	0.010	.	0.057	31 mm Ø x 2 or 18 mm
CT 416	0.0002	.	.	.	<0.001	0.005	.	.	30-35 mm Ø x 20-25 mm
BS 80F	.	.	0.0012	0.0058	.	0.010	.	0.047	41 mm Ø x 12 mm
IARM 1D	.	.	<0.002	0.007	.	0.006	.	0.015	31 mm Ø x 2 or 18 mm
BS 150	.	.	.	0.012	.	(0.003)	.	0.01	35 mm Ø x 12 mm
SRM 1223	32 mm Ø x 19 mm
BS 90F	.	.	.	0.011	.	0.005	.	0.032	38 mm Ø x 12 mm
IRSID 1823	.	.	(0.0003)	.	.	(0.006)	.	.	34 mm Ø x 27 mm
CT 303	0.0003	.	.	.	0.001	0.007	.	.	30-35 mm Ø x 20-25 mm
BS 154	.	.	.	0.008	.	(0.005)	.	(0.01)	38 mm Ø x 12 mm
BS 203MN	.	.	(0.0010)	.	.	0.007	.	0.03	38 mm Ø x 12 mm
13X 12549	40 mm Ø x 15 mm
IARM 10C	.	.	<0.0005	0.008	.	0.009	.	0.011	31 mm Ø x 2 or 18 mm
BS 153	0.002	.	(0.002)	35 mm Ø x 12 mm
BS 152	0.003	.	<0.01	41 mm Ø x 12 mm
13X 12548	40 mm Ø x 15 mm
CT 831991	30-35 mm Ø x 20-25 mm
IMZ 154	40 mm Ø x 40 mm
BS 155	.	.	.	0.0048	.	(0.003)	.	.	36 mm Ø x 12 mm
13X 12536	.	0.022	.	.	.	0.018	0.15	.	40 mm Ø x 15 mm
13X 12547	0.0232	.	.	42 mm Ø x 15 mm
13X 8110 L	.	0.072	1.07	.	.	.	.	.	40 mm Ø x ~15 mm
13X 12535	.	.	0.0135	.	.	0.0182	.	.	40 mm Ø x 15 mm
SRM C1154a	0.017	.	.	.	32 mm Ø x 19 mm
13X 12537	.	.	0.007	.	.	0.049	.	.	40 mm Ø x ~17 mm
13X 19004	40 mm Ø x 15 mm
13X 18004	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	0.005	0.19	0.016	(0.001)	0.028	0.003	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
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

Number	B	Fe	O	Sn	Ta	V	W	Zr	Units
BS 151	.	.	0.009	0.005	.	0.046	0.010	.	50 mm Ø x 12 mm
BS 186A	.	.	.	(0.002)	.	0.001	<0.03	.	38 mm Ø x 12 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
CT ISO124A	.	50.65	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
BS 156	.	.	0.0045	(0.004)	.	0.13	0.11	.	41 mm Ø x 12 mm

STAINLESS STEEL WITH NI < 5.0 %

CONTINUED ON THE NEXT PAGE

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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
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	IARM 13C	1.02	0.43	0.017	0.001	0.69	0.031	0.108	16.84	0.021	0.455	0.0188	0.004	0.005	0.10	<0.005
2	BS 155	1.00	0.35	0.014	0.003	0.145	0.40	0.035	16.64	0.019	0.46	0.032	0.002	.	0.10	.
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	13X 8110 L	0.697	0.650	0.047	0.0943	0.788	0.223	4.16	12.11	0.314	2.71	0.0200	.	0.031	0.220	.
1	13X NSC5	0.493	2.49	.	0.0095	1.16	0.745	4.16	22.47	.	0.002	0.257	2.31	.	0.026	.
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	13X 12547	0.335	1.16	0.062	0.110	0.246	0.544	0.58	16.43	0.313	0.741	0.0511	0.349	.	0.098	.
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	IRSID 1825	0.305	0.650	0.019	0.022	0.336	0.100	0.308	12.90	0.026	0.052	.	.	.	0.052	.
2	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	0.002	0.075	0.009
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	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	IARM 205C	0.231	0.74	0.017	0.0034	0.39	0.109	0.68	12.14	0.058	1.00	0.040	0.010	(0.002)	0.21	1.03
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	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	SS 70	0.18	0.38	0.024	0.020	0.35	(0.06)	0.40	16.35	.	.	.	.	.	.	.
2	13X 12548	0.18	0.75	0.027	0.224	0.32	0.26	1.12	12.91	0.37	1.30	.	0.56	.	0.086	.
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)	0.17	2.59
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	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	IARM 12B	0.174	0.6	0.016	0.003	0.56	0.143	2.15	16.02	0.018	0.057	0.061	0.011	0.003	0.037	0.014
1	SS 473	0.172	0.494	0.019	0.030	0.604	(0.02)	(0.06)	9.06	(0.01)	0.95	.	.	.	(0.02)	.
2	BS 183A	0.172	0.35	0.016	0.0040	0.37	0.093	1.85	12.14	0.036	0.12	0.0256	0.006	0.002	0.090	2.60
2	CT 836361	0.163	0.58	0.022	0.018	0.50	0.10	1.73	15.86	.	0.070	0.050	.	.	.	.
2	CT X64950	0.161	0.41	0.014	0.009	0.44	0.098	2.04	15.36	.	0.038	0.062	.	.	.	.
2	13X 12549	0.16	0.34	0.092	0.29	0.43	0.10	1.26	11.70	0.52	1.49	.	0.23	.	.	.
1	SS 470	0.153	0.235	0.024	0.035	0.335	(0.02)	0.369	17.68	(0.02)	.	.	.	.	(0.02)	.
2	CT X64421	0.158	0.42	0.009	0.001	0.42	0.038	0.26	12.02	.	0.021	0.024	0.094	.	.	.
2	CT X68882	0.154	0.46	0.014	0.002	0.35	0.062	0.08	11.84	.	0.011	0.026	0.10	.	.	.
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	0.026	0.001	0.545	0.162	2.16	15.64	.	0.164	0.078	.	.	.	0.056
2	CT X64417	0.148	0.44	0.013	0.002	0.34	0.046	0.20	12.14	.	0.016	0.022	0.086	.	.	.
2	CT X66887	0.147	0.51	0.016	0.007	0.36	0.074	0.22	11.86	.	0.008	0.028	0.12	.	.	.
2	CT X68890	0.147	0.48	0.015	0.007	0.35	0.064	0.10	11.87	.	0.009	0.030	0.10	.	.	.
2	BS 410A	0.134	0.46	0.017	0.0010	0.37	0.027	0.23	13.17	(0.011)	0.207	0.036	.	.	0.021	.
2	BS 410B	0.131	0.38	0.018	0.003	0.30	0.090	0.26	11.58	(0.021)	0.077	0.020	.	.	0.038	.
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	.
2	13X PH5	0.122	0.98	0.065	0.015	1.03	4.42	4.51	17.85	.	0.51	0.046	0.58	.	.	.
1	IARM 9C	0.122	0.38	0.021	0.029	0.35	0.063	0.33	12.04	0.038	0.192	0.019	0.005	0.002	0.080	0.073
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
2	13X 15023	0.12	1.43	0.013	0.012	0.19	0.06	0.78	10.75	0.05	1.49	.	1.20	.	.	.
2	13X 15024	0.12	0.57	0.030	0.028	0.77	0.36	2.84	14.84	0.10	0.24	.	0.10	.	.	.
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	.
2	CT X53736	0.116	0.44	0.016	0.004	0.32	0.047	0.38	12.38	.	0.070	.	.	.	0.026	.
2	CT X23576	0.116	0.40	0.018	0.027	0.40	0.072	0.26	12.30	.	0.062	0.032	.	.	.	.
1	13X PH2	0.111	1.140	0.027	0.0251	0.690	4.08	3.67	16.77	0.116	0.500	0.107	0.336	0.083	0.119	.
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	.
2	13X 15035	0.10	0.93	0.054	0.069	0.68	0.31	2.66	13.94	0.21	0.45	.	0.63	.	.	.
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	.
1	IRSID 1823	0.090	0.99	0.024	0.320	0.275	0.093	0.240	16.9	(0.026)	0.219	.	.	.	0.079	.
2	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	(0.003)	0.046	0.010
2	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
1	IMZ 155	0.078	0.84	0.018	0.012	0.49	0.084	0.77	11.07	.	0.056	.	.	0.19	0.045	(0.095)
1	IMZ 161	0.074	0.29	0.023	0.023	0.65	0.56	0.55	12.90	.	1.10	.	.	.	0.33	1.05
1	BS 91F	0.060	0.0174	0.022	0.0071	0.381	0.762	0.40	16.34	0.167	0.112	0.0558	0.0120	0.0018	0.071	0.0120
1	IMZ 163	0.058	1.38	0.018	0.010	0.39	0.061	4.59	22.62	(0.020)	2.40	0.221	0.13	(0.002)	0.029	(0.016)
1	13X 15059	0.057	1.22	0.015	0.020	0.48	0.14	1.30	15.97	0.26	0.63	0.049	0.8	.	0.06	.
2	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	.
1	IARM 11C	0.055	0.52	0.018	0.0030	0.51	0.070	0.219	17.66	0.017	0.055	0.029	0.005	<0.003	0.031	<0.005
1	BS 0022	0.050	0.41	0.018	0.011	0.62	0.036	0.23	12.36	0.017	0.117	0.033	0.007	0.002	0.034	(0.008)
2	13X 14775	0.05	1.37	0.053	0.054	0.63	0.21	1.75	17.7	0.15	0.47	.	0.75	.	.	.
2	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
2	CT 816960	0.045	0.55	0.018	0.012	0.52	.	0.22	18.20	.	.	.	.	0.44	.	.
1	IARM 22B	0.045	0.53	0.022	0.001	0.41	3.25	4.81	14.29	0.08	0.35	0.012	0.301	0.003	0.054	0.028
2	BS 17-4PHB	0.042	0.56	0.021	0.024	3.42	3.35	4.53	15.60	0.040	0.11	0.046	0.31	.	0.059	.
2	CT X67514	0.040	0.56	0.014	0.008	0.44	0.048	0.19	18.34	.	0.015	0.020	.	0.39	.	.
1	SRM C1296	0.038	0.256	0.024	0.013	0.66	0.056	0.373	27.90	0.026	3.43	.	0.20	0.23	0.134	.
1	SRM C2400	0.036	0.71	0.013	0.003	0.61	2.63	4.07	17.06	0.10	0.23	.	0.15	.	0.092	.
2	HRT FE2009-H	0.035	0.78	0.034	0.003	0.35	0.08	3.89	12.83	.	0.42	.	.	.	0.043	0.058
2	BS 9621	0.035	0.31	0.017	0.0											

STAINLESS STEEL WITH NI < 5.0 %

CONTINUED FROM THE PREVIOUS PAGE

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

Number	Al	As	B	Ca*	Mg*	Pb*	O	Sb	Se	Sn	Ta	Zn	Zr	Units
BS 156	<0.002	.	.	.	.	.	0.0045	.	0.142	(0.004)	.	.	.	41 mm Ø x 12 mm
IARM 13C	0.003	.	<0.0005	.	.	.	0.0029	.	.	(0.004)	<0.01	.	<0.002	31 mm Ø x 2 or 18 mm
BS 155	(0.001)	.	.	.	.	.	0.0048	.	.	(0.003)	.	.	.	36 mm Ø x 12 mm
ECRM 291-1D	.	.	.	.	.	.	.	.	.	.	.	.	.	36-41 mm Ø x 28-35 mm
13X 8110 L	(0.004)	0.072	1.07	.	.	.	.	.	.	.	.	.	.	40 mm Ø x -15 mm
13X NSC5	0.315	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 17 mm
IARM 154B	0.002	.	(0.001)	.	.	.	0.0016	.	.	0.006	.	.	.	31 mm Ø x 2 or 18 mm
BS SS4952	0.003	0.002	(0.0004)	19.	.	.	0.005	.	.	0.004	.	.	.	38 mm Ø x 12 mm
13X 12547	.	.	.	.	.	.	.	.	.	0.0232	.	.	.	42 mm Ø x 15 mm
BS SS4951	0.002	0.002	.	.	.	.	0.0055	.	.	0.003	.	.	.	42 mm Ø x 12 mm
BS 152	(0.002)	.	.	.	.	.	.	.	.	0.003	.	.	.	41 mm Ø x 12 mm
IRSID 1825	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 30 mm
BS 98	0.003	.	.	.	.	.	0.0038	.	.	0.006	.	.	.	38 mm Ø x 12 mm
ECRM 272-1D	0.0046	0.0116	0.0018	9.0	(2)	.	.	0.0007	.	.	.	0.0031	.	38 mm Ø x 30 mm
SS 469	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm
IMZ 168	(0.004)	.	.	.	.	.	.	.	.	0.009	.	.	.	40 mm Ø x 40 mm
IARM 205C	(0.003)	0.004	0.0003	.	.	.	0.0041	.	.	0.004	.	.	(0.002)	31 mm Ø x 2 or 18 mm
SS 472	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm
IMZ 171	0.036	.	.	.	.	.	.	(0.003)	.	0.008	.	.	.	40 mm Ø x 40 mm
SS 70	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm
13X 12548	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
IARM 20C	(0.004)	.	.	.	.	.	0.0068	.	.	0.004	.	.	.	31 mm Ø x 2 or 18 mm
IARM 20B	0.006	.	.	.	.	.	0.0056	.	.	0.005	.	.	.	31 mm Ø x 2 or 18 mm
IMZ 167	(0.018)	.	.	.	.	.	.	.	.	0.009	.	.	.	40 mm Ø x 40 mm
IARM 12B	(0.003)	.	(0.0003)	.	.	.	0.0101	.	.	0.006	.	.	.	31 mm Ø x 2 or 18 mm
SS 473	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm
BS 183A	0.002	(0.002)	<0.0005	20	.	.	0.0065	(0.001)	.	0.003	.	.	.	38 mm Ø x 12 mm
CT 836361	.	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
CT X64950	.	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
13X 12549	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
SS 470	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm
CT X64421	<0.004	.	<0.0005	.	.	.	.	.	.	0.002	.	.	.	30-35 mm Ø x 20-25 mm
CT X68882	<0.004	.	.	.	.	.	.	.	.	0.004	.	.	.	30-35 mm Ø x 20-25 mm
BS 92B	(0.002)	.	.	(9)	.	.	0.0064	.	.	0.006	.	.	.	44 mm Ø x 12 mm
SRM 1219	.	.	.	.	.	.	.	.	.	.	.	.	.	34 mm Ø x 19 mm
CT X64417	<0.004	.	<0.0005	.	.	.	.	.	.	0.003	.	.	.	30-35 mm Ø x 20-25 mm
CT X66887	<0.004	.	.	.	.	.	.	.	.	0.004	.	.	.	30-35 mm Ø x 20-25 mm
CT X68890	<0.004	.	.	.	.	.	.	.	.	0.004	.	.	.	30-35 mm Ø x 20-25 mm
BS 410A	(0.003)	.	.	.	.	.	0.0059	.	.	(0.004)	.	.	.	37 mm Ø x 12 mm
BS 410B	.	.	.	.	.	.	0.005	.	.	.	.	.	.	37 mm Ø x 12 mm
BS 0021	0.008	(0.004)	<0.0002	(2)	.	.	(0.004)	.	.	0.003	.	.	.	40 mm Ø x 12 mm
IARM 10C	0.003	.	<0.0005	.	.	.	0.008	.	.	0.009	.	.	.	31 mm Ø x 2 or 18 mm
SRM 1223	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
13X PH5	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
IARM 9C	0.014	.	(0.0003)	.	.	.	0.0039	.	.	0.002	.	.	(0.001)	31 mm Ø x 2 or 18 mm
last														
Number	Al	As	B	Ca*	Mg*	Pb*	O	Sb	Se	Sn	Ta	Zn	Zr	Units
13X 15023	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
13X 15024	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
ECRM 296-1D	0.0275	0.0139	(0.0003)	.	.	1.6	.	.	.	0.0131	.	.	.	38 mm Ø x 30 or 25 mm
CT X53736	0.004	.	.	.	.	.	.	.	.	0.003	.	.	.	30-35 mm Ø x 20-25 mm
CT X23576	.	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
13X PH2	0.051	.	0.0061	.	.	.	.	.	.	.	.	.	.	40 mm Ø x -17 mm
IARM 291A	(0.004)	.	0.001	.	.	.	0.014	.	.	0.004	(0.001)	.	<0.005	31 mm Ø x 2 or 18 mm
CT 410	0.015	.	.	.	.	.	<10	.	.	0.006	.	.	.	30-35 mm Ø x 20-25 mm Ag: 2 ppm
IMZ 156	(0.034)	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
13X 15035	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
SS 471	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm
IMZ 158	1.56	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
IRSID 1823	(0.004)	.	(0.0003)	.	.	.	.	.	.	(0.006)	.	.	.	34 mm Ø x 27 mm
BS 151	(0.002)	.	.	.	.	.	0.009	.	0.328	0.005	.	.	.	50 mm Ø x 12 mm
BS 90F	(0.006)	.	.	.	.	.	0.011	.	.	0.005	.	.	.	38 mm Ø x 12 mm
IMZ 155	(0.20)	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
IMZ 161	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
BS 91F	0.0029	.	(0.0002)	12	.	.	(0.0076)	(0.0017)	.	0.0054	.	.	.	38 mm Ø x 19 mm
IMZ 163	0.018	(0.0035)	.	.	.	(10)	.	.	.	(0.003)	.	.	.	40 mm Ø x 40 mm
13X 15059	.	.	.	.	.	.	.	.	.	(0.02)	.	.	.	40 mm Ø x 15 mm
BS 94C	0.004	.	.	8	.	.	0.0061	.	.	0.006	.	.	.	44 mm Ø x 12 mm
IARM 11C	0.010	.	<0.0005	.	.	.	0.004	.	.	0.01	<0.01	.	<0.0005	38 mm Ø x 2 or 18 mm
BS 0022	0.078	0.003	0.0007	.	<5	(6)	(0.002)	(0.0004)	.	0.004	.	<0.002	<0.003	38 mm Ø x 12 mm
13X 14775	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
BS 150	0.002	.	.	.	.	.	0.012	.	.	(0.003)	.	.	.	35 mm Ø x 12 mm
CT 816960	.	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
IARM 22B	0.004	.	(0.0007)	.	.	.	0.001	.	.	0.010	.	.	.	31 mm Ø x 2 or 18 mm
BS 17-4PHB	.	.	0.0036	.	.	.	.	.	.	.	(0.002)	.	.	40 mm Ø x 12 mm
CT X67514	0.036	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
SRM C1296	0.035	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
SRM C2400	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
HRT FE2009-H	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm CA6NM
BS 9621	0.003	.	0.0004	(1)	.	.	.	.	.	0.003	(0.002)	.	.	38 mm Ø x 12 mm
13X PH 4	.	.	(0.0037)	.	.	.	.	.	.	.	(0.049)	.	.	40 mm Ø x -17 mm
IARM 23C	0.004	.	0.001	.	.	.	0.007	.	.	0.0081	<0.01	.	.	31 mm Ø x 2 or 18 mm
ECRM 273-1	.	0.0030	.	.	.	.	.	.	.	0.0021	.	.	.	40 mm Ø x 20 mm
BS 185A	0.002	.	0.0017	(2)	.	.	(0.0021)	.	.	0.007	(0.002)	.	.	38 mm Ø x 12 mm
BS 9622	0.002	.	0.0004	.	.	.	.	.	.	0.006	.	.	.	38 mm Ø x 12 mm
BS 154	(0.002)	.	.	.	.	.	0.008	.	.	(0.005)	.	.	.	38 mm Ø x 12 mm
13X 12533	0.011	.	(0.01)	.	.	.	.	.	.	(0.03)	(0.17)	.	.	40 mm Ø x 15 mm
SRM 1295	(0.20)	(0.006)	<0.0004	.	.	(1)	.	(0.003)	<1*	(0.02)	<0.001	.	.	32 mm Ø x 19 mm
BS 153	(0.002)	.	.	.	.	.	.	.	.	0.002	.	.	.	35 mm Ø x 12 mm
BS 17-4PHA	.	.	0.0016	.	.	.	.	.	.	.	(0.002)	.	.	36 mm Ø x 12 mm
IARM 327A *	(0.002)	.	0.0010	.	.	.	0.005	0.006	.	.	* Provisional Analysis			31 mm Ø x 2 or 18 mm
IARM 14B	0.004	.	(0.0004)	.	.	.	0.0054	.	.	0.005	.	.	.	31 mm Ø x 2 or 18 mm
Number	Al	As	B	Ca*	Mg*	Pb*	O	Sb	Se	Sn	Ta	Zn	Zr	Units

