

CATALOGUE CRM

METAL SOLID IRON

2022

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PURE IRON

# = class, where 1 = CRM and 2 = RM		* Provisional Analysis					17025		T = total					
#	SYLAB Ref	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	BS LC-7B	0.0025	0.024	0.013	0.0029	(0.005)	0.0033	0.0081	0.0090	0.0034	0.0194	0.0018	0.0043	0.0020
1	BS LC-7A	0.0025	0.023	0.013	0.0030	0.0056	0.0038	0.0058	0.0074	0.0034	0.0194	0.0017	0.0043	(0.005)
1	BS 50G	0.0023	0.010	0.0088	0.0033	0.009	0.007	0.0045	0.008	(0.001)	0.008	0.0011	0.0019	0.0030
2	BS 50D	0.0020	0.0008	0.0014	0.00024	0.0018	0.0004	0.0012	0.0003	(0.00004)	(0.0040)	0.0026	0.0024	0.0220
1	ECRM 098-1D	0.00051	0.00008	(0.00006)	0.00031	0.00048	.	.	0.00571	0.00085	.	.	0.00024	.
1	ECRM 097-2D	.	0.012	0.00538	0.00181	0.00285	0.00793	0.0241	0.0213	0.00370	.	0.0139	0.00294	.

SYLAB Ref	As	B	Mg	Nb	Pb	Sn	Ti	V	W	Units
SRM 1265a	(0.0002)	0.00013	.	.	0.00001	.	(0.0001)	0.0006	.	disc 32 mm Ø x 19 mm
BS 50F	0.0013	(<0.0002)	(<0.0001)	(<0.0002)	(<0.0003)	0.0010	0.0004	(0.0003)	(<0.0050)	disc 35 mm Ø x ~7 or 19+ mm
BS LC-7B	0.0026	(0.0001)	(0.00008)	0.0007	(0.0003)	(0.0007)	(0.0001)	(0.0004)	(0.0006)	disc 38 mm Ø x 38 mm Fe:99.9
BS LC-7A	0.0024	(0.0001)	(0.0001)	(0.0005)	(0.0004)	(0.0007)	0.0004	(0.0004)	(0.0005)	disc 38 mm Ø x 38 mm Fe:99.9
BS 50G	0.0034	(0.0001)	(0.0002)	(0.0004)	(0.00007)Sb:0.0005		(0.003)	(0.0003)	.	disc 38 mm Ø x 38 mm Fe:99.9
BS 50D	(0.0001)	0.00004	0.00005	0.0002	0.00005	<0.0001	0.0001	0.0004	(0.0002)	disc 35 mm Ø x ~7 to 19+mm
ECRM 098-1D	.	.	.	.	.	.	.	.	.	octagon 35 mm Ø x 25 mm
ECRM 097-2D	0.00281	0.00012	Sb:0.00012	Ta:0.00015	Zn:0.00014	0.00043	.	0.00011	0.00386	disc 38 mm Ø x 25 or 30 mm

RM CARBON STEEL XRF SET

Part SYLAB Ref: BS CS-10		AVAILABLE INDIVIDUALLY					17025					~7 mm discs				
Grade	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	As	Co	N	Sn	V
Pure Iron	BS 50F	0.0064	0.082	0.0066	0.0031	0.016	0.0088	0.016	0.022	0.0017	0.003	0.0013	0.0023	0.0042	0.0010	(0.0003)
1018	BS 1018	0.195	0.79	0.012	0.024	0.237	0.130	0.104	0.177	0.044	0.029	0.0041	0.0058	0.0079	0.0099	0.0009
1020	BS 57F	0.196	0.554	0.009	0.027	0.202	0.197	0.070	0.120	0.018	(0.002)	(0.006)	0.007	0.0077	0.008	0.063
1026	BS 4932	0.234	0.76	0.010	0.015	0.25	0.15	0.080	0.144	0.033	(0.001)	(0.005)	0.005	0.0080	0.008	0.060
1035	BS 4931	0.352	0.80	0.011	0.016	0.27	0.217	0.070	0.093	0.024	(0.001)	0.005	0.006	0.0080	0.009	0.058
1040	BS 3941	0.407	0.802	0.016	0.023	0.257	0.053	0.018	0.069	0.0061	0.0019	0.0036	0.0042	0.0069	0.0019	0.0025



Grade	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	As	Co	N	Sn	V
1045	BS 56E	0.483	0.72	0.010	0.025	0.24	0.015	0.015	0.021	0.005	0.062	0.0035	0.005	0.0056	(0.0006)	(<0.002)
1095	BS 64C	0.920	0.22	0.015	0.0024	0.22	0.016	0.038	0.261	0.008	(0.005)	.	0.004	0.0084	(0.001)	0.005
1522 (LF2)	BS 2932	0.208	1.20	0.008	0.020	0.186	0.060	0.034	0.077	0.026	0.022	(0.003)	0.004	0.0080	0.005	0.001
1345	BS XCCV	0.44	1.75	0.012	0.024	0.28	0.015	0.019	0.041	0.007	0.033	0.0023	0.006	0.0056	(0.0004)	(<0.003)

CRM CARBON STEEL SET

AVAILABLE IN SET/6 ONLY 38 mm Ø x 30 mm

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

CRM SOLUBLE ALUMINUM AND SOLUBLE BORON STEEL SET

AVAILABLE IN SET/6 ONLY as grouped T = total S = soluble 37 mm Ø x 30 mm

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

SYLAB Ref	As	Bi	Ca	Nb	Pb	Sb	Sn	Ti	V	W	Zr
NCS HS93703-1a	0.034	0.0013	(0.0001)	0.300	(0.0001)	(0.0004)	0.0035	0.069	0.021	0.313	(0.0005)
NCS HS93703-2	0.0034	0.0006	0.0010	0.254	0.0008	0.0020	0.0069	0.346	0.376	1.97	0.087
NCS HS93703-3	0.0019	0.0004	0.0010	0.506	0.0007	0.0040	0.054	0.016	0.071	0.755	0.014



SYLAB Ref	As	Bi	Ca	Nb	Pb	Sb	Sn	Ti	V	W	Zr
NCS HS93703-4	0.056	(0.0002)	(0.0001)	0.167	0.0006	0.0095	0.012	0.035	0.709	1.48	0.069
NCS HS93703-5	0.0064	0.0015	0.0007	0.0057	0.0007	0.010	0.015	0.111	0.231	0.050	0.41
NCS HS93703-6	0.011	(0.0002)	(0.0001)	0.070	0.0011	0.0006	0.017	0.246	0.526	1.04	0.22

CARBON STEEL CONTINUED ON THE NEXT PAGE

= class, where 1 = CRM and 2 = RM

#	SYLAB Ref	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	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	0.920	0.22	0.015	0.0024	0.22	0.016	0.038	0.261	(0.005)	.	.	.	.	0.004	0.008
2	HRT FE2014-N	0.91	1.97	0.012	(0.004)	0.24	0.01	0.02	0.35	0.016	.	.	.	.	.	0.01
1	ECRM 056-2D	0.8181	0.5073	0.0103	0.0093	0.2006	0.0129	0.0218	0.0146	.	0.00024	.	.	.	.	.
1	SRM 1224	0.75	0.41	0.009	0.039	0.173	0.072	0.054	0.071	0.060	.	.	.	.	.	0.013
1	BS 54H	0.737	0.829	0.0030	0.0044	0.521	0.046	0.373	0.369	0.032	.	0.0036	(0.0001)	(0.0001)	0.0030	0.0106
2	BS 56E	0.483	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	BS 1045	0.458	0.796	0.0069	0.023	0.215	0.190	0.060	0.108	(0.001)	.	0.0050	(0.0003)	0.0013	0.0056	0.0170
1	IARM 200D	0.453	0.749	0.0103	0.024	0.225	0.232	0.097	0.109	(0.004)	.	0.0050	.	.	0.007	0.0217
1	IRSID 1657	0.445	0.724	0.028	(0.013)	0.274	.	0.048	(0.022)	0.004	.	0.0051	.	.	.	(0.008)
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	SS 434/1	0.41	1.49	0.050	0.027	0.31	.	0.044	0.055	.	.	.	.	.	.	.
1	BS 3941	0.407	0.802	0.016	0.023	0.257	0.053	0.018	0.069	0.0019	.	0.0036	(0.0001)	0.0011	0.0042	0.0061
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)



#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	B	Ca	Co	Mo
1	IRSID 1644	0.394	0.594	0.021	0.031	0.287	0.265	0.158	0.138	(0.017)	.	.	.	.	.	.
1	ECRM 084-1D	0.391	0.860	.	0.029	0.265	0.267	0.154	.	.	.	.	.	.	.	0.033
1	IRSID 1649	0.384	0.930	0.045	(0.047)	0.250	0.418	0.226	0.321	0.004	.	0.037	.	.	.	0.043
1	SS 460/2	0.383	0.616	0.0374	0.0099	0.126	.	.	.	0.024	(0.019)	.	0.0027	.	0.0106	.
1	BS 1035	0.362	0.758	0.0100	0.028	0.246	0.241	0.123	0.151	0.0008	.	0.0051	(0.0002)	0.0017	0.0073	0.049
1	IRSID 1655	0.355	1.018	(0.018)	(0.060)	0.443	0.415	0.188	0.157	(0.004)	.	(0.036)	.	.	.	(0.043)
1	IRSID 1663	0.353	0.967	0.0090	0.034	0.235	0.180	0.148	0.206	0.037	.	0.028	.	.	.	0.042
1	BS 1030	0.331	0.682	0.0101	0.0299	0.261	0.269	0.078	0.124	0.0014	.	0.0055	0.0003	0.0012	0.0069	0.0182
1	IARM 209D	0.322	0.68	0.0084	0.021	0.268	0.243	0.079	0.137	(0.003)	.	0.0060	0.0002	0.002	0.007	0.037
1	IRSID 1653	0.312	0.962	0.034	(0.039)	0.400	0.453	0.218	0.358	<0.004	.	(0.039)	.	.	.	(0.038)
1	IRSID 1654	0.270	0.979	0.036	(0.047)	0.354	0.441	0.241	0.328	.	.	0.040	.	.	.	(0.043)
1	BS 1026	0.260	0.715	0.0171	0.0191	0.268	0.247	0.096	0.163	0.0330	.	0.0100	(0.0002)	0.0017	0.0072	0.0289
2	HRT FE2016-N	0.23	0.85	0.015	0.011	0.32	0.02	0.15	0.21	0.033	.	.	.	.	.	.
1	BS 1020	0.210	0.568	0.0058	0.0249	0.250	0.184	0.059	0.109	0.0006	.	0.0074	(0.0001)	0.0022	0.0070	0.018
1	IRSID 1664	0.2008	0.472	0.0106	0.0259	0.0616	0.0820	0.0547	0.0707	.	0.0193	0.0115	(0.0002)	(0.0005)	(0.0084)	0.0157
1	BS 1018	0.195	0.79	0.012	0.024	0.237	0.130	0.104	0.177	0.029	.	0.0041	(0.0002)	(0.0004)	0.0058	0.044
1	BS LF2B	0.176	1.05	0.007	0.0067	0.209	0.318	0.115	0.138	0.0287	.	0.0052	(0.0002)	0.0010	0.0071	0.0382
1	BS 1016	0.172	0.77	0.011	0.030	0.193	0.153	0.107	0.091	0.0200	.	0.0066	(0.0003)	(0.0004)	0.0193	0.040
1	12X 10180C	0.171	0.803	0.0150	0.0200	0.147	0.0500	0.0284	0.0793	0.0198	.	0.0029	.	.	.	0.0047
1	12X 10180B	0.169	0.722	0.0101	0.0056	0.114	0.0544	0.0333	0.0451	0.043	.	0.0059	.	.	.	0.0062
2	TL 1000	0.1692	1.4281	0.0142	0.0164	0.2258	0.0120	0.0312	0.0635	0.0226	.	(0.0016)	0.00018	0.00039	0.0042	0.0076
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	.	.	.	.	.	.
1	ECRM 083-2D	0.0315	0.2160	0.0106	0.00561	0.00747	0.0127	0.0116	0.0219	0.0784	.	0.00177	.	.	0.00236	.
1	BS 1005	0.008	0.219	0.0118	0.0088	0.050	0.011	0.012	0.029	0.026	.	(0.003)	(0.0002)	(0.005)	0.0026	0.0033
1	BS 1009	0.008	0.212	0.0118	0.0086	0.048	0.011	0.0129	0.028	0.026	.	0.0011	(0.0002)	0.0033	0.0020	(0.003)
1	SS 111/1	0.0070	0.1623	0.0045	0.0049	0.0039	0.0089	0.0161	0.0055	.	.	0.0011	.	.	0.0053	0.0005