STAINLESS STEEL WITH C > 0.05 % CONTINUED ON THE NEXT PAGE

= Class, where 1 = CRM and 2 = RM

#	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	KUT H2	0.42	0.91	0.020	(0.003)	0.42	0.35	0.31	15.00	.	.	.	.	(0.05)	.	0.50
1	KUT S21	0.37	0.19	0.017	0.021	1.26	0.11	22.3	3.99	.	4.12	.	.	0.50	.	.
1	KUT H6/1	0.20	0.49	0.021	0.024	0.67	0.10	0.15	18.9	.	.	.	.	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	.
2	13X 18001	0.22	1.40	0.022	0.057	0.32	0.16	6.41	15.92	0.04	0.80	.	0.57	.	.	.
1	13X 18003	0.203	0.773	0.054	0.042	1.008	0.074	10.35	19.98	0.120	0.397	0.046	1.12	.	.	.
2	13X NSB1	0.17	0.44	.	.	0.58	.	10.0	19.1	.	0.11	0.04	.	.	.	.
2	13X NSA3	0.16	1.07	.	.	0.57	.	12.0	16.1	.	2.8	0.20	.	.	.	.
2	13X 12540	0.15	0.44	.	.	1.05	.	5.17	27.88	.	0.54	.	.	.	.	.
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	13X NSA2	0.142	0.808	.	0.0083	0.805	.	10.24	18.71	.	1.89	0.163	.	.	.	.
1	13X 17005	0.128	0.446	0.090	0.0166	2.03	0.283	20.19	24.96	0.033	0.472	0.118	0.125	.	.	.
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	IRSID 1824	0.124	1.70	0.027	(0.0033)	0.444	0.200	19.02	25.01	0.193	0.205	.	(0.014)	0.066	0.084	(0.066)
1	13X NSB3	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
1	13X 17002	0.117	1.38	0.056	0.050	0.664	0.085	7.84	17.62	0.103	0.222	0.047	0.487	.	.	.
2	13X 17001	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 18002	0.114	0.95	0.028	0.048	0.46	0.112	7.98	17.7	0.05	0.199	0.011	1.51	.	.	.
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	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	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 PH7	0.10	1.49	0.031	0.021	1.40	0.79	5.58	13.15	.	2.53	0.060	0.29	.	.	.
2	13X 17003	0.10	0.85	0.037	0.035	0.78	0.08	11.9	11.89	0.07	0.27	.	0.34	.	.	.
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)	.	.
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	SS 462	0.092	0.74	0.010	0.018	0.46	.	12.55	12.35	.	.	.	.	.	.	.
2	CT X12126	0.090	0.87	0.025	0.007	0.60	0.36	9.85	18.26	.	0.56	0.052	.	.	.	.
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	KUT S26	0.076	0.99	0.027	0.026	0.67	0.14	3.31	18.9	.	2.59	.	0.07	0.11	.	.
1	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
2	13X NSA1	0.07	0.42	.	.	0.4	.	7.9	20.3	.	2.47	0.040	.	.	.	.
1	IARM 241C	0.069	1.50	0.043	0.030	0.630	0.52	8.05	17.80	0.058	0.117	0.0478	0.003	0.002	0.039	0.01
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	.	.

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
2	CT X63137	0.067	1.86	0.025	0.022	0.55	0.28	11.95	18.57	0.22	0.45	.	.	.	0.078	.
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	1.8	0.018	0.01	0.54	0.121	11.2	17.4	0.10	0.16	.	.	0.34	.	.
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	IARM 3C	0.066	1.573	0.023	0.027	0.27	0.130	14.88	22.28	0.078	0.195	0.037	0.013	0.004	0.116	0.032
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
2	BS 316A	0.065	1.48	0.029	0.026	0.74	0.35	10.15	17.25	0.16	2.05	0.045	0.029	(0.003)	0.130	0.10
1	IMZ 152	0.065	1.42	0.010	0.0025	0.52	0.061	9.48	18.04	.	0.017	.	.	.	0.030	.
1	IARM 7C *	0.065	1.32	0.014	(0.0006)	1.21	0.03	34.7	18.4	(0.04)	0.09	0.0340	0.19	0.019	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 80F	0.062	1.76	0.036	0.35	0.63	0.41	8.58	17.10	0.16	0.48	0.035	0.016	.	0.087	0.047
2	CT X25627	0.062	1.76	0.021	0.028	0.48	0.28	8.40	19.80	0.10	0.24	0.25	.	.	0.11	.
2	CT X17173	0.062	1.56	0.024	0.024	0.64	0.54	11.83	18.23	0.38	0.72	0.042	.	.	0.10	.
2	CT 689	0.062	1.50	0.005	0.006	0.80	0.10	12.52	17.48	0.12	2.48	.	0.008	0.005	0.030	.
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	KUT H7/1	0.062	0.35	0.018	0.022	0.42	0.085	0.10	9.07	.	.	.	0.21	.	0.15	.
2	BS 321A	0.061	1.22	0.030	0.012	0.48	0.284	9.38	17.20	0.15	0.20	0.0075	0.021	0.51	0.066	0.06
2	CT 316	0.061	1.64	0.029	0.023	0.69	0.25	12.61	17.60	0.14	2.45	.	.	.	0.051	.
2	CT X52353	0.060	0.90	0.022	0.008	0.56	0.28	11.94	17.46	0.28	0.34	.	.	.	0.053	.
2	13X NSB2	0.06	0.62	.	.	0.66	.	11.1	18.2	.	0.21	0.095	.	.	.	.
2	13X 17004	0.06	0.62	0.024	0.048	1.32	0.11	16.06	21.78	0.05	0.31	.	0.23	.	.	.
1	BS 9842	0.059	1.50	0.025	0.0016	0.99	0.147	20.02	24.19	0.237	0.111	0.037	0.026	0.003	0.075	0.011
2	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	0.005	0.087	0.028
1	SRM 1172	0.056	1.7	0.025	0.01	0.59	0.10	11.3	17.4	0.12	0.22	.	0.65	.	.	.
2	BS 83D	0.056	1.39	0.026	0.010	0.51	0.17	19.55	24.92	0.16	0.23	0.024	0.019	(0.003)	0.092	0.07
2	BS 83F	0.055	1.78	0.023	0.003	0.47	0.074	20.5	24.5	0.19	0.20	.	0.11	(0.008)	(0.04)	(0.08)
2	BS 87F	0.055	1.64	0.024	0.025	0.67	0.28	10.12	17.30	0.17	0.29	0.037	0.57	0.004	0.13	0.050
1	13X 19001	0.055	0.460	0.0151	0.0174	1.20	0.202	5.10	15.07	0.025	1.51	.	0.032	.	0.083	.
2	BS 86F	0.054	1.30	0.021	0.0011	1.22	0.23	34.99	18.74	0.098	0.24	0.035	0.19	(0.006)	0.061	(0.03)
1	IARM 8E	0.054	1.67	0.027	0.024	0.62	0.267	9.46	17.63	0.143	0.29	0.041	0.64	(0.002)	0.071	0.055
2	BS 81N	0.053	1.83	0.028	0.017	0.56	0.25	8.42	19.72	0.11	0.36	0.234	0.013	<0.005	0.088	0.044
1	13X 12854	0.053	1.300	0.024	0.0278	1.308	0.306	11.60	15.77	0.33	2.50	.	0.689	0.065	.	0.16
2	BS 347B	0.051	1.57	0.028	0.026	0.51	0.15	9.16	17.24	0.05	0.38	0.056	0.71	(0.002)	0.04	(0.005)
2	BS 347A	0.051	1.50	0.026	0.020	0.54	0.31	9.20	17.44	0.054	0.326	0.044	0.79	(0.002)	0.10	(0.03)
1	IARM 2G *	0.050	1.82	0.029	0.026	0.29	0.37	8.3	18.2	0.12	0.30	0.079	0.017	0.0014	0.069	0.05
2	13X 12853	0.050	1.17	0.016	0.016	0.99	0.114	11.92	17.2	0.06	2.74	(0.011)	.	0.027	.	0.12
2	BS 188A	0.050	0.139	0.015	0.0049	0.15	0.099	24.61	14.04	0.18	1.10	0.0029	0.050	2.21	0.24	0.055

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
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STAINLESS STEEL WITH C > 0.05 %

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Number	Al	As	B	Bi	Ca	Ce	O	Pb	Sb	Sn	Ta	Zr	Units
KUT S24	30-35 mm Ø x 18 mm
KUT H2	30-35 mm Ø x 18 mm
KUT S21	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 mm
KUT H6/1	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 mm
KUT S19	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 mm
SRM C1153a	.	.	.	.	.	.	.	0.006	.	.	.	.	32 mm Ø x 19 mm
13X 18001	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
13x 18003	.	.	.	.	.	.	.	.	.	.	.	.	42 mm Ø x 15 mm
13X NSB1	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
13X NSA3	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
13X 12540	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
SS 468/1	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
SRM C1152a	.	.	.	.	.	.	.	0.0047	.	.	.	.	32 mm Ø x 19 mm
13X NSA2	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
13X 17005	.	.	0.0035	.	.	.	.	.	.	.	(0.11)	.	40 mm Ø x -15 mm
IARM 289A	0.01	.	(0.0003)	.	.	.	0.0104	.	.	(0.002)	<0.005	.	31 mm Ø x 2 or 18 mm
IRSID 1824	0.062	.	.	.	.	.	.	.	.	.	.	.	42 mm Ø x 30 mm
13X NSB3	.	.	.	.	.	.	.	0.006	.	.	.	.	42 mm Ø x 15 mm
KUT H5	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 mm
13X 17002	(0.0046)	.	.	.	.	.	.	.	.	(0.0024)	.	.	42 mm Ø x 15 mm
13X 17001	0.01	.	0.008	.	.	.	.	.	.	0.030	.	.	40 mm Ø x 15 mm
13X 18002	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
IRSID 1819	.	.	(0.0004)	.	.	.	.	.	.	.	.	.	47 mm x 47 mm x 30 mm
IMZ 166A	0.036	(0.0026)	.	.	.	.	.	.	.	(0.0035)	.	.	40 mm Ø x 40 mm
IMZ 164	0.040	(0.005)	.	.	.	.	.	(0.002)	.	(0.003)	.	.	40 mm Ø x 40 mm
13X PH7	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
13X 17003	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
KUT S20	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 mm
BS 253	0.016	0.005	.	.	.	0.044	.	.	.	0.006	.	.	38 mm Ø x 12 mm
SS 462	.	0.007	.	.	.	.	.	0.0005	.	.	.	.	38 mm Ø x 19 mm
CT X12126	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 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
KUT S26	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 mm
BS 192	1.17	(0.005)	(0.0003)	.	0.0007	.	0.0014	.	.	0.008	(0.001)	.	38 mm Ø x 12 mm
BS 83G	(0.004)	.	(0.001)	.	.	.	0.0064	.	.	0.003	.	.	38 mm Ø x 12 mm
13X NSA1	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
IARM 241C	0.003	.	0.0005	.	.	.	0.007	.	.	0.0057	.	.	31 mm Ø x 2 or 18 mm
KUT S25	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 mm

Number	Al	As	B	Bi	Ca	Ce	O	Pb	Sb	Sn	Ta	Zr	Units
CT X63137	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
CT 305	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
SRM 1171	.	.	.	.	.	.	.	.	.	.	.	.	31 mm Ø x 19 mm
BS 9841	(<0.006)	(0.003)	0.0026	.	(0.0002)	.	(0.011)	(0.001)	(0.006)	0.006	.	(0.002)	44 mm Ø x 12 mm
IARM 3C	0.004	.	0.0003	.	.	.	0.015	.	.	0.003	<0.005	.	31 mm Ø x 2 or 18 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	.	.	38 mm Ø x 12 mm
BS 316A	0.004	.	0.0004	.	0.0015	.	0.0041	.	.	0.008	.	.	38 mm Ø x 12 mm
IMZ 152	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
IARM 7C *	0.02	.	(0.003)	* Provisional Analysis	.	.	0.002	.	.	(0.002)	.	.	31 mm Ø x 2 or 18 mm
CT 304	.	.	.	.	.	.	.	<0.001	.	0.017	.	.	30-35 mm Ø x 20-25 mm Ag: 7ppm
BS 80F	0.001	.	0.0012	.	.	.	0.0058	.	.	0.010	.	.	41 mm Ø x 12 mm
CT X25627	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
CT X17173	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
CT 689	0.030	.	0.0011	.	.	.	.	0.0012	<0.001	0.005	0.008	0.005	30-35 mm Ø x 20-25 mm Ag: 28ppm
BS 82E	0.006	.	0.0024	.	0.0014	.	.	.	.	0.006	.	.	38 mm Ø x 12 mm
KUT H7/1	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 mm
BS 321A	0.038	(0.006)	(0.0005)	.	(0.0002)	.	0.0013	.	.	0.010	(0.002)	.	38 mm Ø x 12 mm
CT 316	.	.	.	.	.	.	.	0.001	.	0.006	.	.	30-35 mm Ø x 20-25 mm Ag: 5ppm
CT X52353	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
13X NSB2	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
13X 17004	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
BS 9842	0.014	(0.002)	0.0025	.	0.0010	.	(0.0044)	.	.	0.005	.	.	38 mm Ø x 12 mm
BS 82D	(0.002)	.	0.0040	.	0.0007	.	0.007	.	.	0.004	.	.	38 mm Ø x 12 mm
SRM 1172	.	.	.	.	.	.	.	.	.	.	<0.001	.	32 mm Ø x 19 mm
BS 83D	0.004	.	(0.0003)	.	(0.0003)	.	0.0069	.	.	0.006	.	.	38 mm Ø x 12 mm
BS 83F	.	.	.	.	.	.	.	.	.	(0.006)	.	.	44 mm Ø x 12 mm
BS 87F	0.004	0.005	(0.0006)	.	0.0007	.	0.005	.	.	0.004	.	.	41 mm Ø x 12 mm
13X 19001	.	.	.	.	.	.	.	.	.	.	(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 12 mm
IARM 8E	(0.003)	.	0.0024	.	.	.	0.007	.	.	0.008	(0.001)	(0.001)	31 mm Ø x 2 or 18 mm
BS 81N	0.003	.	0.0007	.	(0.0006)	.	0.005	.	.	0.010	.	.	44 mm Ø x 12 mm
13X 12854	.	.	0.0076	.	.	.	.	.	.	.	(0.06)	.	40 mm Ø x 15 mm
BS 347B	0.002	(0.003)	0.0036	.	(0.0005)	.	0.005	.	.	0.006	(<0.004)	.	38 mm Ø x 12 mm
BS 347A	(0.002)	(0.003)	(0.0004)	.	(0.0002)	.	0.0047	.	.	0.007	(<0.004)	.	38 mm Ø x 12 mm
IARM 2G *	(0.003)	0.006	0.0005	* Provisional Analysis	.	.	0.004	.	.	0.011	(0.005)	.	40 mm Ø x 15 mm
13X 12853	.	.	0.003	(0.007)	.	.	.	.	0.02	.	0.03	0.009	40 mm Ø x 15 mm
BS 188A	0.19	.	0.0065	.	.	.	0.0012	<0.001	.	0.002	.	.	38 mm Ø x 12 mm