CARBON STEEL CONTINUED FROM THE PREVIOUS PAGE

SYLAB Ref	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 25 or 30 mm
SRM 1227	.	.	.	.	.	.	.	0.002	.	.	.	32 mm Ø x 19 mm
BS 64C	0.0084	(<0.003)	.	.	.	(0.001)	(0.002)	0.005	.	.	.	44 mm Ø X ~7 or 19+ mm
HRT FE2014-N	0.0052	.	.	.	.	.	.	0.066	.	.	.	~35mm Ø x 20 mm
ECRM 056-2D	.	.	.	.	.	.	.	.	.	.	.	44 mm Ø x 25 or 30 mm
SRM 1224	.	.	.	.	.	.	.	0.002	.	.	.	32 mm Ø x 19 mm
BS 54H	0.0039	(0.0003)	(0.001)	(0.001)	(0.001)	0.0030	0.0009	0.0008	(0.003)	Fe:97.0	(0.0008)	44 mm Ø x 19+ mm17025
SS 435/1	.	0.039	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
SS 435/2	.	0.134	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
BS 56E	0.0056	(<0.002)	.	(0.0001)	0.0004	(0.0006)	(0.001)	(<0.002)	.	.	.	44 mm Ø x ~7 to 19+ mm
IRSID 1636	.	.	.	.	.	.	.	.	.	.	.	48 mm Ø x 30 mm
SS 459/2	.	0.0102	.	0.0044	0.0121	.	.	0.0585	.	.	(0.074)	38 mm Ø x 19 mm
BS 1045	0.0113	0.026	0.0040	(0.0005)	0.0017	0.0084	0.0011	(0.002)	(0.0007)	Fe:98.1	(0.0009)	38 mm Ø x ~7 or 19+ mm17025
VS UG123	0.0078	.	.	.	.	.	.	0.0019	.	.	.	~45 mm Ø x ~25 mm
IRSID 1657	.	.	.	.	.	.	.	(0.001)	.	.	.	42 mm Ø x 30 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
IARM 210D	0.011	0.001	0.0034	0.001	0.002	0.010	0.0104	0.024	(0.002)	.	(0.001)	31 mm Ø x 2 or 18 mm
SS 434/1	.	0.078	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
IARM 349A	0.0100	0.0012	0.003	(0.001)	(0.003)	0.015	0.0013	0.027	0.004	(0.003)	(0.002)	31 mm Ø x 2 or18 mm
BS 3941	0.0069	0.033	0.0055	0.0010	0.0005	0.0019	0.0017	0.0025	(0.0004)	last	(0.0003)	41 mm Ø x ~7 mm17025
IRSID 1652	.	.	.	.	.	0.030	.	.	.	.	.	45 mm Ø x 30 mm
IRSID 1637	.	.	.	.	.	.	.	(0.002)	.	.	.	45 mm Ø x 30 mm
SS 605/2	.	.	.	.	.	.	.	(0.001)	.	.	(0.12)	44 mm Ø x 19 mm
IRSID 1644	.	.	.	.	.	.	.	.	.	.	.	45 mm Ø x 30 mm
ECRM 084-1D	.	.	.	.	.	0.023	.	.	.	.	.	38 mm Ø x 25 or 30 mm



SYLAB Ref	N	Nb	O	Pb	Sb	Sn	Ti	V	W	Zn	Zr	Units
IRSID 1649	.	.	.	.	.	0.028	.	.	.	.	.	40 mm Ø x 28 mm
SS 460/2	.	0.068	.	0.0005	(0.0006)	.	.	0.0322	.	.	(<0.0005)	38 mm Ø x 19 mm
BS 1035	0.0105	(0.001)	0.0036	(0.001)	(0.002)	0.0027	0.0007	0.026	0.0020	Fe:97.9	(0.0009)	40 mm Ø x ~7 or 19+ mm17025
IRSID 1655	.	.	.	.	.	0.046	.	.	.	.	.	40 mm Ø x 34 mm
IRSID 1663	.	.	.	.	.	0.0143	0.051	.	.	.	.	44 mm Ø x 30 mm
BS 1030	0.0107	(0.0004)	0.005	0.0005	0.0024	0.0114	0.0005	0.031	0.0012	last	(0.0002)	38 mm Ø x ~7 mm17025
IRSID 1653	.	.	.	.	.	0.066	.	.	.	.	.	40 mm Ø x 34 mm
VS RG27	.	.	.	.	.	.	.	0.064	0.170	.	.	~45 mm Ø x ~28mm
SS 434/2	0.0104	0.038	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
IRSID 1654	.	.	.	.	.	0.030	.	.	.	.	.	40 mm Ø x 34 mm
BS 1026	0.0083	(0.0004)	0.0031	(0.0002)	0.0019	0.0112	(0.0004)	0.0016	0.0021	.	(0.0002)	38 mm Ø x ~7 or 19+ mm17025
HRT FE2016-N	0.0055	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 20 mm
BS 1020	0.0109	(0.0003)	0.0046	(0.0002)	(0.0018)	0.0090	(0.0005)	0.0363	(0.0004)	.	(0.0005)	44 mm Ø x ~7 or 19+ mm17025
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 1018	0.0079	(0.0006)	0.0014	(0.0006)	(0.001)	0.0099	0.0009	0.0009	0.0014	Fe:98.2	(0.001)	38 mm Ø x ~7 or 19+ mm17025
BS LF2B	0.0078	(0.0003)	0.0024	(0.0001)	0.0018	0.0092	0.0009	0.0300	0.0027	17025	Fe:97.9	38 mm Ø x ~7 or 19+ mm
BS 1016	0.0113	(0.0009)	(0.003)	(0.004)	Fe:98.4	0.013	0.0010	0.0011	(0.0013)	17025	(0.001)	Hexagon ~60 mm Ø x 19+mm
12X 10180C	0.0052	.	.	.	.	0.0024	.	.	.	0.0005	.	~40 mm Ø x ~15 mm
12X 10180B	0.0071	.	.	.	.	0.0065	.	.	.	0.0079	.	~40 mm Ø x ~15 mm
TL 1000	(0.0093)	0.0293	.	Mg:(0.00005)	.	(0.00106)	0.0011	(0.0033)	(0.0002)	.	.	36 mm Ø x 20 mm
IARM 213D	(0.008)	(0.0012)	(0.01)	.	(0.0032)	0.0147	0.0011	0.0010	(0.003)	(0.002)	(0.0015)	31 mm Ø x 2 or 18
SS 456/3	.	0.0113	.	0.0153	0.0222	.	.	0.0214	.	.	.	38 mm Ø x 19 mm
SS 433/2	.	0.059	.	.	.	.	.	.	.	.	.	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 25 or 30 mm
ECRM 083-2D	0.00157	.	.	.	.	.	.	.	.	0.00439	.	39 mm Ø x 28 mm
VS RG26	.	.	.	.	.	.	0.121	.	0.0052	.	.	~45 mm Ø x ~28 mm
SS 431/2	0.0052	0.0040	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm



SYLAB Ref	N	Nb	O	Pb	Sb	Sn	Ti	V	W	Zn	Zr	Units	
BS 1005	0.0044	0.0008	0.0058	(0.0003)	(0.0007)	0.0009	0.0010	(0.0007)	(0.0003)	Fe:99.6	(0.0008)	38 mm Ø x ~7 or 19+ mm	17025
BS 1009	0.0043	(0.0008)	0.0060	(0.0004)	(0.0009)	0.0007	0.0007	(0.0006)	(0.001)	Fe:99.6	(0.0006)	38 mm Ø x ~7 or 19+ mm	17025
SS 111/1	0.0025	.	.	.	.	0.0006	0.0004	0.0002	.	.	.	44 mm Ø x 19 mm	
SS 432/2	0.0066	0.0174	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm	