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

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= Class, where 1 = CRM and 2 = RM analysis listed in mass %

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
2	BS 85D	0.049	1.69	0.025	0.024	0.55	0.45	10.03	17.09	0.97	0.59	0.016	0.065	0.48	0.134	0.06
1	ECRM 289-1D	0.0489	1.016	0.0114	0.0027	0.531	.	24.68	14.63	0.065	1.102	.	.	2.01	0.260	.
1	NCS HS15751	0.046	1.19	0.03	0.0011	0.62	0.219	9.26	17.36	0.086	0.2	0.018	.	0.202	0.045	.
2	BS CA304-1	0.045	1.06	0.026	0.016	0.71	0.34	8.57	18.30	0.20	0.34	0.083	0.026	0.028	0.09	0.04
1	SRM 1155	0.0445	1.619	(0.0200)	0.0175	(0.5093)	0.175	12.35	18.37	(0.109)	(2.26)	(0.04)	.	.	0.050	(0.11)
1	KUT S15	0.043	0.38	(0.02)	0.013	0.26	1.54	3.90	16.7	.	2.46	.	0.64	.	.	.
2	NILAB 500HA D	0.041	1.541	0.024	0.012	.	0.182	11.00	16.93	0.139	2.73	0.1154	0.023	.	0.074	.
1	IARM 6F	0.041	1.38	0.029	0.0006	0.37	0.41	9.15	17.13	0.150	0.331	0.011	0.013	0.45	0.090	0.034
2	BS CA304-2	0.041	1.07	0.025	0.020	0.69	0.30	8.63	18.31	0.19	0.50	0.086	0.016	0.032	0.08	0.04
1	IARM 6G	0.040	1.39	0.030	0.0006	0.37	0.41	9.14	17.15	0.150	0.330	0.011	0.013	0.440	0.089	0.033
2	13X 12538	0.04	0.78	.	.	0.64	.	6.07	23.72	.	1.53	.	.	.	.	.
2	BS CA304-3	0.038	0.97	0.027	0.024	0.70	0.42	8.59	18.39	0.22	0.41	0.094	0.020	0.024	0.07	0.06
2	BS 321C	0.037	1.72	0.025	0.022	0.58	0.28	10.58	17.16	0.048	0.30	0.0082	0.008	0.38	0.079	(0.03)
1	IRSID 1821	0.037	1.72	(0.025)	(0.004)	0.542	0.058	10.42	17.04	0.266	2.04	0.0125	.	0.297	.	.
1	ECRM 292-1D	0.0367	1.744	0.0175	0.0055	0.402	0.0391	10.09	18.00	0.0255	0.0464	0.0640	0.571	.	.	.
1	13X 12855	0.0361	0.939	0.0210	0.0123	1.029	0.379	10.98	17.55	0.207	2.56	0.070	.	0.044	.	0.201
2	BS 184A	0.035	0.06	0.007	0.001	0.080	0.041	8.34	12.66	0.036	2.20	0.0045	(0.006)	0.051	0.014	0.032
1	IARM 21C	0.035	0.051	0.007	0.0038	0.042	0.047	8.18	12.39	0.021	2.11	0.0045	0.007	0.012	0.013	(0.01)
1	SS 462/1	0.0345	0.722	0.0053	0.0041	0.463	0.0112	12.85	11.888	.	0.0304	.	.	.	.	.
1	SRM C1151a	0.034	2.37	0.017	0.038	0.29	0.385	7.25	22.59	0.033	0.79	.	.	.	0.040	.
1	BS 9812	0.031	0.485	0.018	0.004	0.43	1.65	6.61	14.82	0.110	0.76	0.0195	0.645	(0.005)	0.088	0.025
2	BS 9722	0.031	1.70	0.020	0.0014	0.55	0.108	9.15	19.13	0.054	0.128	0.047	.	.	0.076	.
1	13X 12534	0.0303	0.604	0.0309	0.0209	0.988	0.079	10.24	18.76	0.064	2.32	0.0141	.	0.159	.	.
2	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
1	BS 9811	0.027	0.380	0.016	0.0010	0.36	1.63	6.55	14.87	0.055	0.744	0.0196	0.62	(0.003)	0.086	0.013
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
2	BS 81P	0.026	1.35	0.023	0.012	0.36	0.19	10.06	18.15	0.21	0.41	0.069	.	0.003	0.078	0.037
1	NCS HS11709-1	0.025	0.707	0.044	0.053	0.253	0.378	6.03	25.16	0.018	0.056	.	.	0.051	.	0.054
1	IARM 212C *	0.025	1.25	0.025	0.0032	0.43	0.22	5.22	22.2	0.083	3.03	0.153	0.025	(0.003)	0.11	0.043
2	BS CA316-2	0.023	1.54	0.026	0.019	0.46	0.43	11.21	17.44	0.31	2.08	(0.047)	0.021	0.030	0.062	0.074
1	ECRM 297-1D	0.0223	0.897	0.0137	0.0101	0.344	0.204	12.33	18.37	0.0413	0.290	0.0152	(0.0089)	0.0072	0.0535	(0.0057)
1	IARM 162B	0.022	1.76	0.029	0.025	0.635	0.81	10.25	18.35	0.30	0.482	0.0241	0.032	0.002	0.117	0.10
1	BS 9941	0.021	1.78	0.027	0.024	0.33	0.424	13.68	18.48	0.178	3.24	0.036	0.015	(0.002)	0.062	0.068
1	BS 9942	0.021	1.84	0.025	0.006	0.49	0.305	13.55	18.21	0.086	3.30	0.071	0.005	(0.002)	0.072	0.032
1	IRSID 1820	0.021	1.61	(0.021)	0.0079	0.428	0.045	9.07	19.51	0.151	0.115	0.064	.	.	.	.
1	ECRM 284-2D	0.0201	1.745	0.0258	0.0237	0.537	0.1831	10.72	16.811	0.0525	2.111	0.0151	.	0.191	0.0425	.
2	BS 318	0.020	1.39	0.019	0.002	0.48	0.17	5.61	22.30	0.101	3.31	0.159	.	(0.003)	0.064	<0.02
1	SS 463/1	0.019	1.400	0.025	0.019	0.270	0.276	10.20	18.46	0.116	0.265	0.063	.	.	.	.
2	BS 84J	0.017	1.46	0.035	0.025	0.57	0.46	10.34	17.12	0.23	2.08	0.059	0.024	(0.002)	0.09	0.054
2	BS SS3952	0.017	0.82	0.029	0.017	0.53	0.38	10.04	18.06	0.11	0.28	0.017	0.005	0.002	0.045	0.023
1	ECRM 287-1D	0.016	1.48	0.027	0.0014	0.569	0.203	10.35	18.61	0.148	0.247	0.019	.	.	.	.
1	IARM 301A *	0.016	0.81	0.020	0.0006	0.27	0.108	6.95	24.9	0.038	3.85	0.281	(0.007)	(0.003)	0.048	0.017
1	IARM 153B	0.015	1.58	0.031	0.0082	0.28	0.408	13.19	18.13	0.115	3.12	0.0158	0.008	0.002	0.031	0.020
1	IARM 319A *	0.015	0.53	0.023	0.0006	0.23	0.51	6.9	25.1	0.050	3.56	0.239	0.006	(0.003)	0.077	0.53
1	ECRM 298-1D	0.0146	0.398	0.0198	0.0006	0.262	0.201	7.056	24.72	0.055	3.799	0.263	.	0.0014	0.0607	.
2	BS SS3951	0.014	1.56	0.023	0.031	0.61	0.22	9.18	18.17	0.16	0.303	0.077	0.085	(0.002)	0.067	0.040
1	IARM 163B	0.0138	1.36	0.027	0.025	0.516	0.475	11.14	16.78	0.128	2.04	0.046	0.007	0.005	0.075	0.036
1	13X 19003	0.0132	1.273	0.0406	0.0390	0.550	0.068	12.22	18.56	0.121	2.47	0.020	0.122	.	.	.
1	IARM 163C	0.013	1.60	0.029	0.026	0.37	0.43	10.36	17.16	0.178	2.03	0.071	0.013	<0.005	0.085	0.046
1	SS 461/1	0.0103	0.686	0.0053	0.0051	0.374	0.0091	6.124	14.727	(0.004)	0.0138	.	.	.	.	.
2	BS SS1961	0.009	0.049	0.008	0.0038	0.056	2.11	8.31	11.61	0.036	0.020	0.0025	0.26	1.16	0.074	(0.01)
2	BS SS1962	0.008	0.06	0.006	0.0025	0.06	2.22	8.32	11.42	(0.015)	0.008	0.0025	0.27	1.11	0.071	(0.02)
2	CT ISO123A	0.003	0.035	0.007	<0.0005	0.031	0.010	11.10	11.67	0.016	0.92	0.003	<0.001	1.58	0.014	.
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W

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
BS 85D	0.13	0.006	0.0006	0.0004	.	0.0014	0.001	(0.006)	.	38 mm Ø x 12 mm
ECRM 289-1D	0.199	.	0.0044	.	.	.	.	0.111	.	38 mm Ø x 30 mm
NCS HS15751	0.012	0.0033	.	.	.	.	0.0017	0.0073	.	40 mm Ø x 40 mm S.Al: 0.011
BS CA304-1	0.003	.	0.0006	0.0045	.	0.0041	.	0.010	.	38 mm Ø x 12 mm
SRM 1155	.	(0.01067)	.	.	.	(0.001)	.	.	.	32 mm Ø x 19 mm Revised 2009, very wide +/- for Cr, Mo, Ni
KUT S15	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 mm
NILAB 500HA D	.	.	.	.	.	.	.	.	.	38 mm Ø x 20 mm
IARM 6F	0.033	.	0.0003	.	0.001	.	.	0.014	(0.002)	31 mm Ø x 2 or 18 mm
BS CA304-2	0.004	.	0.0008	0.0041	.	0.0044	.	0.009	.	41 mm Ø x 12 mm
IARM 6G	0.030	.	0.0004	.	0.0017	.	.	0.014	(0.002)	31 mm Ø x 2 or 18 mm
13X 12538	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
BS CA304-3	0.003	.	0.0008	0.0047	.	0.0049	.	0.010	.	44 mm Ø x 12 mm
BS 321C	0.044	(0.004)	(0.0005)	(0.0001)	.	(0.0011)	.	0.006	.	38 mm Ø x 12 mm
IRSID 1821	.	.	.	.	.	.	.	.	.	47 mm x 47 mm x 30 mm
ECRM 292-1D	(0.002)	(0.008)	.	(0.0006)	.	.	.	.	(0.001)	38 mm Ø x 30 mm
13X 12855	.	.	0.0036	.	.	.	0.177	.	(0.11)	~40 mm Ø x 15 mm Bi: 0.0030
BS 184A	1.00	.	(0.0004)	(0.0003)	.	(0.0003)	.	(0.002)	.	38 mm Ø x 12 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
BS 9812	(0.002)	(0.005)	(0.0003)	0.0012	.	(0.007)	.	0.004	.	50 mm Ø x 12 mm
BS 9722	.	.	.	.	.	.	.	.	.	38 mm Ø x 12 mm
13X 12534	(0.04)	.	.	.	.	.	.	.	0.037	40 mm Ø x ~15 mm
BS 317L	(0.005)	.	0.0013	.	.	0.007	.	0.005	.	37 mm Ø x 12 mm
BS 9811	(0.003)	(0.003)	(0.0003)	0.0014	.	(0.0060)	.	0.004	.	38 mm Ø x 12 mm

Number	Al	As	B	Ca	O	Pb	Sb	Sn	Ta	Units
BS 81P	(0.003)	.	0.0026	(0.0004)	.	(0.0064)	.	0.007	.	37 mm Ø x 12 mm
NCS HS11709-1	0.255	0.033	.	.	.	.	.	0.0068	.	38 mm Ø x 30 mm
IARM 212C *	0.006	.	0.0028	.	0.005	.	.	0.004	(0.002)	31 mm Ø x 2 or 18 mm * Provisional Analysis
BS CA316-2	0.004	.	0.0006	0.0046	.	.	.	0.013	.	38 mm Ø x 12 mm
ECRM 297-1D	0.0195	0.0040	1.146	(0.0002)	.	.	.	.	.	40 mm Ø x 30 mm Zr: (2) ppm
IARM 162B	0.003	.	0.003	.	0.004	.	.	0.009	<0.01	31 mm Ø x 2 or 18 mm
BS 9941	0.004	(0.010)	0.0025	(0.0003)	(0.0058)	.	.	0.007	.	38 mm Ø x 12 mm
BS 9942	0.004	(0.004)	0.0014	0.0014	(0.0023)	.	.	0.006	.	44 mm Ø x 12 mm
IRSID 1820	.	.	(0.0013)	.	.	.	.	.	.	47 mm x 47 mm x 30 mm
ECRM 284-2D	0.0027	0.0063	0.0026	.	0.0099	.	.	0.0047	.	38 mm Ø x 30 mm
BS 318	0.006	.	(0.0004)	.	(0.004)	.	.	0.004	.	38 mm Ø x 12 mm
SS 463/1	.	.	0.0022	.	.	.	.	.	.	38 mm Ø x 19 mm
BS 84J	(0.002)	.	0.0005	0.0010	0.0063	.	.	0.007	.	38 mm Ø x 12 mm
BS SS3952	0.004	.	(0.0005)	0.0015	0.005	.	.	0.017	.	44 mm Ø x 12 mm
ECRM 287-1D	.	.	0.924	.	.	.	.	.	.	38 mm Ø x 30 mm
IARM 301A *	0.021	.	0.0020	.	(0.004)	.	.	(0.003)	.	31 mm Ø x 2 or 18 mm * Provisional Analysis
IARM 153B	0.006	.	0.0022	.	0.0052	.	.	0.014	.	31 mm Ø x 2 or 18 mm
IARM 319A *	0.011	(0.005)	(0.002)	.	(0.003)	.	.	0.005	(0.003)	31 mm Ø x 2 or 18 mm * Provisional Analysis
ECRM 298-1D	0.0285	.	0.0021	.	.	0.00008	.	.	.	38 mm Ø x 25 mm Fe: 63.38
BS SS3951	0.002	.	(0.0006)	0.0005	0.0075	.	.	0.007	.	41 mm Ø x 12 mm
IARM 163B	0.005	.	0.0026	.	0.0043	.	.	0.006	.	31 mm Ø x 2 or 18 mm
13X 19003	.	.	.	.	.	.	.	.	.	42 mm Ø x 15 mm
IARM 163C	0.004	.	0.0005	.	0.0046	.	0.013	.	<0.01	31 mm Ø x 2 or 18 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
BS SS1962	0.062	0.002	0.0018	.	(0.001)	.	.	0.004	.	38 mm Ø x 12 mm
CT ISO123A	0.027	.	0.0021	30-35 mm Ø x 20-25 mm Fe: 74.72

Number	Al	As	B	Ca	O	Pb	Sb	Sn	Ta	Units
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RM STAINLESS STEEL SETS

AVAILABLE IN SETS ONLY, AS GROUPED

BS SS-17: Set of 17 7 mm discs

BS 400-SS-16: Set of 16 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 88G	0.047	0.43	0.028	0.023	0.54	3.95	4.28	15.67	0.059	0.18	0.032	0.30	0.060	0.03
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
203	BS 203MN	0.048	5.99	0.026	0.30	0.46	1.88	5.50	16.75	0.06	0.18	0.032	(0.004)	0.054	0.03
2205	BS 318	0.020	1.39	0.019	0.002	0.48	0.17	5.61	22.30	0.101	3.31	0.159	.	0.064	<0.02
303	BS 80F	0.062	1.76	0.036	0.35	0.63	0.41	8.58	17.10	0.16	0.48	0.035	0.016	0.087	0.047
304	BS CA 304-1	0.045	1.06	0.026	0.016	0.71	0.34	8.57	18.30	0.20	0.34	0.083	0.026	0.09	0.04
304L	BS 81G	0.023	1.69	0.032	0.026	0.63	0.54	8.18	18.65	0.29	0.69	0.082	0.041	0.12	0.054
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 83H	0.059	1.51	0.025	0.002	0.99	0.15	20.03	24.18	0.24	0.11	0.037	0.026	0.075	(0.012)
316	BS 316B	0.047	1.27	0.033	0.028	0.31	0.35	10.09	16.21	0.18	2.03	0.044	0.007	0.059	0.023
316L	BS 84J	0.017	1.46	0.035	0.025	0.57	0.46	10.34	17.12	0.23	2.08	0.059	0.024	0.09	0.054
317L	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 321A	0.061	1.22	0.030	0.012	0.48	0.284	9.38	17.20	0.15	0.20	0.0075	0.021	0.066	0.06
330	BS 86E	0.059	1.44	0.020	0.001	1.38	0.22	35.26	18.46	0.11	0.15	0.032	0.005	0.074	0.05
347	BS 347A	0.051	1.50	0.026	0.020	0.54	0.31	9.20	17.44	0.054	0.326	0.044	0.79	0.10	(0.03)
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 410A	0.134	0.46	0.017	0.0010	0.37	0.027	0.23	13.17	(0.011)	0.207	0.036	.	0.021	.
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	0.28	0.53	0.052	0.14	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	.