ARSENIC AND ANTIMONY IN STEEL

# = class, where 1 = CRM and 2 = RM		analysis listed in mass %							except * which is mg/kg								
#	SYLAB Ref	As	Sb	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	Sn	Ti
1	12X 12749X	0.081	.	0.176	1.41	0.023	0.066	0.48	0.253	0.47	0.453	0.202	.	0.426	0.195	0.018	0.0178
1	12X 15266V	0.0640	.	0.455	1.240	0.0344	0.0258	0.674	0.226	1.317	3.49	0.526	.	0.286	0.298	0.0082	.
1	12X 350C	0.057	.	0.159	0.758	0.0296	0.040	0.467	0.196	0.160	0.335	0.290	.	0.030	0.147	0.0382	0.076
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 355C	0.0331	0.0796	0.159	0.508	0.0214	0.0241	0.494	0.657	0.0710	0.113	0.1104	.	0.0495	0.1010	0.0564	0.153
1	12X 354B	0.023	.	0.252	5.03	0.0478	0.0105	0.200	0.0679	0.082	0.0487	0.0150	.	0.0237	0.0328	0.0154	0.0248
1	BS 1762	0.025	(0.02)	0.363	2.04	0.032	0.037	0.38	0.133	1.16	0.929	0.049	.	0.064	0.347	0.079	0.096
1	ECRM 055-2D	0.0187	0.00376	0.5199	0.687	0.0102	0.0205	0.3094	0.2089	0.3121	0.3217	.	.	0.0257	0.0960	0.0162	0.00104
1	12X 357D	0.0127	0.018	0.312	0.219	0.0101	0.066	0.211	0.203	0.188	0.21	0.138	.	0.198	0.025	0.0145	0.074
1	BS 1030	0.0055	0.0024	0.331	0.682	0.0101	0.0299	0.261	0.269	0.078	0.124	0.0014	.	0.0069	0.0182	0.0114	0.0005
1	IRSID 1670	0.0018	.	0.0011	0.3981	0.0128	0.0075	0.0046	0.0134	0.0142	0.0174	0.0479	.	0.0018	0.0009	0.0017	0.0078
1	VS UG88	0.0007	0.0003	0.62	1.26	0.0026	0.0043	1.22	0.171	0.52	0.474	0.01	0.009	.	0.104	.	0.107
1	VS UG91	0.0004	0.00009	0.49	.	0.0038	0.0021	2.23	0.057	0.039	0.064	0.048	0.048	.	0.058	.	0.038
1	SS 458/2	.	0.089	0.198	0.479	0.0281	0.0314	0.504	.	.	.	0.055	0.053	0.198	.	.	.
1	SS 457/2	.	0.050	0.307	0.327	0.0098	0.0448	0.105	.	.	.	0.088	0.084	0.0217	.	.	.

SYLAB Ref	B	Bi	Ca*	Ce*	Mg*	N	Nb	O*	Pb	Se	Ta	V	W	Zn	Zr	Units
12X 12749X	.	.	.	.	.	.	.	.	0.016	.	.	0.068	0.036	.	.	~40 mm Ø x ~15 mm
12X 15266V	.	.	.	.	.	.	1.438	.	.	.	0.116	0.106	.	.	.	~40 mm Ø x ~15 mm
12X 350C	.	.	.	.	.	.	.	.	.	.	.	0.0115	0.260	.	.	~40 mm Ø x ~15 mm
IRSID 1656	.	.	.	.	.	.	.	.	.	.	.	(0.002)	.	.	.	40 mm Ø x 35 mm



SYLAB Ref	B	Bi	Ca*	Ce*	Mg*	N	Nb	O*	Pb	Se	Ta	V	W	Zn	Zr	Units
12X 355C	(0.0012)	.	.	.	.	0.0023	0.023	.	.	0.0395	.	0.1265	0.037	.	0.0192	~40 mm Ø x ~15 mm
12X 354B	.	.	.	.	.	0.0027	0.0802	.	.	.	.	0.0204	0.0248	.	.	~40 mm Ø x ~15 mm
BS 1762	0.0048	.	(20)	.	(3)	0.017	0.074	64	(0.011)	Fe:93.9	(0.03)	0.193	0.029	(0.01)	(0.01)	37 mm Ø x 25 mm17025
ECRM 055-2D	.	.	.	.	.	0.01069	.	.	.	.	.	0.00245	0.0166	.	.	38 mm Ø x 25 or 30 mm
12X 357D	0.0036	0.0024	.	.	.	.	0.011	.	0.040	0.0057	.	0.127	0.0213	.	0.0049	~40 mm Ø x ~15 mm
BS 1030	0.0003	.	12	.	(2)	0.0107	(0.0004)	50	0.0005	.	(0.001)	0.031	0.0012	last	(0.0002)	38 mm Ø x ~7 mm17025
IRSID 1670	0.0007	.	.	(2)	.	0.0016	(0.0003)	.	.	.	.	(0.0005)	.	.	.	37 mm Ø x 30 mm
SS 458/2	0.0069	.	.	.	.	.	0.0510	.	0.0140	.	.	0.105	.	.	(0.064)	38 mm Ø x 19 mm
SS 457/2	0.0046	.	.	.	.	.	0.0174	.	0.0098	.	.	0.153	.	.	0.025	38 mm Ø x 19 mm

RM		BISMUTH STEEL													
SYLAB Ref		Bi	C	Mn	P	S	Si	Cu	Ni	Cr	Al	As	Co	Mo	N
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
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
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

SYLAB Ref	Ca	O	Pb	Sn	Ti	V	Units
BS 4140A	(0.0003)	(0.0025)	(0.001)	0.011	(0.003)	0.004	38 mm Ø x ~7 to 19+ mm
BS 53MOD	(0.001)	(0.002)	0.0005	0.008	.	0.005	38 mm Ø x ~7 or 19+ mm
BS 4150MOD	0.0010	(0.003)	0.0010	0.013	(0.002)	0.008	38 mm Ø x ~7 mmlast

CALCIUM IN STEEL																
# = class, where 1 = CRM and 2 = RM					analysis listed in mass %					except * which is mg/kg						
#	SYLAB Ref	Ca	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	N	V
1	BS HiCal-1	0.0140	0.271	1.00	(0.007)	0.0007	1.29	0.152	3.28	1.55	0.070	.	0.0024	0.379	.	0.0027
1	BS 9325A	0.0039	0.203	0.969	0.0079	0.0045	0.612	0.163	3.29	1.50	0.0056	.	0.0093	0.358	0.0076	(0.0024)
1	BS 1020	0.0022	0.210	0.568	0.0058	0.0249	0.250	0.184	0.059	0.109	0.0006	.	0.0070	0.018	0.0109	0.0363
2	HRT FE2009-N	0.0020	0.12	0.55	0.010	0.003	0.32	0.08	0.25	2.56	0.030	.	.	1.02	.	0.015
1	BS 3941	0.0011	0.407	0.802	0.016	0.023	0.257	0.053	0.018	0.069	0.0019	.	0.0042	0.0061	0.0069	0.0025



#	SYLAB Ref	Ca	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	N	V
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
1	BS 4130	0.0007	0.303	0.541	0.0105	0.0113	0.245	0.221	0.088	0.924	0.0242	.	0.0065	0.168	0.0072	0.0037
2	BS 4942	0.0006	0.414	0.56	0.015	0.021	0.22	0.165	0.16	0.97	(0.004)	.	0.010	0.54	0.0080	0.28
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	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)

SYLAB Ref	As	B	Bi	Nb	O	Pb	Sb	Sn	Ti	W	Zr	Other			
BS HiCal-1	0.0022	(0.0001)	.	(0.002)	.	(0.0005)	.	(0.0002)	0.0037	(0.0009)	(0.0008)	~38 mm Ø x ~30 mm		17025	
BS 9325A	0.0024	(0.0001)	.	0.0017	.	(0.0003)	Fe: 92.8	(0.0003)	0.0030	0.024	(0.001)	~40 mm Ø x ~30 mm		17025	
BS 1020	0.0074	(0.0001)	.	(0.0003)	0.0046	(0.0002)	(0.0018)	0.0090	(0.0005)	(0.0004)	(0.0005)	44 mm Ø x ~7 or 19+ mm		17025	
HRT FE2009-N	.	.	.	.	.	.	.	.	.	.	Zn: 0.004	40 mm Ø x 40 mm			
BS 3941	0.0036	(0.0001)	.	0.033	0.0055	0.0010	0.0005	0.0019	0.0017	(0.0004)	(0.0003)	41 mm Ø x ~7 or ~13 mm		17025	last
BS 4150MOD	0.005	.	0.070	.	(0.003)	0.0010	.	0.013	(0.002)	.	.	38 mm Ø x ~7 or 19 mm		last	
BS 4130	0.0048	(0.0002)	.	0.0015	0.0015	(0.00003)	(0.0021)	0.0099	0.0009	0.0011	Mg:0.0002	38 mm Ø x ~7 or 19+ mm		17025	
BS 4942	0.005	.	.	.	(0.0021)	.	.	0.014	.	.	.	38 mm Ø x ~7 or 19+ mm			
BS PP20	0.0049	0.00011	.	0.0048	(0.0010)	.	0.0013	0.0069	0.0007	0.0058	.	38 mm Ø x ~7 or 19+ mm		17025	
TL 1669	0.0017	0.00038	.	0.00046	.	0.00013	0.00049	0.0071	0.0504	.	(0.00021)	38 mm Ø x 25 mm		Zn: 2.7*	

Cr-Mo STEEL (Cr > 1, Mo > 0.1)

= class, where 1 = CRM and 2 = RM

* Provisional Analysis

#	SYLAB Ref	Cr	Mo	C	Mn	P	S	Si	Cu	Ni	Al	As	Co	N	Sn	V
1	BS 48B	8.78	0.949	0.110	0.36	0.0228	0.0068	0.75	0.070	0.165	0.0157	0.0048	0.0165	0.0088	0.0049	0.033
1	BS 9905A	8.75	0.95	0.113	0.465	0.0133	0.0040	0.34	0.091	0.152	0.0186	0.0065	0.0136	0.034	0.0060	0.216
1	13X 90901A	8.43	0.905	0.102	0.447	0.0148	0.0009	0.429	0.039	0.249	0.021	.	.	0.0472	0.0020	0.208
2	HRT FE2012-H	5.13	2.78	0.37	0.41	0.019	0.002	0.42	0.07	0.20	.	.	.	.	.	0.42
1	BS H-13A	5.11	1.32	0.391	0.445	0.0187	(0.003)	1.13	0.083	0.139	(0.03)	0.0050	0.033	0.034	(0.005)	0.92
2	BS 47B	4.78	0.45	0.122	0.39	0.014	0.022	0.22	0.12	0.105	0.018	0.004	.	0.023	0.006	0.004
1	IARM 37C	4.34	0.500	0.096	0.408	0.014	(0.004)	0.31	0.121	0.148	(0.010)	(0.009)	0.015	0.008	0.009	0.017
2	BS 47A	4.22	0.47	0.130	0.44	0.017	0.015	0.27	0.11	0.12	0.015	.	0.011	0.018	0.008	0.016



#	SYLAB Ref	Cr	Mo	C	Mn	P	S	Si	Cu	Ni	Al	As	Co	N	Sn	V
1	12X 40CDV12A	3.29	0.946	0.401	0.604	0.0060	0.0013	0.250	0.0978	0.1062	0.0208	0.0040	0.0197	0.0155	0.0049	0.198
1	SRM 1772	3.10	1.39	0.477	0.61	0.008	0.0031	0.264	0.083	0.105	.	.	.	.	.	0.236
1	SS 407/2	3.03	0.83	0.490	0.195	0.038	0.0105	0.66	0.397	0.527	0.040	.	0.0068	(0.011)	.	0.19
2	HRT FE2009-N	2.56	1.02	0.12	0.55	0.010	0.003	0.32	0.08	0.25	0.030	.	.	.	.	0.015
1	SRM 1270	2.34	0.956	0.077	0.626	0.0065	0.0065	0.247	0.114	0.174	.	.	0.038	.	.	0.013
1	BS 46B	2.28	1.00	0.126	0.472	0.0087	0.0187	0.219	0.128	0.081	0.020	0.0041	0.0074	0.0100	0.0073	0.0073
1	ECRM 190-1D	2.18	0.410	0.395	1.28	0.0112	0.0044	0.278	.	0.934	.	.	0.034	.	.	.
1	BS PP20	1.94	0.212	0.382	1.41	0.018	0.0070	0.262	0.119	1.00	0.0132	0.0049	0.0145	0.0080	0.0069	0.066
1	BS 55G	1.79	0.421	0.386	0.853	0.010	0.0026	0.58	0.106	0.131	0.0123	0.0062	0.0093	0.0079	0.0074	0.0056
1	IRSID 1749	1.734	0.257	0.411	0.733	0.0104	0.0157	0.193	0.188	0.190	1.034	0.0134	0.0141	0.0066	0.0148	(0.0036)
1	ECRM 129-3D	1.702	0.206	0.3684	0.371	0.0110	0.0165	0.2087	0.0804	1.022	1.016	0.0049	0.0148	0.0046	0.0067	.
1	TL 1100	1.664	0.3349	0.3487	0.6284	0.0124	0.0049	0.2839	0.1767	3.727	0.0374	.	0.0283	0.0116	0.0083	.
1	ECRM 195-1D	1.56	0.77	0.757	0.571	0.017	0.012	0.467	0.036	0.33	.	.	.	0.010	.	0.31
1	SRM 1286	1.53	0.344	0.196	0.152	0.008	0.017	0.130	0.043	2.81	0.109	0.019	0.116	.	0.012	0.0057
2	BS 68B	1.51	0.309	0.39	0.52	0.010	0.020	0.26	0.163	0.165	1.08	.	0.010	0.0073	0.010	0.007
1	BS 68E	1.49	0.322	0.406	0.560	0.005	0.0004	0.296	0.134	0.147	1.09	(0.003)	0.007	0.0030	0.0097	0.0010
1	12X 24065A	1.412	0.1716	0.370	0.502	0.0129	0.0044	0.218	0.216	0.271	1.035	0.0074	.	0.0076	0.0120	0.0040
2	BS 58E	1.40	0.110	0.100	0.63	0.009	0.002	0.29	0.154	3.22	0.029	0.003	0.013	0.0033	0.003	0.006
1	12X 15CDV6A	1.397	0.875	0.171	0.839	0.0056	0.0086	0.152	0.0231	0.044	0.019	0.0041	.	0.0069	0.0011	0.242
1	IARM 35L	1.35	0.607	0.119	0.535	0.007	0.014	0.679	0.123	0.071	0.017	0.0045	0.0070	0.0072	0.0088	0.0037
1	12X 43400A	1.181	0.223	0.422	0.592	0.0164	0.0284	0.259	0.177	1.378	0.013	0.0084	.	0.0089	0.007	.
1	BS 45B	1.14	0.60	0.140	0.502	0.0068	0.017	0.583	0.101	0.136	0.030	0.0066	0.0090	0.0066	0.0069	0.0083
1	IRSID 1745	1.130	0.222	0.295	0.850	0.0077	0.081	0.220	0.202	0.188	0.0202	0.0262	.	.	0.0134	(0.004)
1	12X 11572A	1.107	0.499	0.111	0.498	0.0069	0.0025	0.649	0.0576	0.0977	0.0290	0.0030	.	0.0058	0.0049	.
1	12X 14072A	1.061	0.573	0.430	0.680	0.0151	0.0061	0.322	0.203	0.136	0.0039	.	0.0098	0.0103	(0.011)	0.301
2	BS 1962	1.05	0.229	0.41	0.94	0.007	0.011	0.242	0.224	0.16	0.018	0.007	0.008	0.0095	0.010	0.004
1	IPT 501	1.05	0.210	0.277	0.723	0.016	0.030	0.208	0.083	0.063	0.034	.	0.008	0.0076	0.008	.
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