Grade	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	V	W
SET BS SS-17															
	Number	Al	B	Ca	Se	Sn	Ti								
BS 185A	0.002	0.0017	(0.0002)	.	0.007	(0.001)									
BS 88G	(0.002)	(0.0005)	(0.0008)	.	(0.007)	(0.001)									
BS 192	1.15	(0.0004)	0.0007	.	0.009	0.078									
BS 203MN	(0.001)	(0.0010)	.	.	0.007	(0.002)									
BS 318	0.006	(0.0004)	(0.0004)	.	0.004	(0.003)									
BS 80F	0.001	0.0012	.	.	0.010	.									
BS CA 304-1	0.003	0.0006	0.0045	.	0.010	0.028									
BS 81G	(0.002)	0.0005	0.0010	.	0.016	(0.002)									
BS 82D	(0.002)	0.0040	0.0007	.	0.004	0.005									
BS 83H	(0.014)	0.0026	0.0008	.	(0.004)	(0.004)									
BS 316B	0.003	0.0005	0.0003	.	0.012	(0.002)									
BS 84J	(0.002)	0.0005	0.0010	.	0.007	(0.002)									
BS 317L	(0.005)	0.0013	(0.001)	.	0.005	.									
BS 321A	0.038	(0.0005)	(0.0002)	.	0.010	0.51									
BS 86E	(0.0003)	0.0045	.	.	0.006	(0.008)									
BS 347A	(0.002)	(0.0004)	(0.0002)	.	0.007	(0.002)									
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 410A	(0.003)	.	.	.	(0.004)	.									
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	(0.002)	.	.	.	0.002	.									
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									
	Number	Al	B	Ca	Se	Sn	Ti								

HIGH ALLOY STEEL

= Class, where 1 = CRM and 2 = RM

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	Nb	Ti	V
1	IARM 242A	0.24	0.018	0.002	0.0004	0.02	0.007	11.1	3.00	0.004	13.5	1.21	0.0003	0.004	0.009	0.01
1	23X 8001	0.130	1.29	0.0067	0.0067	0.191	0.078	30.98	20.28	0.55	0.982	0.540	.	.	0.650	.
2	CT 972	0.098	0.59	0.031	0.027	0.41	0.13	35.84	0.06	0.17	0.44	0.11	.	0.09	0.36	0.06
1	SRM 1246	0.082	0.91	0.018	0.001	0.18	0.49	30.8	20.1	0.30	0.076	0.36	(0.018)	(0.09)	0.32	(0.040)
2	23X DS5	0.080	1.04	.	.	1.98	0.30	36.6	8.64	0.083	0.50	0.30	.	.	0.17	.
2	CT X17842	0.077	0.31	0.006	0.002	0.24	0.023	30.00	0.71	.	0.026	0.011	.	.	.	.
2	BS 800	0.075	0.80	0.016	0.0006	0.55	0.32	31.38	19.92	0.28	0.056	0.19	.	0.0020	0.475	0.073
2	23X 8005	0.07	0.73	.	.	0.46	0.28	32.2	20.81	0.22	0.50	0.34	.	.	0.35	.
2	HH 5157A	0.067	0.95	0.012	0.003	0.43	0.33	29.31	21.48	0.45	.	.	.	.	0.55	.
2	23X 8002	0.06	0.68	.	.	0.47	0.28	32.1	20.48	0.29	0.54	0.34	.	.	0.32	.
2	23X 8004	0.06	0.70	.	.	0.53	0.30	31.8	19.72	0.31	0.53	0.33	.	.	0.34	.
2	23X DS2	0.06	1.00	.	.	2.07	0.30	37.4	17.81	0.04	0.48	0.30	.	.	0.17	.
2	IARM 24A	0.055	0.76	0.01	0.001	0.27	0.08	36.07	0.17	(0.002)	0.056	0.01	(0.0026)	(0.01)	<0.005	0.024
1	IARM 24B	0.053	0.82	0.009	0.0010	0.28	0.052	35.86	0.121	0.002	0.036	0.011	0.0017	<0.01	0.002	<0.005
2	CT 971	0.052	0.20	0.038	0.017	0.27	0.02	36.03	0.22	0.25	0.17	0.23	.	0.04	0.48	0.05
2	23X DS4	0.05	1.02	.	.	2.01	0.30	37.1	16.83	0.037	0.48	0.29	.	.	0.20	.
1	SRM 1230	0.044	0.64	0.023	0.0007	0.43	0.14	24.2	14.8	0.24	0.15	1.18	.	.	2.12	0.23
2	HH 5179A	0.042	0.87	0.012	0.003	0.38	0.26	34.13	22.20	0.30	.	.	.	.	0.46	.
2	BS 186A	0.040	0.72	0.008	0.005	0.19	0.016	35.86	0.16	(0.001)	0.028	0.003	0.0026	<0.002	<0.003	0.001
2	HH 5196A	0.036	1.05	0.011	0.002	0.45	0.24	31.46	20.66	0.31	.	.	.	.	1.13	.
2	13X 14935 S *	0.03	0.32	0.040	0.052	0.31	.	18.93	0.26	0.26	7.05	5.40	.	.	0.94	.
1	IARM 26C	0.028	0.25	0.017	0.0004	0.08	0.144	25.05	13.7	0.12	0.052	1.09	0.0045	(0.002)	1.87	0.238
2	HH 5300A	0.026	0.86	0.013	0.003	0.35	0.28	33.56	18.18	0.45	.	.	.	.	0.54	.
1	13X 14934	0.0254	0.254	0.024	0.0288	0.502	.	17.60	0.388	0.15	9.03	4.22	0.0132	.	0.694	.
1	SRM 1158	0.025	0.468	0.004	0.005	0.194	0.039	36.03	0.062	.	0.008	0.010	.	.	.	0.001
1	IARM 302A *	0.023	0.93	0.024	0.0008	0.55	0.69	17.7	20.4	0.015	0.069	6.15	0.183	(0.01)	(0.003)	0.05
2	BS 187A	0.022	0.52	0.017	0.0025	0.26	3.10	33.06	19.75	(0.009)	0.32	2.06	0.0157	0.57	(0.002)	0.10
2	CT IS0139A	0.021	1.00	0.001	0.0005	0.015	<0.0001	41.69	0.004	.	0.066	<0.001	.	.	.	.
1	SRM 1247	0.021	0.38	0.018	0.002	0.32	1.75	43.5	23.4	0.060	0.089	2.73	(0.017)	(0.46)	0.75	(0.048)
2	BS 187C	0.020	0.77	0.024	<0.002	0.77	3.17	32.93	20.16	0.10	0.096	2.07	0.022	0.36	(0.001)	0.059
2	CT IS0141A	0.0199	0.31	0.001	<0.001	0.28	<0.001	47.16	<0.001	0.001	0.030	<0.001	<0.001	.	0.014	0.024
2	CT IS0136A	0.018	0.44	0.001	<0.001	0.198	<0.001	44.92	0.002	.	0.009	<0.001	.	.	.	.
1	ECRM 299-1D	0.0154	0.2678	0.0152	0.00022	0.299	0.0382	0.172	22.32	5.33	0.0187	0.0186	0.0198	.	0.1289	0.0329
1	NILAB 501HA D	0.014	0.858	0.020	0.003	.	0.761	17.69	19.79	0.003	0.159	6.14	0.2243	0.007	.	0.044
1	IARM 157B	0.014	0.40	0.022	0.0005	0.31	0.21	24.01	20.4	0.015	0.21	6.21	0.22	0.034	0.005	0.069
1	KUT S22	0.014	0.34	0.009	0.008	0.61	(0.02)	28.2	1.00	.	.	0.82	.	.	0.13	.
2	CT IS0124A	0.011	0.73	0.007	0.006	0.40	0.015	48.07	0.079	.	0.012	0.009	.	.	.	.
1	13X 14935	0.0105	0.494	0.036	0.055	0.441	.	18.96	0.745	(0.007)	7.17	5.61	0.0102	.	0.106	.
2	13X 14933	0.008	0.17	0.023	0.014	0.05	.	16.8	0.022	<0.005	11.4	3.83	.	.	0.029	.
1	SRM 1159	0.007	0.30	0.003	0.003	0.32	0.038	48.2	0.06	.	0.022	0.01	.	.	.	.
1	IARM 98B	0.007	0.18	0.002	0.0007	0.17	0.028	29.4	0.012	0.07	17.0	0.010	0.0024	0.002	0.03	(0.003)
1	IARM 99B	0.005	0.036	0.005	0.0005	0.022	0.094	18.46	0.081	0.095	9.24	4.88	0.0011	(0.005)	0.74	0.012
1	BS 161A	0.004	0.031	0.004	0.0007	0.032	0.22	18.40	0.12	0.14	9.22	4.82	(0.002)	(0.004)	0.65	0.031
2	CT IS0138A	0.002	0.48	0.001	0.006	<0.010	<0.001	39.98	<0.001	.	0.64	<0.001	.	.	0.34	.
1	ECRM 285-2D	0.0018	0.0168	0.0053	0.0025	0.0117	0.0094	18.07	0.0236	0.1067	7.76	4.99	0.0007	.	0.520	.

Number	As	B	Ca	Ce	Mg	O	Se	Sn	Ta	W	Zr	Units
IARM 242A	.	(0.0005)	.	.	.	0.0006	.	(0.001)	0.008	<0.01	.	31 mm Ø x 2 or 18 mm
23X 8001	40 mm Ø x 15 mm
CT 972	Pb: 0.0014	0.28	0.0008	.	.	.	.	30-35 mm Ø x 20-25 mm
SRM 1246	(0.004)	<0.001	Ga: (0.004)	.	(0.003)	.	.	.	.	(0.004)	.	Ag: 0.005 Fe: 46.2
SRM 1246	35 mm Ø x 19 mm
23X DS5	40 mm Ø x 15 mm
CT X17842	30-35 mm Ø x 20-25 mm
BS 800	.	0.0035	.	.	(0.0028)	.	.	.	.	0.02	.	44 mm Ø x 12 mm
23X 8005	40 mm Ø x 15 mm
HH 5157A	44 mm Ø x 12 mm
23X 8002	40 mm Ø x 15 mm
23X 8004	40 mm Ø x 15 mm
23X DS2	40 mm Ø x 15 mm
IARM 24A	(0.009)	.	(0.002)	.	(0.035)	.	31 mm Ø x 2 or 18 mm
IARM 24B	<0.005	(0.001)	.	.	.	0.003	0.19	0.0018	<0.005	<0.04	<0.005	31 mm Ø x 2 or 18 mm
CT 971	Pb: 0.015	0.20	0.026	.	.	.	.	Fe: 62.6 Ag: 0.026
23X DS4	30-35 mm Ø x 20-25 mm
SRM 1230	.	0.0055	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
HH 5179A	32 mm Ø x 19 mm
HH 5179A	41 mm Ø x 12 mm
BS 186A	0.229	(0.002)	.	<0.03	.	41 mm Ø x 12 mm
HH 5196A	38 mm Ø x 12 mm
HH 5196A	44 mm Ø x 12 mm
13X 14935 S *	40 mm Ø x 15 mm * last of stock
IARM 26C	0.004	0.0074	(0.0002)	.	(0.0003)	0.002	.	0.011	(0.002)	0.01	(0.001)	31 mm Ø x 2 or 18 mm
HH 5300A	41 mm Ø x 12 mm
13X 14934	40 mm Ø x 15 mm
SRM 1158	32 mm Ø x 19 mm
IARM 302A *	.	0.0027	.	.	.	(0.003)	.	0.008	.	(0.02)	.	31 mm Ø x 2 or 18 mm * Provisional Analysis
BS 187A	.	0.0022	.	(0.025)	.	0.0029	.	0.003	<0.002	(0.02)	.	41 mm Ø x 12 mm
CT IS0139A	30-35 mm Ø x 20-25 mm
SRM 1247	(0.003)	0.002	Ga: (0.011)	.	.	(0.005)	.	.	.	(0.005)	.	Fe: 57.10 Fe: 26.5
BS 187C	.	(0.0019)	.	.	.	0.0024	.	0.004	(0.002)	.	.	35 mm Ø x 19 mm 44 mm Ø x 12 mm
CT IS0141A	0.0002	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
CT IS0136A	Fe: 52.12
ECRM 299-1D	0.0054	0.0002	.	.	.	.	.	.	.	.	0.1775	30-35 mm Ø x 20-25 mm
ECRM 299-1D	Fe: 54.27
NILAB 501HA D	40 mm Ø x 25 mm
IARM 157B	.	0.001	.	.	.	0.0025	.	0.006	.	0.05	<0.005	38 mm Ø x 20 mm 31 mm Ø x 18 mm
IARM 157B	Fe: 48.0 last
KUT S22	30-35 mm Ø x 18 mm
CT IS0124A	0.167	.	.	.	.	30-35 mm Ø x 20-25 mm
13X 14935	Fe: 50.65
13X 14935	40 mm Ø x 15 mm
13X 14933	40 mm Ø x 15 mm
SRM 1159	31 mm Ø x 19 mm
SRM 1159	Fe: 51.0
IARM 98B	<0.002	0.001	<0.0005	.	0.0040	0.0021	.	0.002	<0.05	(0.02)	<0.01	31 mm Ø x 2 or 18 mm
IARM 99B	.	0.0026	.	.	.	0.0015	.	(0.003)	.	0.016	.	Fe: 52.9
BS 161A	(0.002)	0.0023	(0.0008)	.	.	(0.0004)	.	(0.0015)	(0.03)	(0.008)	(0.002)	31 mm Ø x 2 or 18 mm
BS 161A	38 mm Ø x 12 mm
CT IS0138A	30-35 mm Ø x 20-25 mm
ECRM 285-2D	.	0.0009	.	.	.	.	.	.	.	.	0.0050	Fe: 58.53
ECRM 285-2D	38 mm Ø x 30 or 25

RM HIGH ALLOY STEEL XRF SET

Part Number: BS HAS-12 Set of 12 samples, each 35 - 45 mm Ø x 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 189 N08367	0.030	0.26	0.014	0.0007	0.39	0.61	23.78	20.58	6.19	0.007	(0.0012)	0.047	0.208	0.023	(0.001)	(0.003)	0.092	(0.005)	.
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 Ascology	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	0.005	0.19	0.016	35.86	0.16	0.003	(0.001)	.	0.028	0.0026	<0.002	(0.002)	<0.003	0.001	<0.03	.
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	.	.	0.033	(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	.

RM GRAY IRON

as cast (not chill cast) CONTAINS FREE GRAPHITE

Number	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Sn	Ti	V	Al	As	Co	Units
BS 20 G	3.33	3.02	0.58	0.028	0.029	0.54	0.38	0.086	0.19	0.12	0.012	0.018	0.008	0.004	0.022	47 mm Ø x 13 mm
BS 20 A	3.33	2.80	0.75	0.040	0.029	0.54	0.06	0.034	0.18	0.10	0.033	.	.	.	.	38 mm Ø x 12 mm
BS 20 W	3.27	2.64	0.62	0.045	0.036	0.29	0.082	0.092	0.054	0.086	0.015	0.007	0.004	0.004	0.005	47 mm Ø x 13 mm
BS 20 R	3.25	2.72	0.62	0.047	0.034	0.35	0.096	0.094	0.053	0.104	0.015	0.007	0.005	0.004	0.006	47 mm Ø x 13 mm
BS 20 E	3.24	2.29	0.80	0.042	0.044	0.23	0.156	0.088	0.042	0.093	0.017	0.007	0.006	(0.003)	0.006	47 mm Ø x 13 mm
BS 20 P	3.22	2.62	0.63	0.032	0.044	0.067	0.14	0.079	0.033	0.099	0.018	0.017	0.008	(0.004)	0.018	44 mm Ø x 13 mm
BS 20 K	3.21	2.47	0.68	0.060	0.025	0.56	0.28	0.117	0.21	0.058	0.019	0.013	0.004	0.004	0.013	50 mm Ø x 13 mm
BS 20 B	2.98	1.79	0.84	0.080	0.029	0.10	0.22	0.075	0.031	<0.005	0.042	.	.	.	.	40 mm Ø x 10 mm

DUCTILE / NODULAR IRON

= Class, where 1 = CRM and 2 = RM

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Ce	Co	Mg	Mo	Ti	V
1	SCRM 668/11	3.749	0.678	.	.	1.461	0.754	0.127	0.965	.	0.0232	.	0.0105	0.0233	0.0937	0.208
1	SRM C2423a	3.66	0.91	0.246	(<0.001)	1.59	1.61	0.147	0.322	(0.08)	0.031	(0.02)	0.076	0.159	0.10	0.043
1	SCRM 670/14	3.541	0.358	.	.	2.320	0.942	0.916	0.513	.	0.0095	.	0.0384	0.0121	0.100	0.0249
1	SCRM 666/11	3.371	0.065	.	.	1.77	0.0506	1.648	0.129	.	0.0035	.	0.073	0.1070	0.0860	0.0549
1	SCRM 667/12	3.06	0.236	.	.	2.966	0.550	1.298	0.298	.	0.081	.	0.0400	0.0063	0.0029	0.096
1	SCRM 669/12	3.009	0.563	.	.	2.634	0.235	0.445	0.203	.	0.0415	.	0.0203	0.061	0.0555	0.505
2	BS 28	2.88	0.22	0.034	0.001	2.16	0.009	1.04	0.068	0.020	0.006	0.001	0.095	0.002	0.010	0.006
1	SRM C1137a	2.86	0.52	0.087	0.017	1.15	0.192	2.17	0.643	(0.007)	0.016	.	0.032	0.86	(0.04)	0.019
1	SRM C2424	2.68	0.268	0.041	0.024	3.37	0.125	0.061	0.13	(<0.01)	0.0046	(0.05)	0.006	0.019	0.050	0.083
1	BAS SIMO 1/2	2.62	0.294	0.030	0.008	4.01	0.025	0.033	0.863	0.034	.	0.0022	0.038	0.799	0.006	0.005
1	BAS SIMO 2/1	2.23	0.443	0.030	0.009	4.69	0.009	0.0348	0.900	0.008	0.0017	0.0032	0.014	0.458	0.007	0.007