SYLAB Ref	B	Ca	Nb	O	Pb	Sb	Ta	Ti	W	Zr	Units		
BS 48B	(0.0002)	(0.003)	(0.001)	0.0022	(0.0002)	(0.001)	.	0.0031	0.026	(0.002)	38 mm Ø x ~7 or 19+ mm	17025	Fe: 88.7
BS 9905A	(0.0005)	(0.0002)	0.074	0.0024	(0.002)	(0.003)	(0.01)	0.0023	0.0024	(0.002)	38 mm Ø x ~7 or 19+ mm	17025	Fe: 88.9
13X 90901A	.	.	0.070	.	.	.	.	(0.0025)	0.009	.	~40 mm Ø x ~15 mm		
HRT FE2012-H	.	.	(0.007)	.	.	.	.	.	.	.	40 mm Ø x 20 mm		
BS H-13A	(0.0007)	(0.0006)	0.0052	(0.016)	(0.0004)	(0.002)	.	(0.03)	0.100	(0.002)	38 mm Ø x ~7 or 19+ mm	17025	Fe: 90.2
BS 47B	.	.	.	(0.004)	.	.	.	.	.	.	38 mm Ø x ~7 or 19+ mm		
BS 47A	.	.	0.002	(0.003)	.	.	.	0.003	.	.	38 mm Ø x ~7 or 19+ mm		
12X 40CDV12A	.	.	.	.	.	.	.	.	.	.	38 mm Ø x ~15 mm		
SRM 1772	.	.	.	.	.	.	.	.	.	.	34 mm Ø x 19 mm		
SS 407/2	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm		
HRT FE2009-N	.	0.0020	.	.	.	.	.	.	.	Zn: 0.004	40 mm Ø x 40 mm		
SRM 1270	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm		
BS 46B	(0.0006)	0.0009	(0.003)	0.0026	(0.001)	(0.002)	.	(0.001)	0.0008	(0.002)	38 mm Ø x ~7 or 19+ mm	17025	Fe: 95.7
ECRM 190-1D	.	.	.	.	.	.	.	.	.	.	35 mm x 35 mm x 30 mm		
BS PP20	0.00011	0.0003	0.0048	(0.0010)	.	0.0013	.	0.0007	0.0058	.	38 mm Ø x ~7 or 19+ mm	17025	
BS 55G	(0.0003)	0.0016	<0.01	0.0015	<0.01	0.0026	.	0.0044	(0.029)	<0.01	38 mm Ø x ~7 or 19+ mm	17025	Fe: 95.6
IRSID 1749	.	(0.0002)	(<0.0005)	0.0002	(<0.0002)	0.0018	.	0.0031	(<0.0030)	(<0.0003)	41 mm Ø x 25 mm	Mg: 9 ppm	
ECRM 129-3D	.	.	.	.	.	0.00059	.	0.0030	.	.	39 mm Ø x 25 mm		
TL 1100	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm		
ECRM 195-1D	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 28 to 35 mm		
SRM 1286	(0.006)	.	(0.012)	.	(0.0002)	.	.	0.040	(0.013)	(0.021)	32 mm Ø x 19 mm		
BS 68B	.	.	.	.	.	.	.	0.005	.	.	41 mm Ø x 15-19 mm	last	
BS 68E	0.0002	(0.0003)	(0.002)	0.0011	(0.0002)	0.0024	.	0.0012	(0.002)	.	38 mm Ø x ~7 or 19+ mm	Mg:0.0004	17025
12X 24065A	.	.	.	.	.	.	.	0.0028	.	Zn:0.0034	~40 mm Ø x ~15 mm		
BS 58E	(0.0002)	(0.0002)	.	0.0008	.	.	.	(0.002)	.	.	38 mm Ø x ~7 or 19+ mm		
12X 15CDV6A	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm		
BS 45B	(0.0003)	0.0008	(0.002)	0.0015	(0.15)	(0.003)	.	0.0024	(0.0038)	(0.0009)	38 mm Ø x ~7 or 19+ mm	17025	Fe: 96.7
IRSID 1745	.	.	.	.	.	.	.	(0.003)	.	.	48 mm Ø x 30 mm		
12X 11572A	.	.	.	.	.	.	.	.	.	Zn:0.0009	38 mm Ø x ~15 mm		



SYLAB Ref	B	Ca	Nb	O	Pb	Sb	Ta	Ti	W	Zr	Units
12X 14072A	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
IPT 501	.	.	.	.	.	.	.	0.0015	.	.	34 mm Ø x 18 mm

LEADED STEEL

= class, where 1 = CRM and 2 = RM

OES regularly requires extension of preburn time

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

SYLAB Ref	B	Ca	Nb	O	Sb	Ti	W	Zn	Grade	Units
BS 74B	.	.	.	.	.	.	.	.	12L14	41 mm Ø x ~7 or 19+ mm
BS 74C	.	.	(<0.005)	.	.	.	.	.	12L14	41 mm Ø x ~7 or 19+ mm 17025
14X 12144A	.	.	.	.	.	.	.	.		~40 mm Ø x ~15 mm
CZ CM-15C	.	.	.	.	.	.	.	.		~39 mm Ø x 25 mm
BS 74D	0.0009	<0.001	(0.0018)	(0.028)	<0.05	(0.0007)	<0.005	Fe:98.2	12L14	41 mm Ø x ~7 or 19+ mm 17025
BS 75G	(0.0002)	(0.0002)	(0.0003)	0.0155	.	(0.0004)	0.0004	.	11L17	41 mm Ø x ~7 or 19+ mm 17025 Fe:[98.2]
BS 75F	.	.	.	.	.	.	.	.	11L17	40 mm Ø x ~7 or 19+ mm 17025 last
BS 73C	(0.0002)	(0.0005)	(0.002)	0.0013	(0.002)	0.0024	(0.006)	.	86L20	38 mm Ø x ~7 or 19+ mm 17025 Fe:[97.0]
IARM Fe86L20-18	CRM	.	.	.	.	.	.	.		38 mm Ø x ~2 or 19 mm



SYLAB Ref	B	Ca	Nb	O	Sb	Ti	W	Zn	Grade	Units	
IARM 183C	0.0011	.	0.0010	0.016	(0.001)	0.0009	(0.002)	0.001	12L14	31 mm Ø x 2 mm	
BS 72B	.	.	(0.001)	.	.	(0.002)	.	.	41L50	37 mm Ø x ~7 or 19+ mm	17025
BS 73B	.	.	.	.	.	.	.	.	86L20	41 mm Ø x ~12 or ~17 mm	25(pre-17025) last
BS 70B	.	.	.	.	.	.	.	.	41L40MOD	41 mm Ø x ~7 or 19+ mm	17025
BS 70C	(0.0003)	.	<0.005	0.0020	(0.003)	0.0020	(0.0006)	.	41L40MOD	41 mm Ø x ~7 or 19+ mm	17025 Fe: 96.7

RM LEADED AND BISMUTH STEEL XRF SET

Part SYLAB Ref: BS PB-BI-7		AVAILABLE INDIVIDUALLY										17025					~7 mm discs
Grade	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Bi	Pb	Sn	V	N	
11L17	BS 75F	0.165	1.05	0.009	0.116	0.004	0.030	0.044	0.080	0.018	0.002	.	0.202	.	.	.	
12L14	BS 74B	0.08	0.91	0.087	0.316	0.002	0.006	0.012	0.019	0.008	(0.002)	.	0.34	.	.	.	
41L40	BS 70B	0.40	0.90	0.009	0.022	0.27	0.13	0.25	1.00	0.205	0.024	.	0.135	.	.	.	
41L50	BS 72B	0.497	0.87	0.029	0.029	0.26	0.21	0.169	0.985	0.187	0.020	.	0.174	0.014	0.004	0.0081	
4140 + Bi & S	BS 4140A	0.40	0.84	0.021	0.076	0.21	0.15	0.15	0.97	0.16	0.016	0.105	(0.001)	0.011	0.004	0.0098	
4150 + Bi & S	BS 4150 MOD	0.47	0.90	0.024	0.079	0.21	0.19	0.15	1.01	0.21	0.012	0.070	0.0010	0.013	0.008	0.0087	
8620 + Bi & S	BS 8620A	0.184	0.80	0.008	0.079	0.21	0.15	0.44	0.48	0.16	0.016	0.073	(0.001)	0.009	0.004	0.0107	

MANGANESE STEEL

14X:~40Øx~15-17mm		BS:32Øx~15-17mm			CZ:~39Øx25mm		DSZU:39Øx20mm		ECRM:35Øx25mm		IMN:50-56Øx15mm		NCS:36Øx36mm		SS:48x42x12mm		VS:~38Øx~18mm	
#	SYLAB Ref	Mn	C	P	S	Si	Cu	Ni	Cr	Al	Mo	N	Nb	Sn	V	Other		
1	IRSID 1833	22.57	0.605	0.0345	(0.0005)	0.193	0.030	0.0494	0.268	0.0025	0.0133	0.012	0.0026	0.0043	0.203	As, Co, Pb, and Ti **		
1	14X MN1AL	22.08	0.597	0.053	0.0054	0.944	0.178	0.692	1.321	(0.23)	0.499	0.0585	0.096	0.0393	0.0226	Ta:(0.011)		Ti: 0.0346
2	BS 17	19.59	0.63	0.047	0.007	0.21	0.075	0.03	1.46	(0.02)	0.46	.	.	(0.012)	(0.02)	~15mm		height
2	BS 17A	19.38	0.588	0.043	0.005	0.22	0.135	0.060	1.37	0.052	0.52	0.038	0.06	0.012	0.016	Co: 0.013		
1	NCS AH37335	18.70	1.30	0.048	0.007	0.457	0.021	0.593	2.00	(0.011)	0.249	0.024	0.077	Ce:0.011	0.201	Ti:0.006		
1	NCS AH37334	16.90	1.20	0.051	0.011	0.655	0.024	0.200	2.20	0.018	0.180	0.021	0.085	Ce:0.027	0.253	La:0.014		Ti: 0.125
1	NCS AH37333	12.46	1.23	0.061	0.009	0.428	0.017	3.34	1.72	0.022	0.951	0.024	0.108	Ce:0.029	0.085	La:0.017		Ti: 0.064
1	14X MN2S	12.3	0.80	0.024	0.0080	2.20	0.089	0.726	0.364	0.020	1.08	0.038	0.23	0.015 0	0.089	Ta:(0.006)		Ti: 0.018



#	SYLAB Ref	Mn	C	P	S	Si	Cu	Ni	Cr	Al	Mo	N	Nb	Sn	V	Other	
1	SS 493/3	11.15	0.819	0.12	0.009	0.861	0.017	3.24	0.259	0.035	1.04	0.025	.	.	0.025		
1	14X MN3U	10.2	1.09	0.0239	0.015	1.11	0.135	0.387	0.599	0.045	0.343	0.025	0.398	0.0254	0.022	Ta: 0.010	Ti:(0.10)
2	BS 19A	8.76	1.57	0.092	0.009	1.46	0.51	1.48	3.75	0.057	1.97	0.039	0.040	0.037	0.10	Co: 0.014	
1	DSZU C020	8.85	0.97	0.024	(0.015)	0.091	0.53	1.36	0.96	(0.004)	0.13	(0.020)	(0.02)	.	0.152	B:(0.002)	Ti:(0.003)
1	14X MN5U	8.78	1.36	0.0552	0.0273	1.47	0.691	2.10	3.18	0.0257	1.93	0.0231	0.102	0.0228	0.0490	Ti: 0.93	
1	SS 492/3	8.33	1.18	0.0318	0.0093	0.299	0.0211	4.17	1.076	0.131	1.318	0.0225	.	.	(0.004)	Co: 0.0048	
1	14X MN5V	8.02	1.42	0.057	0.0207	2.27	0.551	3.09	3.28	0.145	2.26	0.0146	0.041	0.0278	0.0810	Ta:(0.004)	Ti: 0.51
2	CZ CM-9B	2.27	0.17	(0.008)	(0.010)	0.89	0.040	0.023	1.36	0.049	(0.002)	.	(0.06)	(0.003)	(0.006)	+7	informational