Number	As	B	La	Nb	Sb	Sn	Te	Units
SCRM 668/11	50 mm x 42 mm x 12 mm
SRM C2423a	.	(0.01)	0.0042	.	.	.	.	32 mm Ø x 19 mm
SCRM 670/14	50 mm x 42 mm x 12 mm
SCRM 666/11	50 mm x 42 mm x 12 mm
SCRM 667/12	50 mm x 42 mm x 12 mm
SCRM 669/12	50 mm x 42 mm x 12 mm
BS 28	.	.	.	0.036	<0.001	<0.001	(0.021)	32 mm Ø x 17 mm
SRM C1137a	32 mm Ø x 19 mm
SRM C2424	.	(0.002)	0.0011	.	.	.	.	32 mm Ø x 19 mm
BAS SIMO 1/2	0.047	.	.	.	.	0.049	.	50 mm x 42 mm x 12 mm
BAS SIMO 2/1	0.041	.	.	.	.	0.042	.	50 mm x 42 mm x 12 mm

Si-Mo CAST IRON

BAS SIMO: CRM 50 mm x 42 mm x 12 mm block CTIF: RM each unit = one pair 43 mm Ø x 5 mm discs

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Ti	V	Co	As	Sn	Ce	Mg
CTIF SiMo-3	3.18	0.61	0.053	(0.0006)	4.02	0.0325	0.066	0.110	0.604	1.15	0.0176	0.0171	0.0296	.	.	.	0.030
CTIF SiMo-1	2.98	0.365	0.013	(0.0015)	4.03	0.035	0.065	0.036	0.752	.	(0.018)	(0.018)	(0.03)	.	.	.	0.019
CTIF SiMo-5	2.94	0.439	0.0282	.	4.31	0.0121	0.194	0.032	0.841	.	0.010	(0.0095)	(0.013)	.	.	.	.
CTIF SiMo-2	(2.85)	0.335	0.0260	(0.001)	3.85	0.036	(0.061)	0.038	1.04	1.51	(0.016)	(0.017)	(0.030)	.	1.04	.	0.072
CTIF SiMo-4	2.70	0.280	0.0211	(0.0015)	4.35	0.0657	(0.029)	0.0845	0.400	(0.038)	0.0171	0.0133	(0.015)	.	.	.	0.100
BAS SIMO 1/2	2.62	0.294	0.030	0.008	4.01	0.025	0.033	0.863	0.799	0.034	0.006	0.005	0.0022	0.047	0.049	.	0.038
BAS SIMO 2/2	2.23	0.443	0.030	0.009	4.69	0.009	0.0348	0.900	0.458	0.008	0.007	0.007	0.0032	0.041	0.042	0.0017	0.014

RM WHITE IRON

limited supply old sample, only certified data on certificate 32 mm Ø x 17 mm

Number	C	Mn	P	S	Si	Cu	Ni	Cr	As	B	Co	Mg	Mo	Te	Ti	V
BS 7	2.99	0.18	0.063	0.018	2.90	0.047	0.41	0.092	0.022	0.035	0.084	0.006	0.021	(0.031)	0.009	0.36

Number	Al	Bi	Ca	Ce	La	Nb	Pb	Sb	Sn	W	Zn	Zr
BS 7	(0.01)	(0.0004)	(0.0005)	(0.002)	(0.002)	0.004	0.005	0.001	0.002	<0.01	(0.002)	0.005

CAST IRON WITH MAGNESIUM

CONTINUED ON THE NEXT PAGE

= Class, where 1 = CRM and 2 = RM

#	Number	C	Si	Mn	P	S	Cu	Ni	Cr	Mg	Te	Al	Ce	Co	Mo	Ti	V
1	BS CC-24	4.48	0.23	0.215	0.016	0.018	0.076	0.26	0.23	0.013	0.023	0.159	<0.005	0.009	1.61	0.190	0.42
1	CKD 249C	4.06	0.49	0.099	0.27	0.0075	0.486	1.21	0.148	0.042	(0.00)	0.032	0.017	0.014	0.011	0.026	0.026
1	CKD 249B	4.06	0.47	0.121	0.26	0.0078	0.474	1.16	0.102	0.040	(0.00)	0.105	0.021	0.013	0.013	0.046	0.019
2	BS 4C	3.82	0.52	0.21	0.003	0.001	0.014	0.068	0.111	0.0002	0.0011	0.003	0.010	0.014	0.105	0.002	0.0005
2	BS CC-13	(3.82)	1.05	0.16	0.019	0.006	0.088	1.60	0.57	0.016	0.004	0.089	0.0018	0.033	1.19	0.014	0.023
1	SCRM 668/11	3.749	1.461	0.678	.	.	0.754	0.127	0.965	0.0105	.	.	0.0232	.	0.0233	0.0937	0.208
1	VS ChG 25	3.74	1.46	0.68	0.0090	0.0035	0.79	0.38	0.25	0.037	.	0.009	.	.	0.253	0.017	0.086
1	SRM C2423a	3.66	1.59	0.91	0.246	(<0.001)	1.61	0.147	0.322	0.076	.	(0.08)	0.031	(0.02)	0.159	0.10	0.043
1	SCRM 670/14	3.541	2.320	0.358	.	.	0.942	0.916	0.513	0.0384	.	.	0.0095	.	0.0121	0.100	0.0249
1	BS 291	3.38	2.30	0.59	0.020	0.011	0.160	0.097	0.104	0.060	.	0.021	.	0.0064	0.030	0.007	0.077
1	SCRM 666/11	3.371	1.77	0.065	.	.	0.0506	1.648	0.129	0.073	.	.	0.0035	.	0.1070	0.0860	0.0549
1	BS CC-26	3.38	0.63	0.115	0.005	0.002	0.76	1.02	0.016	0.045	(0.004)	0.009	0.065	0.043	0.42	(0.001)	<0.003
1	VS ChG 28	3.29	2.22	0.414	0.025	0.015	1.29	0.166	0.127	0.010	.	0.015	.	.	0.0024	0.0041	0.0020
1	BS 291A	3.25	2.28	0.457	0.022	0.020	0.191	0.095	0.098	0.024	.	0.011	.	0.007	0.033	0.008	0.006
1	BS 285	3.21	1.98	0.706	0.044	0.009	0.302	1.33	1.09	0.043	.	.	.	0.0099	0.227	0.053	0.129
1	SCRM 667/12	3.06	2.966	0.236	.	.	0.550	1.298	0.298	0.0400	.	.	0.081	.	0.0063	0.0029	0.096
1	BS CC-30	3.06	0.88	0.275	0.021	0.011	0.070	0.045	0.073	0.042	0.010	0.009	.	0.016	0.016	0.0022	0.008
1	VS ChG 24	3.05	2.50	0.245	0.260	0.0048	0.100	0.87	0.031	0.015	.	0.007	.	.	0.031	0.060	0.0067
1	SCRM 669/12	3.009	2.634	0.563	.	.	0.235	0.445	0.203	0.0203	.	.	0.0415	.	0.061	0.0555	0.505
2	BS CC-9	2.97	2.29	2.04	0.028	0.068	1.21	0.34	0.095	0.0005	(0.004)	0.027	(0.0003)	0.086	0.21	(0.11)	0.31
2	BS CC-10	2.96	2.02	1.76	0.023	0.074	0.23	0.52	0.113	0.0006	(0.002)	0.033	(0.0003)	0.059	0.46	0.15	0.047
1	CKD 245B	2.95	1.59	1.38	0.42	0.035	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	1.58	1.38	0.41	0.039	0.076	0.161	0.166	0.003	(0.018)	0.019	(0.00)	0.003	0.114	0.087	0.073
2	BAS NIRM5	2.93	1.73	1.09	0.126	0.004	0.22	22.1	0.50	0.040	.	.	0.001	.	.	.	.
2	BAS NIRM2	2.91	1.53	2.01	0.100	0.011	5.86	13.88	1.49	0.037	.	.	0.017	.	.	.	.
2	BS 28	2.88	2.16	0.22	0.034	0.001	0.009	1.04	0.068	0.095	(0.021)	0.020	0.006	0.001	0.002	0.010	0.006
1	SRM C1137a	2.86	1.15	0.52	0.087	0.017	0.192	2.17	0.643	0.032	.	(0.007)	0.016	.	0.86	(0.04)	0.019
1	CKD 254	2.78	2.60	4.50	0.043	0.018	0.11	14.3	0.24	0.058	.	(0.05)	0.039	0.06	0.41	(0.005)	(0.005)
1	CKD 246B	2.73	0.76	0.354	0.66	0.020	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	3.37	0.268	0.041	0.024	0.125	0.061	0.13	0.006	.	(<0.01)	0.0046	(0.05)	0.019	0.050	0.083
1	BS CC-21	2.66	2.32	1.37	0.85	0.006	0.013	0.026	2.68	0.0005	(0.009)	0.031	<0.002	0.012	0.13	0.085	0.051
1	CKD 244C	2.57	2.15	0.715	0.027	0.012	0.301	0.344	0.248	0.031	(0.000)	0.071	0.017	0.050	0.059	0.034	0.002
1	CKD 253	2.45	2.28	0.74	0.059	0.008	0.29	23.6	2.95	0.038	.	(0.035)	0.018	0.105	0.01	(0.005)	(0.02)
1	CKD 251	2.25	1.14	1.97	0.015	0.015	0.38	19.7	1.07	0.022	.	(0.02)	0.017	0.09	0.12	(0.005)	(0.02)
2	BAS NIRM1	2.05	3.15	6.72	0.055	0.005	0.20	11.80	0.246	0.021	.	.	0.018	.	.	.	.
2	BAS NIRM7	2.04	3.05	0.71	0.058	0.020	0.52	32.9	3.53	0.019	.	.	0.005	.	0.99	.	.
2	BS 4	2.02	3.44	0.29	0.57	0.23	0.020	5.27	2.11	0.001	(0.007)	0.005	0.004	0.026	1.60	0.037	0.028
2	BAS NIRM4	1.97	3.03	2.37	0.051	0.008	0.52	20.2	3.56	0.014	.	.	0.011	.	.	.	.
2	BAS NIRM8/1	1.34	5.42	1.60	0.109	0.010	0.23	35.2	2.34	0.043	.	.	0.013	.	0.75	.	.
1	VS ChG 26	.	2.98	0.126	0.123	0.0041	0.014	1.52	0.050	0.044	.	0.038	.	.	0.075	0.0026	0.040

#	Number	C	Si	Mn	P	S	Cu	Ni	Cr	Mg	Te	Al	Ce	Co	Mo	Ti	V
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CAST IRON WITH MAGNESIUM CONTINUED FROM THE PREVIOUS PAGE

BAS: 40-50 mm x 37-42 mm x 12 mm BS: 28-34 mm Ø x 17-28 mm CKD 24x: 37 mm x 37 mm x 20 mm CKD 25x: 37 mm Ø x 22 mm
 GBW: 33 mm Ø x 20 mm SCR: 50 mm x 42 mm x 12 mm SRM: 32 mm Ø x 19 mm VS: ~40 mm Ø x ~40 mm

Number	As	B	Bi	Ca	Fe	La	N	Nb	Pb	Sb	Se	Sn	W	Zr
BS CC-24	0.16	(0.0005)	(0.010)	.	.	(0.0004)	(0.0045)	<0.005	0.004	0.29	.	0.11	0.15	0.046
CKD 249C	0.016	0.017	0.004	.	(92.9)	0.004	.	0.011	0.009	0.005	(0.002)	0.002	0.009	0.027
CKD 249B	0.017	0.016	0.006	.	(92.9)	0.006	.	0.013	0.013	0.005	(0.005)	0.007	(0.011)	0.048
BS 4C	0.007	0.0002	.	0.0013	.	0.002	0.008	(0.0005)	(0.004)	0.0012	.	(0.0004)	(0.006)	0.010
BS CC-13	(0.002)	(0.0004)	0.009	(0.0008)	.	(0.0007)	.	.	0.0002	(0.0006)	.	0.030	(0.006)	(0.001)
SCR 668/9	.	.	.	.	.	.	.	.	.	.	.	.	.	.
VS ChG 25	.	.	.	.	.	.	.	.	.	0.052	.	0.017	.	.
SRM C2423a	.	(0.01)	.	.	.	0.0042	.	.	.	.	.	.	.	.
SCR 670/14	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BS 291	0.0045	.	.	0.0017	.	.	0.0060	.	.	.	.	0.024	.	.
SCR 666/11	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BS CC-26	0.017	0.0045	(0.001)	.	.	0.045	(0.008)	<0.003	<0.002	0.003	.	(0.002)	<0.01	<0.002
VS ChG 28	.	.	.	.	.	.	.	.	.	0.015	.	0.0017	.	.
BS 291A	.	(0.0004)	.	(0.002)	.	.	0.0063	.	.	(0.003)	.	0.034	(0.002)	.
BS 285	.	0.0048	.	.	.	.	0.0025	.	0.0121	0.184	.	0.025	0.066	.
SCR 667/12	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BS CC-30	(0.002)	.	.	0.0014	.	.	0.0074	<0.002	.	.	.	0.005	<0.003	<0.002
VS ChG 24	.	.	.	.	.	.	.	.	.	0.009	.	0.077	.	.
SCR 669/12	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BS CC-9	0.056	0.025	(0.002)	0.0003	.	0.0012	.	.	0.0011	0.14	.	0.094	(0.008)	0.004
BS CC-10	0.007	0.011	(0.0002)	0.0001	.	(0.0002)	.	.	0.0007	0.152	.	0.013	(0.006)	(0.003)
CKD 245B	0.006	0.003	0.009	.	(92.5)	(0.00)	.	0.029	0.020	0.052	(0.029)	0.076	0.020	0.004
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
BAS NIRM5	.	.	.	.	.	.	.	0.20	.	.	.	.	.	.
BAS NIRM2	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BS 28	.	.	.	.	.	.	.	0.036	.	<0.001	.	<0.001	.	.
SRM C1137a	.	.	.	.	.	.	.	.	.	.	.	.	.	.
CKD 254	.	.	.	.	.	.	.	0.26	(0.012)	.	.	(0.02)	.	.
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
SRM C2424	.	(0.002)	.	.	.	0.0011	.	.	.	.	.	.	.	questionable delivery
BS CC-21	0.045	0.020	.	.	.	<0.002	(0.0013)	(0.001)	0.004	(0.004)	.	0.006	<0.002	0.025
CKD 244C	0.043	0.086	0.000	.	(92.9)	0.008	.	0.006	.	0.004	(0.000)	0.175	0.052	0.037
CKD 253	.	.	.	.	.	.	.	.	.	.	.	(0.005)	.	.
CKD 251	.	.	.	.	.	.	.	0.10	(0.009)	.	.	(0.01)	.	.
BAS NIRM1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BAS NIRM7	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BS 4	0.070	(0.005)	0.007	(0.0005)	.	(0.002)	.	0.019	0.005	0.005	.	0.015	0.024	0.039 low stock
BAS NIRM4	0.37
BAS NIRM8/1
VS ChG 26	0.031	.	.

Number	As	B	Bi	Ca	Fe	La	N	Nb	Pb	Sb	Se	Sn	W	Zr
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CRM CAST IRON SET

AVAILABLE IN SET/6 ONLY 28 mm Ø x 27 mm

Number	C	Mn	P	S	Cu	Ni	Cr	Mo	V
NCS HS92701-1	3.04	1.75	0.281	0.010	0.088	1.38	0.408	3.92	1.21
NCS HS92701-2	2.40	1.11	0.197	0.017	0.218	1.42	2.11	2.78	0.764
NCS HS92701-3	2.29	1.27	0.145	0.037	0.448	1.02	9.16	1.88	0.54
NCS HS92701-4	1.89	0.84	0.092	0.097	0.850	1.59	18.21	1.42	0.422
NCS HS92701-5	1.54	0.56	0.040	0.064	0.682	0.625	13.94	0.83	0.184
NCS HS92701-6	0.96	0.145	0.012	0.141	1.47	0.051	24.65	0.52	0.029

CRM HIGH CHROMIUM CAST IRON SET

SOLD IN SET/6 ONLY 33 mm Ø x 20 mm

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Nb	Ti	V
NCS HS11716-1	1.63	0.722	0.041	0.076	1.76	0.223	0.366	33.90	0.332	0.161	0.055	0.417
NCS HS11716-2	1.76	1.08	0.093	0.031	0.559	1.52	1.34	10.43	1.49	0.686	0.018	0.059
NCS HS11716-3	2.11	0.522	0.042	0.022	1.11	0.416	0.415	29.82	0.465	0.110	0.045	0.255
NCS HS11716-4	2.37	0.735	0.050	0.021	0.823	1.13	0.541	12.08	0.846	0.215	0.023	0.149
NCS HS11716-5	2.95	0.927	0.133	0.043	0.746	0.651	0.881	15.93	2.17	0.377	0.089	0.107
NCS HS11716-6	3.40	1.95	0.247	0.107	1.37	0.745	2.00	19.09	3.53	0.389	0.136	0.617

CAST IRON CONTINUED ON THE NEXT PAGE

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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	Nb	Sn	Ti	V	Zn
1	VS Chg 4/6	4.24	1.76	0.026	0.0082	0.24	.	.	.	.	.	.	.	.	.	.	.
1	VS Chg 3/6	4.06	0.38	.	0.049	0.47	0.039	.	0.144	.	.	.	.	.	0.15	0.121	.
1	SCRM 672	4.08	0.491	0.242	0.037	0.18	0.068	0.082	0.024	0.008	0.158	0.099	.	0.0018	0.039	0.109	0.0144
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	SCRM 659/8	3.96	1.00	0.025	0.039	1.40	.	.	(1)	.	.	.	.	.	.	.	.
1	11X HPC3	3.77	1.316	1.96	0.0513	1.58	.	.	0.606	(0.018)	0.094	1.561	0.023	0.0585	0.049	0.0608	0.025
1	11X C6	3.76	1.088	0.069	0.0567	0.487	0.890	0.060	0.606	(0.018)	0.094	1.561	0.023	0.0585	0.049	0.0608	0.025
1	11X CC22	3.70	0.690	0.033	0.080	1.82	0.712	0.060	0.319	(0.002)	.	0.021	.	0.012	0.029	0.0087	.
1	11X HPC5	3.68	1.028	0.246	0.223	1.175	.	.	1.42	.	.	.	.	.	.	.	.
1	11X C6U	3.60	0.934	0.057	0.034	0.464	0.87	0.123	0.493	(0.014)	0.086	1.54	0.008	0.061	0.141	0.0622	0.029
1	VS Chg 2/6	3.56	.	0.44	0.079	0.186	0.083	.	0.079	.	.	.	.	.	0.039	0.050	.
1	11X C2	3.54	0.961	0.200	0.086	1.281	0.133	1.006	0.794	0.049	0.113	0.096	0.084	0.065	0.042	0.290	0.0020
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 660/9	3.461	0.406	0.153	0.105	1.699	.	.	.	.	.	.	.	.	.	.	.
1	SCRM 658/10	3.338	0.532	0.187	0.074	1.943	.	.	(1)	.	.	.	.	.	.	.	.
1	VS Chg 1/6	3.34	1.25	0.169	0.039	1.06	0.033	.	0.012	.	.	.	.	.	0.0054	.	.
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	SCRM 674	3.32	1.48	0.011	0.081	0.48	0.101	0.144	0.021	0.004	0.014	0.048	.	0.014	0.023	0.024	0.0187
1	KUT 121	3.32	0.61	0.135	0.17	(1.86)	.	.	.	.	.	.	.	.	.	.	.
1	KUT 205	3.32	0.80	0.025	(0.010)	1.88	0.81	0.61	0.64	.	.	1.79	.	(0.035)	.	.	.
1	KUT 206	3.32	0.75	0.027	(0.010)	1.84	1.01	0.21	0.12	.	.	2.14	.	(0.107)	.	.	.
1	KUT 122	3.31	0.61	0.22	0.20	1.72	.	.	.	.	.	.	.	.	.	.	.
1	KUT 123	3.30	0.69	0.31	0.074	(1.87)	.	.	.	.	.	.	.	.	.	.	.
1	SCRM 663/4	3.28	1.04	0.13	0.024	1.97	.	.	(1)	.	.	.	.	.	.	.	.
1	11X C3	3.27	0.797	0.387	0.152	0.944	0.431	4.14	2.43	(0.015)	0.376	0.235	0.186	0.236	0.071	0.796	0.0111
1	SCRM 665/4	3.25	0.24	1.09	0.053	1.66	.	.	(1)	.	.	.	.	.	.	.	.
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 HPC1	3.22	0.499	0.75	0.0311	2.60	.	.	.	.	.	.	.	.	.	.	.
1	KUT 125	3.20	0.73	0.70	0.019	(1.87)	.	.	.	.	.	.	.	.	.	.	.
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	11X HPC4	3.15	0.804	2.03	0.094	1.08	.	.	1.57	.	.	.	.	.	.	.	.
1	KUT 204	3.15	0.80	0.023	(0.009)	1.79	0.64	1.09	1.22	.	.	1.38	.	(0.215)	.	.	.
1	KUT 127	3.14	0.79	1.55	0.014	1.81	.	.	.	.	.	.	.	.	.	.	.
1	KUT 203	3.14	0.79	0.024	(0.009)	1.78	0.43	1.63	1.79	.	.	0.91	.	(0.16)	.	.	.
1	11X CC21	3.12	0.785	0.0246	0.083	2.19	0.153	0.107	0.351	0.0024	.	0.0357	.	0.0078	0.0259	0.0083	.
1	VS Chg 5/6	3.12	0.70	0.066	0.022	0.63	.	.	0.227	.	.	.	.	.	0.029	0.46	.
1	SCRM 653/4	3.10	0.110	0.023	0.050	1.22	.	.	(1)	.	.	.	.	.	.	.	.
2	BAS NCRM1	3.05	1.22	0.300	0.156	0.95	2.17	0.57	0.55	.	.	1.02	.	.	.	0.03	.
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	Nb	Sn	Ti	V	Zn
1	11X C8	3.03	0.486	0.843	0.189	1.61	0.317	0.320	0.501	0.016	0.174	0.158	(0.082)	0.091	0.115	0.0637	0.007
1	VS Chg 39	3.01	0.82	0.304	0.088	1.45	0.414	1.09	1.08	.	.	0.113	.	.	0.168	0.274	.
2	BS CC-11	3.00	1.18	0.022	(0.024)	1.92	0.14	0.064	0.060	0.029	0.021	0.011	.	0.045	0.011	0.016	.
2	BAS LARM2	(3.0)	(0.3)	(0.05)	(<0.01)	(2.0)	.	.	2.50	0.066	.	0.22	.	0.22	0.33	.	.
2	BAS LARM4	(3.0)	(0.3)	(0.05)	(<0.01)	(2.0)	0.26	.	1.19	0.014	.	1.00	.	0.11	0.17	.	.
2	BAS LARM1	(3.0)	(0.3)	(0.05)	(<0.01)	(2.0)	2.49	0.49	0.50	.	.	.	.	.	0.14	0.11	.
2	BAS LARM5	(3.0)	(0.3)	(0.05)	(<0.01)	(2.0)	.	2.46	.	.	.	0.62	.	0.025	.	0.24	.
2	BAS LARM3	(3.0)	(0.3)	(0.05)	(<0.01)	(2.0)	1.20	1.80	.	0.042	.	.	.	.	.	0.55	.
2	BAS NCRM2	2.97	0.95	0.068	0.119	1.82	1.67	2.10	1.99	.	.	0.36	.	.	.	0.16	.
1	KUT 124	2.97	0.62	0.50	0.051	1.63	.	.	.	.	.	.	.	.	.	.	.
1	SCRM 662/4	2.95	0.76	0.30	0.087	2.33	.	.	(1)	.	.	.	.	.	.	.	.
1	VS Chg 36	2.94	0.454	0.232	0.036	1.50	0.70	0.542	0.476	.	.	0.406	.	.	0.027	0.086	.
1	SCRM 657/8	2.93	0.062	0.100	0.024	3.02	.	.	(1)	.	.	.	.	.	.	.	.
1	SRM C1145a	2.92	0.187	0.215	0.191	0.271	0.46	0.62	0.63	(0.04)	0.058	0.48	.	(0.10)	0.012	0.112	.
2	BS CC-22	2.88	1.84	0.274	0.16	0.74	0.34	0.151	0.98	0.006	0.010	0.022	0.013	0.079	0.012	0.25	.
1	SCRM 671	2.86	0.837	0.106	0.049	0.98	0.047	0.056	0.059	0.038	0.097	0.018	.	0.007	0.090	0.010	0.0004
1	11X C1	2.85	1.262	0.105	0.0383	1.483	0.164	0.696	0.538	0.0193	0.082	0.075	0.170	0.032	(0.14)	0.101	0.0208
1	11X HPC2	2.85	0.775	1.55	0.066	2.19	.	.	2.05	.	.	.	.	.	.	.	.
1	SCRM 664/4	2.84	0.57	0.44	0.112	2.71	.	.	(1)	.	.	.	.	.	.	.	.
1	11X C9	2.82	1.88	0.032	0.0306	1.19	0.299	2.58	1.31	0.005	0.132	0.158	0.062	0.052	0.054	0.475	0.010
1	KUT 201	2.77	0.74	0.024	(0.009)	1.71	0.10	2.47	2.90	.	.	0.13	.	(0.31)	.	.	.
1	SRM C1291	2.67	1.14	0.028	0.032	1.34	0.26	4.34	2.78	.	.	0.32	.	.	.	0.031	.
2	BS CC-16	(2.67)	0.39	0.10	0.045	3.57	0.11	1.94	0.91	(0.004)	0.017	1.33	.	0.005	0.017	0.014	.
1	SCRM 651/4	2.66	0.92	0.249	0.100	0.541	.	.	(1)	.	.	.	.	.	.	.	.
1	SCRM 656/8	2.61	0.823	0.062	0.107	2.59	.	.	(1)	.	.	.	.	.	.	.	.
1	VS Chg 40	2.59	1.56	0.059	0.019	1.60	0.98	1.61	1.47	.	.	0.229	.	.	0.18	0.325	.
1	SCRM 661/4	2.56	0.30	0.84	0.068	2.96	.	.	(1)	.	.	.	.	.	.	.	.
1	11X C7	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	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	11X C5	2.49	0.791	0.097	0.103	1.78	2.71	2.05	1.15	0.006	0.105	0.497	(0.088)	0.021	0.079	0.0537	0.011
1	SCRM 673	2.47	0.133	0.328	0.006	1.72	0.023	0.147	0.037	0.028	0.053	0.006	.	0.0191	0.072	0.059	0.0004
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	SCRM 652/4	2.34	1.19	0.071	0.129	0.878	.	.	(1)	.	.	.	.	.	.	.	.
2	BS CC-17	2.32	0.39	0.20	0.17	3.93	0.11	2.06	0.93	0.004	0.020	1.81	.	(0.004)	0.019	0.012	.
1	SCRM 654/4	2.28	0.74	0.130	0.170	1.635	.	.	(1)	.	.	.	.	.	.	.	.
1	CKD 242B	2.06	0.189	0.044	0.028	2.81	0.040	0.022	0.031	0.042	0.004	1.21	0.009	0.010	0.28	0.46	(0.00)
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	.	0.062	0.007	0.178	0.0006
1	SCRM 655/4	1.90	0.44	0.180	0.076	2.110	.	.	(1)	.	.	.	.	.	.	.	.
1	11X C4	1.89	0.651	0.111	0.138	3.02	0.342	2.41	1.50	0.032	0.0175	0.114	0.072	0.0207	0.091	0.0233	0.0112
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	CKD 241B	1.84	0.060	0.007	0.123	3.15	0.011	0.021	0.683	0.003	0.004	0.61	0.003	(0.003)	0.001	0.080	0.000
1	VS Chg 6/6	.	.	0.71	.	.	.	.	.	.	.	.	.	.	.	.	.
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	Nb	Sn	Ti	V	Zn

CAST IRON CONTINUED FROM THE PREVIOUS PAGE

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

Number	As	B	Bi	Ca*	Ce	La	Mg	N	Pb	Sb	Se	Te	W	Zr	Units
VS ChG 4/6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm
VS ChG 3/6	0.020	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm
SCRM 672	0.004	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 12 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
SCRM 659/8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	50 mm x 42 mm x 12 mm
11X HPC3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
11X C6	0.0499	0.0053	0.005	.	.	.	.	0.0152	0.006	0.037	0.007	.	.	0.005	40 mm Ø x 15 mm
11X CC22	0.009	.	.	.	.	.	.	.	.	.	.	.	.	.	45 mm Ø x ~6 mm
11X HPC5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 17 mm
11X C6U	0.052	0.0052	0.022	.	.	.	.	(0.0034)	(0.0007)	0.0024	0.0179	0.0165	0.016	0.0161	40 mm Ø x 17 mm last
VS ChG 2/6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm
11X C2	0.029	0.0072	0.007	.	.	.	.	0.0057	0.015	0.068	(0.009)	.	0.098	.	40 mm Ø x 15 mm
VS ChG 27	.	.	.	.	.	.	.	.	.	0.029	.	.	.	.	~40 mm Ø x ~40 mm
SCRM 660/9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	50 mm x 42 mm x 12 mm
SCRM 658/9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	50 mm x 42 mm x 12 mm
VS ChG 1/6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm
VS ChG 35	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm
KUT 120	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
SCRM 674	0.028	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 12 mm
KUT 121	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 205	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 206	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 122	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 123	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
SCRM 663/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	50 mm x 42 mm x 12 mm
11X C3	0.120	(0.0028)	(0.002)	.	.	.	.	.	(0.008)	0.264	0.0026	0.0024	(0.054)	.	40 mm Ø x 15 mm
SCRM 665/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	50 mm x 42 mm x 12 mm
BAS NCRM3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 12 mm
11X HPC1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
KUT 125	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 126	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 202	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
11X HPC4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
KUT 204	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 127	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 203	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
11X CC21	0.0101	.	.	.	.	.	.	.	.	.	.	.	.	.	45 mm Ø x 6 mm
VS ChG 5/6	0.044	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm
SCRM 653/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	50 mm x 42 mm x 12 mm
BAS NCRM1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 12 mm

Number	As	B	Bi	Ca*	Ce	La	Mg	N	Pb	Sb	Se	Te	W	Zr	Units
11X C8	0.077	0.0409	0.041	.	.	.	.	0.0075	0.023	0.068	(0.073)	0.0043	0.0175	.	40 mm Ø x 15 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
BAS LARM2	0.044	.	.	.	0.008	.	.	.	0.007	.	.	.	.	.	40 mm x 37 mm x 12 mm
BAS LARM4	.	.	.	.	0.008	.	.	.	0.018	.	.	.	.	.	40 mm x 37 mm x 12 mm
BAS LARM1	.	0.006	0.011	.	0.005	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 12 mm
BAS LARM5	0.018	0.0012	0.0010	.	.	.	.	.	0.0005	.	.	.	.	.	40 mm x 37 mm x 12 mm
BAS LARM3	0.092	0.003	0.022	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 12 mm
BAS NCRM2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 12 mm
KUT 124	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
SCRM 662/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	50 mm x 42 mm x 12 mm
VS ChG 36	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm
SCRM 657/8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	50 mm x 42 mm x 12 mm
SRM C1145a	(0.03)	(0.02)	.	.	.	.	.	.	0.0012	(0.04)	.	.	.	(0.002)	32 mm Ø x 19 mm
BS CC-22	0.091	0.044	.	.	<0.002	<0.002	<0.001	(0.012)	0.001	0.059	.	0.034	0.012	0.026	32 mm Ø x 17 mm
SCRM 671	0.022	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 12 mm
11X C1	0.018	0.052	0.0060	.	.	.	.	0.0044	0.011	0.064	0.010	.	.	0.005	40 mm Ø x 15 mm
11X HPC2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
SCRM 664/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	50 mm x 42 mm x 12 mm
11X C9	0.046	0.0058	(0.011)	.	.	.	.	.	0.0044	0.152	0.0091	0.015	0.286	.	40 mm Ø x 17 mm
KUT 201	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
SRM C1291	.	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
BS CC-16	(0.005)	0.0005	(0.007)	(1)	(0.0004)	(0.0001)	(0.0004)	.	0.0002	(0.001)	.	0.006	(0.004)	(0.002)	32 mm Ø x 17 mm
SCRM 651/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	50 mm x 42 mm x 12 mm
SCRM 656/8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	50 mm x 42 mm x 12 mm
VS ChG 40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm
SCRM 661/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	50 mm x 42 mm x 12 mm
11X C7	0.0159	0.0097	0.0137	.	.	.	.	0.025	0.0106	0.025	.	.	0.066	(0.003)	40 mm Ø x 15 mm
VS ChG 37	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm
11X C5	0.0225	0.0172	0.006	.	.	.	.	.	0.023	0.037	0.0046	0.005	(0.083)	(0.004)	40 mm Ø x ~17 mm
SCRM 673	0.044	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 12 mm
VS ChG 38	0.035	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm
SCRM 652/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	50 mm x 42 mm x 12 mm
BS CC-17	(0.009)	0.0005	(0.01)	1	(0.002)	(<0.0002)	(0.0004)	.	(0.0002)	(0.002)	.	(0.005)	(0.004)	(<0.001)	32 mm Ø x 17 mm
SCRM 654/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	50 mm x 42 mm x 12 mm
CKD 242B	0.009	0.005	0.020	.	(0.00)	0.000	0.000	0.0092	0.027	0.005	.	(0.031)	(0.002)	(0.000)	37 mm x 37 mm x 20 mm
SCRM 675	0.035	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 12 mm
SCRM 655/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	50 mm x 42 mm x 12 mm
11X C4	0.0103	0.018	0.0050	.	.	.	.	.	0.0155	0.011	(0.0030)	0.0010	0.122	0.006	40 mm Ø x 17 mm Cd: 14*
CKD 242A	0.015	0.008	(0.015)	.	(0.00)	(0.00)	0.000	.	(0.012)	0.007	.	(0.08)	(0.007)	(0.000)	37 mm x 37 mm x 20 mm
CKD 241B	0.002	0.001	0.000	.	0.000	0.000	0.000	0.0053	0.001	0.139	.	(0.000)	0.001	0.000	37 mm x 37 mm x 20 mm
VS ChG 6/6	0.091	~40 mm Ø x ~40 mm

Number	As	B	Bi	Ca*	Ce	La	Mg	N	Pb	Sb	Se	Te	W	Zr	Units
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ALLOYED CAST IRON

= Class, where 1 = CRM and 2 = RM

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Pb	Sn	Ti	V
2	BAS NCRM5	3.70	0.27	0.025	0.015	1.15	0.204	6.74	10.44	.	0.10	.	.	.	0.06
1	SRM C1292	3.47	0.55	0.049	0.016	0.59	0.36	5.04	11.4	.	0.25	.	.	.	0.041
2	BAS CCRM5/1	3.46	0.32	0.029	0.019	0.25	0.23	0.29	29.09	0.17	0.54	.	.	0.026	0.063
1	11X 15309	3.273	1.196	0.0340	0.0110	0.562	1.142	2.05	23.30	.	0.982	.	.	.	0.096
1	11X AR5	3.10	0.57	0.0299	0.0316	1.70	0.032	5.16	9.73	(0.018)	0.12	(0.003)	.	0.0147	0.0586
1	SRM C1290	3.04	0.66	0.030	0.013	0.971	0.065	0.917	30.5	.	(0.041)	.	.	.	0.442
2	11X S/2 Cr2	3.03	0.53	0.14	0.046	1.23	0.23	18.0	2.35	.	.	.	.	.	.
2	11X S/2 Cr5	3.01	0.83	0.14	0.042	2.51	0.24	19.5	3.99	.	.	.	.	.	.
2	BAS CCRM4/1	3.00	0.60	0.044	0.039	0.56	0.58	0.62	22.42	<0.005	1.19	.	.	0.027	0.092
2	11X 20003	2.91	1.53	0.174	0.007	3.03	0.52	17.8	2.53	.	.	.	.	.	.
2	11X 20001	2.90	0.58	0.005	0.143	1.01	0.01	21.4	1.50	.	.	.	.	.	.
1	11X 0331-1	2.831	1.353	0.111	0.137	2.10	7.68	13.75	2.022	(0.030)	0.111	0.030	0.048	0.094	.
2	11X S/2 Cr1	2.83	1.68	0.31	0.011	2.85	0.02	16.5	2.48	.	.	.	.	.	.
2	11X S/2 Cr4	2.82	0.97	0.049	0.010	2.59	0.24	20.7	1.10	.	.	.	.	.	.
1	11X AR 1	2.76	1.24	0.044	0.062	1.79	.	4.1	7.7	.	.	.	.	.	.
1	11X 0331-5	2.73	0.893	0.164	0.217	2.93	7.74	14.52	0.582	0.018	0.117	0.0056	0.121	.	.
2	11X 15310	2.71	1.45	0.051	0.0278	0.892	2.64	5.66	21.22	.	0.980	.	.	.	0.071
1	11X 0331-6	2.71	1.144	0.0473	0.0197	2.05	6.57	14.03	1.13	.	0.011	(0.0006)	(0.0020)	0.025	0.0106
2	11X 20002	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
2	11X S/2 Cr6	2.65	0.81	0.254	0.009	3.59	0.27	18.0	4.39	.	.	.	.	.	.
2	11X S/3 Cr1	2.61	0.7	0.046	0.011	2.52	0.19	31.7	0.15	.	.	.	.	.	.
1	11X 0331-2	2.54	1.32	0.062	0.126	2.78	7.42	15.61	1.50	0.049	0.085	0.029	0.0220	.	.
1	11X S/1 Cr5	2.54	0.75	0.107	0.035	1.27	6.31	16.3	3.36	.	.	.	.	.	.
2	11X S/3 Cr4	2.51	0.65	0.081	0.056	2.37	0.23	29.5	5.30	.	.	.	.	.	.
2	BAS NIRM3	2.51	0.51	0.208	0.096	2.21	1.00	17.8	2.43	.	.	.	.	.	.
2	11X S/3 Cr3	2.49	0.66	0.053	0.050	2.44	0.23	29.4	4.06	.	.	.	.	.	.
2	BAS NIRM6	2.44	3.97	0.217	0.062	2.43	0.10	26.7	1.7	.	0.45	.	.	.	.
2	BAS CCRM3/1	2.42	0.85	0.068	0.059	0.82	1.21	1.28	17.48	0.084	1.65	.	.	0.021	0.022
2	11X S/3 Cr2	2.30	0.85	0.045	0.010	2.59	0.21	31.0	2.62	.	.	.	.	.	.
1	11X 15295	2.285	1.01	0.085	0.094	1.057	0.238	0.350	24.87	.	0.518	(0.010)	(0.045)	.	0.144
1	11X 15294	2.25	0.551	0.100	0.050	0.409	0.126	1.84	29.32	.	0.630	0.0067	0.070	.	0.124
1	11X 0331-3	2.10	1.08	0.040	0.061	2.46	6.49	18.03	2.57	0.055	0.061	0.0112	0.0091	.	.
2	BAS CCRM2/1	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 CCRM1/1	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	CKD 250	1.12	0.32	0.014	0.024	0.55	0.22	17.7	0.61	(0.01)	0.005	.	(0.009)	.	.

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Pb	Sn	Ti	V
	Number	Ce	Co	Nb	W	Zr	Units								
	BAS NCRM5	.	.	.	.	.	40 mm x 37 mm x 12 mm								
	SRM C1292	.	.	.	.	.	32 mm Ø x 19 mm								
	BAS CCRM5/1	.	.	.	.	.	40 mm x 37 mm x 12 mm								
	11X 15309	.	0.068	.	(0.057)	.	40 mm Ø x ~15 mm								
	11X AR5	.	.	0.030	.	.	40 mm Ø x 15 mm								
	SRM C1290	.	.	.	.	.	32 mm Ø x 19 mm								
	11X S/2 Cr2	.	.	.	.	.	40 mm Ø x 15 mm								
	11X S/2 Cr5	.	.	.	.	.	40 mm Ø x 15 mm								
	BAS CCRM4/1	.	.	.	.	.	40 mm x 37 mm x 12 mm								
	11X 20003	.	.	.	.	.	40 mm Ø x 15 mm								
	11X 20001	.	.	.	.	.	40 mm Ø x 15 mm								
	11X 0331-1	.	0.154	.	.	.	40 mm Ø x ~15 mm								
	11X S/2 Cr1	.	.	.	.	.	40 mm Ø x 15 mm								
	11X S/2 Cr4	.	.	.	.	.	40 mm Ø x 15 mm								
	11X AR 1	.	.	.	.	.	40 mm Ø x 12 mm last of stock								
	11X 0331-5	.	.	.	.	.	40 mm Ø x ~15 mm								
	11X 15310	.	0.0709	.	0.137	.	40 mm Ø x ~15 mm								
	11X 0331-6	.	.	.	.	<0.005	35 mm Ø x 6 mm								
	11X 20002	.	.	.	.	.	40 mm Ø x 15 mm								
	BAS NCRM4	.	.	.	.	.	40 mm x 37 mm x 12 mm								
	11X S/2 Cr6	.	.	.	.	.	40 mm Ø x 15 mm								
	11X S/3 Cr1	.	.	.	.	.	40 mm Ø x 15 mm								
	11X 0331-2	.	.	.	.	.	40 mm Ø x 13 mm								
	11X S/1 Cr5	.	.	.	.	.	40 mm Ø x 15 mm								
	11X S/3 Cr4	.	.	.	.	.	40 mm Ø x 15 mm								
	11X S/3 Cr6	.	.	.	.	.	40 mm Ø x 15 mm								
	BAS NIRM3	0.007	.	0.09	.	.	40 mm x 37 mm x 12 mm								
	BAS NIRM6	0.003	.	.	.	.	40 mm x 37 mm x 12 mm								
	BAS CCRM3/1	.	.	.	.	.	40 mm x 37 mm x 12 mm								
	11X S/3 Cr2	.	.	.	.	.	40 mm Ø x 15 mm								
	11X 15295	.	0.542	.	(0.20)	.	40 mm Ø x 17 mm								
	11X 15294	.	0.179	.	0.45	.	40 mm Ø x ~15 mm								
	11X 0331-3	.	.	.	.	.	40 mm Ø x 13 mm								
	BAS CCRM2/1	.	.	.	.	.	40 mm x 37 mm x 12 mm								
	BAS CCRM1/1	40 mm x 37 mm x 12 mm								
	CKD 250	.	0.085	0.00	.	.	37 mm Ø x 22 mm								

Number	Ce	Co	Nb	W	Zr	Units
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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 6134	3.70	1.60	0.25	0.030	<0.01	0.020	2.00	0.040	.	.	.	.	.	.	.
CTIF 8532	3.7	2.6	0.288	0.05	.	0.0443	0.888	0.04	.	.	.	0.0303	0.02	0.07	.
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 6135	3.6	0.9	0.38	0.0130	(0.003)	0.0219	1.98	0.04	(0.006)	0.037	.	.	0.007	0.0155	.
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 2705	3.43	1.09	0.51	0.023	.	.	0.42	0.22	.	.	.	.	.	.	.
CTIF NH7	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 4500	3.38	1.97	0.60	0.059	(0.002)	.	1.45	0.014	0.033	0.065	.	.	.	.	.
CTIF 5781	3.35	2.50	0.26	0.030	(0.0025)	<0.01	0.83	0.040	.	.	.	.	.	.	.
CTIF F018	3.25	1.33	0.52	1.11	0.132	0.09	0.19	0.087	.	.	0.16	0.15	0.17	0.17	.
CTIF NiMo1	3.22	2.585	0.200	0.0590	(0.0030)	0.376	2.165	0.0353	.	0.0205	0.457	0.0020	0.0190	0.0169	.
CTIF FT3	3.2	1.55	0.345	0.063	0.051	0.015	0.092	0.685	.	.	.	.	0.2	0.016	.
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 4497	3.16	2.66	0.600	0.043	(0.0025)	0.048	1.20	0.040	.	.	.	0.094	0.030	0.44	.
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 7160	3.1	2.4	0.57	0.05	(0.001)	0.08	1.0	(0.1)	(0.02)	0.09	.	.	0.013	0.018	.
CTIF FL6	3.1	1.4	0.6	0.012	0.18	0.079	1.03	0.167	.	0.028	0.50	0.005	0.15	0.033	.
CTIF FL10	3.1	1.3	0.85	0.323	0.066	0.104	0.10	(0.07)	(0.03)	.	0.0335	0.028	0.045	0.048	(0.02)
CTIF FPA 1	3.090	0.0300	0.100	0.0022	0.0009	0.0622	0.0450	0.0710	.	0.0097	0.0109	.	0.0010	0.0010	.
CTIF NR 8S	3.05	1.41	4.39	0.124	.	0.071	14.20	0.191	.	.	.	.	.	.	.
CTIF 5037	3.04	3.40	0.76	0.043	(0.0025)	.	0.64	0.014	.	.	.	.	0.029	.	.
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 8018	3.0	3.0	0.7	0.07	(0.0015)	0.08	0.127	0.09	0.02	.	.	0.07	0.06	0.39	.
CTIF 3601 B	3.0	2.1	0.35	0.037	(0.005)	0.019	1.08	0.029	.	.	.	.	0.016	(0.005)	.
CTIF PAL 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	.	.	.	.	.	.	.
Number	C	Si	Mn	P	S	Cu	Ni	Cr	Al	Co	Mo	Sn	Ti	V	W
CTIF NH1	2.98	1.35	0.90	0.060	0.105	1.99	1.38	0.83	.	.	1.45	.	.	.	.
CTIF NH8	2.98	0.80	0.57	0.052	0.076	0.065	8.16	5.03	.	.	0.125	.	.	.	.
CTIF NR 3S	2.92	2.91	0.77	0.024	.	0.33	24.63	3.05	.	.	.	.	.	.	.
CTIF FT1	2.9	2.12	0.71	0.12	0.025	0.012	0.11	0.057	.	.	.	0.067	0.19	0.525	.
CTIF NR 8L	2.89	1.70	5.19	0.054	0.030	0.075	13.33	0.165	.	.	.	.	.	.	.
CTIF NH4	2.84	0.49	0.28	0.12	0.022	0.09	3.60	2.46	.	.	0.30	.	.	.	.
CTIF 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 6736	2.8	1.6	0.65	0.012	(0.002)	0.0258	1.7	0.03	.	.	.	.	0.008	(0.03)	.
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 5783	2.55	2.31	0.195	0.027	(0.0025)	0.110	1.23	0.054	.	0.0074	.	.	0.016	0.013	.
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 4S	2.47	4.87	1.71	0.145	.	0.63	18.30	1.50	.	.	.	.	.	.	.
CTIF FCR4	2.47	1.40	2.05	0.097	0.066	1.32	0.571	24.2	.	.	2.16	.	.	.	.
CTIF FCR1	2.46	0.48	0.63	0.019	0.007	0.031	1.30	18.71	.	.	1.41	.	.	.	.
CTIF 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	.	0.210	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 NR 4G	2.3	5.6	1.72	0.11	.	0.64	21.30	1.40	.	.	.	.	.	.	.
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 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 F01	2.02	3.18	0.71	0.112	0.074	0.036	0.120	0.090	.	.	0.032	0.38	0.018	0.019	.
CTIF FCR Ni2	2.02	1.50	0.61	0.185	0.024	.	13.05	29.00	.	.	.	.	.	.	.
CTIF NR Cu3	1.94	3.12	0.60	0.046	0.016	8.05	13.3	3.50	.	.	.	.	.	.	.
CTIF NR 6S	1.82	2.44	0.99	0.019	.	0.03	30.75	1.06	.	.	.	.	.	.	.
CTIF NR 5L	1.77	2.99	1.207	0.037	0.083	0.48	33.89	0.27	.	.	.	.	.	.	.
CTIF NR 6L	1.76	2.07	0.70	0.031	0.063	0.020	30.37	3.49	.	.	.	.	.	.	.
CTIF NR 5S	1.67	1.97	1.23	0.035	.	0.50	27.05	0.24	.	.	.	.	.	.	.
CTIF FCR6	1.44	0.76	1.47	0.201	0.086	0.480	0.188	30.84	.	.	0.455	.	.	.	.
CTIF FCR Ni1	1.27	1.63	0.71	0.41	0.06	0.02	16.50	26.20	.	.	.	.	.	.	.
Number	C	Si	Mn	P	S	Cu	Ni	Cr	Al	Co	Mo	Sn	Ti	V	W

CAST IRON MUSHROOMS

CONTINUED FROM THE PREVIOUS PAGE

Number	As	B	Bs	Bi	Ce	N	Nb	Pb	Sb	Te	Zn
CTIF F019	0.0005	.
CTIF F012
CTIF 6134	<0.03	.	.	.	.	.	.
CTIF 8532	<0.025	.	.	.	.	.	.
CTIF F08
CTIF 6135
CTIF FCR7
CTIF F06
CTIF F010
CTIF NH3
CTIF F011
CTIF 2705
CTIF NH7
CTIF FCR5
CTIF FT2-1
CTIF 4500	0.028	.	.	.	.	.	.
CTIF 5781
CTIF F018
CTIF NiMo1
CTIF FT3
CTIF F05
CTIF 4497
CTIF NH9
CTIF NR Cu1
CTIF 7160	0.009	.	.	.	0.02	.	.	.	.	.	.
CTIF FL6	.	0.008	.	.	.	.	.	.	.	.	.
CTIF FL10	(0.022)	.	(0.012)	(0.004)	.	.	(0.018)	(0.002)	(0.032)	(0.001)	(0.029)
CTIF FPA 1	0.0109	.	.	.	.	0.0125	.	.	.	.	.
CTIF NR 8S
CTIF 5037
CTIF F017
CTIF 8018	(<0.02)	.	.	.	(0.01)	.	.
CTIF 3601 B	(<0.002)	.	.	<0.05
CTIF PAL 1
CTIF NR 3L
Number	As	B	Bs	Bi	Ce	N	Nb	Pb	Sb	Te	Zn
CTIF NH1
CTIF NH8
CTIF NR 3S
CTIF FT1
CTIF NR 8L
CTIF NH4
CTIF F04
CTIF FCR2
CTIF PL5	.	(0.002)	.	(0.0005)	.	.	.	.	.	.	.
CTIF 6736
CTIF FCR Ni3
CTIF NH6
CTIF F09
CTIF PL4	(0.05)	.	.	(0.003)	.	0.007	.	.	.	.	.
CTIF NR 1S
CTIF 5783	0.0015	.	.	.	.	.	.	.	.	.	.
CTIF NR 1L
CTIF NH2
CTIF NR 4S
CTIF FCR4
CTIF FCR1
CTIF F07
CTIF NR 4L
CTIF NR 2S
CTIF NH5
CTIF NR 4G
CTIF PL3	0.008	.	.	.	.	.
CTIF PL1
CTIF F01
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

ALLOY	NUMBER	ALLOY	NUMBER	ALLOY	NUMBER
1.2344	ECRM 271-1D	2.25Cr 1Mo	IARM 36B	321	BS 321A
1.25Cr 0.5Mo	IARM 35H	201	SRM 1297	321	BS 321C
1.4765	ECRM 299-1D	203	BS 203MN	321	BS 85D
1.8550	ECRM 129-3	20Cb3	BS 187A	321	IARM 6F
1005	12X LA 6	20Cb3	CT 20 Cb-3	321	IRSID 1821
1005	BS LC-6	20MoCr4	ECRM 197-1D	321	SS 465/1
1005	RM Fe 1	2101	IARM 292A	321	SRM 1171
1005	ECRM 064-1D	21Cr6Ni9Mn	CT ISO129A	321	IARM 6F
1005	IMZ 110	2205	BS 318	321	IARM 6G
1005	NCS HS11703-1	2205	IARM 212C	321 - Ti	IMZ 152
1005	SRM 1765	2507	IARM 301A	330	IARM 7B
1005	SRM 1766	253 MA	BS 253	3310	BS 1972
1005	SS 111	254SMO	IARM 302A	347	BS 347A
1006	BS XCCS	301	IARM 289A	347	BS 347B
1008	ECRM 057-2D	301	IRSID 1819	347	BS 87F
1009	IMZ 71	302	IARM 241C	347	IARM 8B
100C6	IRSID 1744	302	NCS HS15751	347	IARM 8C
100C6	IRSID 1747	302 HQ	IARM 234B	347	IARM 8D
1010	IMZ 111	303	BS 80F	347	IARM 8E
1010	IRSID 1665	303	CT 303	347 MOD	CT X12126
1011	IMZ 73	303	IARM 1C	348	SRM 1172
1017	IMZ 112	303	IARM 1D	35MV7	IRSID 1750
1017	IRSID 1664	303	SS 467/1	405	SRM 1295
1018	BS 2931A	303 Se	IARM 253A	409 + Cr	NCS HS20743
1018	IARM 28i	304	BS 9722	410	BS 0021
1018	ECRM 087-1D	304	BS CA304-1	410	BS 0022
1020	BS 57F	304	BS CA304-2	410	BS 410A
1030	IARM 209C	304	BS CA304-3	410	BS 410B
1033	IRSID 1663	304	CT 304	410	CT 410
1035	BS 4931	304	IARM 2G	410	CT X53736
1035	BS 4931	304 + N	BS 81N	410	IARM 9C
1039	IRSID 1637	304 HN	CT X25627	410 + Mo	ECRM 296-1D
1040	BS 3941	304L	BS 81P	410 + Mo	IMZ 161
1040	IARM 210B	304L	BS SS3951	410CB	CT X64417
1040	IRSID 1657	304L	BS SS3952	410CB	CT X64421
1042	IRSID 1656	304L	ECRM 287-1D	410CB	CT X66887
1043	IRSID 1652	304L	ECRM 292-1D	410CB	CT X68882
1045	BS 2972	304L	IARM 162B	410CB	CT X68890
1045	BS 3942	304L	IRSID 1820	410M	CT X23576
1045	BS 56E	304L	SS 463/1	4118	12X 353
1045	IPT 503	305	13X 12855	4130	IARM 143D
1050	IARM 254A	305	CT 305	4130	SRM 1225
1069	ECRM 059-2D	305	CT X17173	4130H	IPT 501
1078	ECRM 056-2D	305	CT X52353	4140	BS 1962
1078	SRM 1224	305	CT X63137	4140	BS 59C
1090	SS 602/2	305	ECRM 297-1D	4140	IARM 30G
1095	BS 64C	309	BS 82D	4140 + Bi	BS 4140A
1095	SRM 1227	309	BS 82E	4140 + Bi	BS 4140B
1117	BS 3993	309	IARM 3C	4142 + Se	BS 4142SE
1117	BS 65C	310	BS 83D	4150 + Bi & S	BS 4150MOD
1117	IARM 29C	310	BS 83F	41L50	BS 72B
1117	IARM 29D	310	BS 83G	4150 +S	BS 42
1140 +P	BS 52D	310	BS 9841	4150 +S	BS 42A
1141	BS 66B	310	BS 9842	416	BS 90F
1144	BS 1144	310	IRSID 1824	416	CT 416
1144	IARM 199B	310	SS 464/1	416	IARM 10C
11L17	BS 75F	314	IMZ 165	416	SRM 1223
1211	SRM C1221	314	IMZ 166A	416 Se	BS 151
1215	BS 66K	316	BS 316A	41CAD7	IRSID 1749
1215	BS 66L	316	CT 316	41L40	BS 70B
1215	IARM 206A	316	JK 27A D	42	CT ISO138A
12L14	BS 74C	316	NILAB 500HA D	42	CT ISO139A
12L14	IARM 183B	316	SRM 1155	420	BS 98
12L14	IARM 183c	316L	BS 84J	420	BS SS4951
12Mn18Cr	BS 193	316L	BS CA316-2	420	BS SS4952
1345	BS XCCV	316L	BS CA316-3	420	ECRM 272-1D
13-8PH	CT X92834	316L	BS CA316-4	420	IARM 154B
13-8PH	BS 184	316L	ECRM 284-2D	420	SS 469
13-8PH	BS 184A	316L	IARM 163B	420F	BS 152
13-8PH	IARM 21C	316L	IARM 163C	420/60	IARM 323A
1513	IMZ 76	316L	SS 466/2	422	IARM 205B
1526 MOD	SRM 1269	316M	CT 689	422	IARM 205C
1533	IMZ 114	317L	BS 317L	430	IARM 11C
1541	IRSID 1648	317L	BS 9941	430	BS 91F
1544	IRSID 1644	317L	BS 9942	430	NCS HS20742
1552 Carbon Steel	12X LA 3	317L	IARM 153B	430F	BS 153
15-5PH	BS 185A	321	13X 12853	430F	BS 154
15-5PH	BS 9621			430F	IRSID 1823
15-5PH	BS 9622			431	BS 92B
15-5PH	ECRM 273-1D			431	CT 836361
15-5PH	IARM 22B			431	IARM 12B
17-4PH	13X PH 2			431	SRM 1219
17-4PH	BS 17-4PHA			431M	CT X64950
17-4PH	BS 17-4PHB			4320	BS 3961
17-4PH	IARM 23C			4330 MOD	BS 4330V
17-4PH	SRM C2400			4340	BS 60C
17-7PH	BS 192			4340	BS 60D
17-7PH	BS 192A			4340 MOD	BS 4340M
17-7PH	IARM 152A			440C	BS 93E
17-7PH	IARM 152B			440C	IARM 13C
182FM	BS 150			440F	BS 155
18Cr2Ni12Mn	CT ISO035A			440F Se	BS 156
2.25Cr 1Mo	IARM 36A			440FM	CT 831991
				446	BS 94C

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

ALLOY	NUMBER	ALLOY	NUMBER	ALLOY	NUMBER
446	IARM 14B	D-7	14X HS 9	Nitriding	BS 68D
4615	BS 3962	Duplex	ECRM 298-1D	Nitronic 40	BS 190
4615	BS 51E	E52100	BS 2952	Nitronic 40	IARM 19B
4620	BS 4620	E52100	BS 53E	Nitronic 50	BS 180A
4620	BS 51F	E52100	BS 53G	Nitronic 50	IARM 17C
4620	IARM 33C	E52100	IARM 49C	Nitronic 60	BS 181A
4620	IARM 33D	E52100 + Bi	BS 53MOD	Nitronic 60	IARM 18C
4820	IARM 155C	E6150	IARM 34A	NMS 100	IARM 214A
5160	IMZ 116	E6150	IARM 34B	NMS 140	IARM 295A
55SC6	IRSID 1748	E9310	IARM 156B	NMS J38	IARM 294A
5Cr 0.5Mo	IARM 37B	Elect./ Magnetic	SRM 1159	NMS MDC	IARM 296A
6150	BS 4941	Electrolytic	SRM 1265a	O-1	BS 35D
6418	BS 6418	F-1	IARM 229A	O-1	CT 01
6418	BS 69B	F-11	BS 45A	O-2	CT 834167
6526	BS 9-4-30	F-11	BS 1981	O-6	BS 41
6F4	CT X34865	F-2	CT X27081	O-6	BS 41A
709	CT X67975	F-2	CT X35568	O-6	IARM 45A
722	IARM 321A	F-22	BS 1982	P-6	BS 1972
75S	IARM 322A	F-22	BS 46A	P-20 + Al	BS 68D
8620	BS 1931	F-22	SRM 1270	PH13-8 Mo	BS 184A
8620	BS 2992	F-22 + Cr	HRT FE2009-N	RA330	BS 86F
8620	BS 61C	F-5	BS 47A	S-1	BS 33A
8620	IPT 502	F-5	BS 47B	S-1	BS 33B
8620	IRSID 1746	F-9	BS 48A	S-1	BS 33D
8620 + Bi	BS 8620A	F-91	BS 9905	S-1	BS 33E
8620 + Bi	BS 8620B	Ferralium 255	IARM 239B	S-1	IARM 46A
8630	BS 1951	Glass Seal 18	CT 816960	S-1	IARM 46B
86L20	BS 73B	Glass Seal 18	CT X67514	S-5	BS 38C
86L20	IARM 182A	Greek Ascoloy	BS 183A	S-5	IARM 47A
86L20	IARM 182B	Greek Ascoloy	IARM 20B	S-5	IARM 47B
8740	BS 67C	Greek Ascoloy	IARM 20C	S-7	BS TS7
8740	IARM 252A	H-10	BS 49	S-7	IARM 259A
8740	IARM 252C	H-11	ECRM 276-2D	S-7	SRM 1772
8822	BS 8822	H-11	IARM 255A	SA213-T22	IMZ 159
9310	BS 58E	H-11	IMZ 173	SA213-T22	IMZ 160
9310	BS 58C	H-13	CT H13	SA213-T22	IMZ 169
9Cr 1Mo	IARM 38B	H-13	IMZ 174	SA387-P11	IRSID 1727
A-2	BS 36D	H-19	BS H-19	STA 361	IARM 268B
A-2	CT A2	HC 250+V	SRM C1290	T-1	14X HS 1
A-2	IARM 39B	High Perm	CT IS0124A	T-1	14X HS 2
A-6	BS 40	High Perm	CT IS0136A	T-1	IARM 48B
A-6	BS 40B	High Perm	CT IS0141A	Temp Comp 31	CT X17842
A-6	IARM 40B	HSLA 100	SRM 1271	Type 800	BS 800
A-6FM	CT X56617	HY 80	SRM 1286	Vac 403	CT X31777
A-6FM	CT X56839	HY 130	SRM 1226	XM-28	CT X17556P
A-6FM	CT X60937	Invar-36	IARM 24A	Z30C13	IRSID 1825
A-6FM	CT X62730	Invar-36	IARM 24B	Zeron 100	IARM 319A
A-10	BS A-10	Invar-36 + Se	BS 186A		
A20	BS 187C	KOVAR	IARM 98B		
A36	SRM 1767	L-2	BS 43A		
A193 B16	BS 4942	L-6	BS 39B		
A242	IPT 500	L-6	IARM 43A		
A242 Mod	SRM C1285	L-6	IARM 43B		
A286	BS 188A	LF2	12X 349		
A286	IARM 26B	LF2	BS 2971		
A286	IARM 26C	LF2	ECRM 096-2D		
A286	SRM 1230	LF2	SS 601/2		
A485-1	BS A485-1	LF3	BS LF3		
A538C	BS 161A	M10	IARM 324A		
Aermet 100	CT ISO045A	M-1	CT M1		
Aermet 100	IARM 242A	M-10	CT M10		
AL6XN	IARM 157B	M-152	IARM 291A		
C-250	IARM 308A	M-2	14X 14892		
C-350	IARM 309A	M-2	BS 32D		
CA6NM	HRT FE2009-H	M-2	CT M2		
CA6NM	IARM 327A	M-2	IARM 44C		
CD4MCu	SRM C2401	M-2	SRM 1157		
CF-3M	BS 84J	M-4	IARM 251A		
CF8M	13X 19003	M-47	BS M-47		
CLA1	IARM 164A	M-50	IARM 306A		
CLA11	IARM 180A	M-7	CT M7		
CLA3	IARM 166A	Maraging 250	CT 250		
CLA5	IARM 168A	Maraging 300	CT 300		
CLA7	IARM 170A	Maraging 300	IARM 99B		
CLA9	IARM 172A	N35	CT V92510		
Custom 450	BS 9811	NIT 135M	IARM 305A		
Custom 450	BS 9812	Nitriding	BS 68A		
Custom 450	CT 450	Nitriding	BS 68B		
Custom 450	IARM 15B				
Custom 455	BS SS1961				
Custom 455	BS SS1962				
Custom 455	CT 455				
Custom 455	CT V88496				
Custom 455	CT V88497				
Custom 455	IARM 16B				
Custom 465	CT ISO123A				
Custom 630	CT 630				
D6-AC	IARM 299A				
D-2	BS 37E				
D-2	BS 37G				
D-2	CT D2				
D-2	IARM 41C				
D-3, D-4	ECRM 288-1D				

Please use the Adobe Acrobat "search" function to find the complete chemistry of these samples listed within

The best efforts have been made in the construction of this chart. Some samples do not perfectly fit the alloy specifications, but are considered acceptable for the purposes of calibration and type standardization.

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	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	.	.
4145	0.43-0.48	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	.	.
4147	0.45-0.50	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	.	.
4150	0.48-0.53	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	.	.
41L50	0.48-0.53	0.75-1.00	<0.035	0.02-0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	0.15-0.35	.
4320	0.17-0.22	0.45-0.65	<0.035	<0.04	0.15-0.35	1.65-2.00	0.40-0.60	0.20-0.30	.	.
4340	0.38-0.43	0.60-0.80	<0.035	<0.04	0.15-0.35	1.65-2.00	0.70-0.90	0.20-0.30	.	.
4615	0.13-0.18	0.45-0.65	<0.035	<0.04	0.15-0.35	1.65-2.00	.	0.20-0.30	.	.
4617	0.15-0.20	0.45-0.65	<0.035	<0.04	0.15-0.35	1.65-2.00	.	0.20-0.30	.	.
4620	0.17-0.22	0.45-0.65	<0.035	<0.04	0.15-0.35	1.65-2.00	.	0.20-0.30	.	.
4715	0.13-0.18	0.70-0.90	<0.035	<0.04	0.15-0.35	0.70-1.00	0.45-0.65	0.45-0.65	.	.
4720	0.17-0.22	0.50-0.70	<0.035	<0.04	0.15-0.35	0.90-1.20	0.35-0.55	0.15-0.25	.	.
4815	0.13-0.18	0.40-0.60	<0.035	<0.04	0.15-0.35	3.25-3.75	.	0.20-0.30	.	.
4820	0.18-0.23	0.50-0.70	<0.035	<0.04	0.15-0.35	3.25-3.75	.	0.20-0.30	.	.
50B46	0.44-0.49	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.20-0.35	.	.	B: 0.0005-0.003
5120	0.17-0.22	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.70-0.90	.	.	.
51L20	0.17-0.22	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.70-0.90	.	0.15-0.35	.
5130	0.28-0.33	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.80-1.10	.	.	.
5132	0.30-0.35	0.60-0.80	<0.035	<0.04	0.15-0.35	.	0.75-1.00	.	.	.
5140	0.38-0.43	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.70-0.90	.	.	.
5150	0.48-0.53	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.70-0.90	.	.	.
5160	0.56-0.64	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.70-0.90	.	.	.
51B60	0.56-0.64	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.70-0.90	.	.	B: >0.0005
6150	0.48-0.53	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.80-1.10	.	.	V: >0.15
8615	0.13-0.18	0.70-0.90	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	.
8617	0.15-0.20	0.70-0.90	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	.
8620	0.18-0.23	0.70-0.90	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	.
86L20	0.18-0.21	0.70-0.90	<0.035	0.02-0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	0.15-0.35	.
8622	0.20-0.25	0.70-0.90	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	.
8630	0.28-0.33	0.70-0.90	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	.
8637	0.35-0.40	0.75-1.00	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	.
8640	0.38-0.43	0.75-1.00	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	.
8645	0.43-0.48	0.75-1.00	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	.
8720	0.18-0.23	0.70-0.90	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.20-0.30	.	.
8740	0.38-0.43	0.75-1.00	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.20-0.30	.	.
8822	0.20-0.25	0.75-1.00	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.30-0.40	.	.
9259	0.56-0.64	0.75-1.00	<0.035	<0.04	0.70-1.10	.	0.45-0.65	.	.	.
9260	0.56-0.64	0.75-1.00	<0.035	<0.04	1.80-2.20	.	.	.	.	.
E4340	0.38-0.43	0.65-0.85	<0.025	<0.025	0.15-0.35	1.65-2.00	0.70-0.90	0.20-0.30	.	.
E51100	0.98-1.10	0.25-0.45	<0.025	<0.025	0.15-0.35	.	0.90-1.15	.	.	.
E52100	0.98-1.10	0.25-0.45	<0.025	<0.025	0.15-0.35	.	1.30-1.60	.	.	.
E9310	0.08-0.13	0.45-0.65	<0.025	<0.025	0.15-0.35	3.00-3.50	1.00-1.40	0.08-0.15	.	.
F-11	0.10-0.20	0.30-0.80	<0.04	<0.04	0.50-1.00	.	1.00-1.50	0.44-0.65	.	.
F-22	<0.15	0.30-0.60	<0.03	<0.03	<0.50	.	2.00-2.50	0.90-1.10	.	.
F-5	<0.15	0.30-0.60	<0.03	<0.03	<0.50	.	4.00-6.00	0.45-0.65	.	.
F-9	<0.15	0.30-0.60	<0.03	<0.03	0.50-1.0	.	8.00-10.00	0.90-1.10	.	.
F-91	0.08-0.12	0.30-0.60	<0.02	<0.01	0.20-0.50	<0.40	8.00-9.50	0.85-1.05	.	Al: <0.04 N: 0.03-0.07
F-91	continued									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
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**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	0.30-0.50	.	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	.	.	.	0.30-0.60	<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,
not samples for sale.

STAINLESS AND HIGH ALLOY STEEL SPECIFICATIONS

* notes optional chemistry

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	N	Nb	Other
13-8PH	<0.05	<0.20	<0.01	<0.008	<0.10	.	7.50-8.50	12.25-13.25	2.00-2.50	<0.01	.	Al: 0.90-1.35
15-5PH	<0.07	<1.00	<0.04	<0.03	<1.00	2.50-4.50	3.50-5.50	14.00-15.50	.	.	0.15-0.45	
17-4PH	<0.07	<1.00	<0.04	<0.03	<1.00	3.00-5.00	3.00-5.00	15.00-17.50	.	.	0.15-0.45	
201	<0.15	5.5-7.5	<0.060	<0.03	<1.00	.	3.50-5.50	16.00-18.00	.	<0.25	.	
202	<0.15	7.5-10.0	<0.060	<0.03	<1.00	.	4.00-6.00	17.00-19.00	.	<0.25	.	
301	<0.15	<2.00	<0.045	<0.03	<1.00	.	6.00-8.00	16.00-18.00	.	.	.	
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	<1.00	.	.	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	.	

These are specifications,
not samples for sale.