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

CRM		MANGANESE STEEL SET														30 mm Ø x 24 mm	
AVAILABLE IN SET/6 ONLY		C	Mn	P	S	Si	Cu	Ni	Cr	B	Co	Mo	N	Ti	V		
SYLAB Ref		C	Mn	P	S	Si	Cu	Ni	Cr	B	Co	Mo	N	Ti	V		
NCS HS11720-6		2.38	5.36	0.029	0.108	1.69	0.474	3.43	0.084	0.017	0.107	1.51	0.016	0.218	0.837		
NCS HS11720-1		1.96	22.96	0.188	0.0063	0.348	0.025	0.045	3.01	0.0021	0.0094	(0.0095)	0.091	0.0041	0.034		
NCS HS11720-2		1.61	10.66	0.052	0.054	0.652	0.221	0.328	0.467	0.0038	0.010	0.118	0.054	0.047	0.132		
NCS HS11720-3		1.16	16.75	0.077	0.055	1.16	0.143	0.152	0.257	0.0013	0.091	0.589	0.033	(0.030)	0.530		
NCS HS11720-4		1.06	15.04	0.044	0.059	1.47	0.089	1.66	1.45	0.0023	0.0093	0.881	0.072	0.013	0.567		
NCS HS11720-5		0.750	12.20	0.118	0.037	1.01	0.449	0.838	0.680	0.0009	0.0070	0.302	0.026	(0.018)	0.273		

RESULFURIZED STEEL		OES regularly requires extension of preburn time to analyze correctly														
# = class, where 1 = CRM and 2 = RM		S	C	Mn	P	Si	Cu	Ni	Cr	Al	Co	Mo	N	Sn	Ti	V
# SYLAB Ref		S	C	Mn	P	Si	Cu	Ni	Cr	Al	Co	Mo	N	Sn	Ti	V
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	14X 12130A	0.305	0.0871	1.219	0.061	0.022	0.0201	0.0345	0.0505	0.0024	.	0.0102	0.0097	0.0054	.	.
1	BS 1144A	0.271	0.468	1.43	0.0108	0.214	0.147	0.063	0.076	0.0020	0.0064	0.0154	0.0095	0.0079	(0.0008)	0.0015
1	BS 1144	0.243	0.483	1.55	0.022	0.262	0.462	0.097	0.193	(0.002)	0.011	0.017	0.0093	0.0113	0.002	0.0039



#	SYLAB Ref	S	C	Mn	P	Si	Cu	Ni	Cr	Al	Co	Mo	N	Sn	Ti	V
1	14X MSFM 4A	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	14X 606M36TA	0.196	0.378	1.574	0.0159	0.167	0.179	0.0931	0.163	0.0071	.	0.272	0.0096	0.0103	.	.
1	14X 11390A	0.190	0.420	1.040	0.0342	0.198	0.0395	0.0239	0.0609	0.0026	.	0.0067	0.0042	0.0022	.	.
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	14X MSFM3G	0.147	0.438	1.809	0.0297	0.292	0.205	0.161	0.454	(0.18)	0.0494	0.390	0.0206	0.0378	.	0.0199
1	14X 11170A	0.120	0.154	1.129	0.0133	0.151	0.1101	0.0877	0.1126	0.0023	.	0.0317	0.0112	0.0110	.	.
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	0.112	0.418	1.56	0.018	0.017	0.028	0.032	0.093	(0.001)	0.005	0.019	0.0056	0.0016	(0.001)	0.0014
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	0.09	0.0025	0.004	(0.004)	0.002
1	12X 15253T	0.0821	0.222	1.208	0.0900	0.347	0.266	0.991	2.022	0.0242	0.265	1.039	0.029	0.309	.	0.276
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
1	12X 15217R	0.078	0.166	0.885	0.064	1.392	0.257	0.860	1.011	0.081	0.193	0.311	0.014	0.058	.	0.607
2	BS 42	0.073	0.516	1.24	0.021	0.235	0.252	0.183	0.67	0.020	0.012	0.190	0.0080	0.012	(0.003)	0.003
1	12X 15255R	0.067	0.392	1.09	0.080	1.01	0.288	0.317	1.49	0.161	0.045	0.113	0.0058	0.106	0.052	0.491
1	BS 4150MOD-A	0.062	0.503	1.12	0.0172	0.253	0.192	0.095	0.799	0.0023	0.0070	0.170	0.0081	0.0090	0.0018	0.029

SYLAB Ref	As	B	Bi	Ca	Nb	O	Pb	Sb	W	Zn	Zr	Units
ECRM 085-1D	.	.	.	.	.	.	0.0010	0.0073	.	0.0025	.	38 mm Ø x 25 or 30 mm
BS 66K	.	.	.	.	.	.	.	.	.	.	.	41 mm Ø x ~7 or 19+ mm
BS 66L	0.0020	(<0.0003)	.	(<0.0010)	(0.0012)	.	0.0007	0.0021	(<0.0010)	.	.	44 mm Ø x ~7 or 19+ mm 17025
14X 12130A	0.0016	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
IARM 199C	0.0059	0.0012	0.003)	(0.0011)	0.0016	0.0037	(0.001)	(0.003)	0.0023	(0.0006)	.	31 mm Ø x 2 or 18 mm
BS 1144A	0.0052	(0.0003)	Fe:97.3	(0.0005)	(0.002)	0.0019	(0.0006)	(0.002)	(0.0009)	.	(0.0006)	38 mm Ø x ~7 or 19+ mm 17025
BS 1144	0.009	.	.	.	(0.004)	0.0016	(0.001)	.	(0.003)	.	last	38 mm Ø x ~16 mm 17025
14X MSFM 4A	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
14X 606M36TA	0.0085	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
14X 11390A	0.0028	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
ECRM 058-2D	0.0095	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 25 or 30 mm



SYLAB Ref	As	B	Bi	Ca	Nb	O	Pb	Sb	W	Zn	Zr	Units
14X MSFM3G	.	0.0043	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
14X 11170A	0.0044	.	.	.	.	.	0.0011	.	.	.	.	~40 mm Ø x ~15 mm
BS 65C	.	.	.	.	.	.	.	.	.	.	.	37 mm Ø x ~7 or 19+ mm
BS 66B	.	0.0003	.	.	.	.	.	.	.	.	.	41 mm Ø x ~7 or 19+ mm
BS 3993	0.004	.	.	(0.0002)	.	(0.0030)	.	.	.	.	.	38 mm Ø x ~7 or 19+ mm25(pre-17025)
BS 52D	.	.	.	.	.	(0.002)	.	.	.	.	last	44 mm Ø x ~7 or ~15 mm
12X 15253T	0.0216	.	.	.	0.374	.	.	Ta:0.007	0.276	.	.	~40 mm Ø x ~15 mm
BS 4150MOD	0.005	.	0.070	0.0010	.	(0.003)	0.0010	.	.	.	last	38 mm Ø x ~7 mm
BS 42A	.	.	.	.	.	.	.	.	.	.	.	37 mm Ø x ~7 or 19+ mm
12X 15217R	.	0.0044	.	.	0.102	.	.	.	0.100	.	.	~40 mm Ø x ~15 mm
BS 42	(0.004)	.	.	.	(0.002)	.	.	.	(0.002)	.	.	44 mm Ø x ~7 or 19+ mm17025
12X 15255R	.	.	.	.	0.203	.	Ta:0.034	.	0.143	.	(0.011)	~40 mm Ø x ~15 mm
BS 4150MOD-A	0.0038	(0.0004)	.	(0.0007)	(0.002)	0.0017	(0.0004)	(0.002)	0.0026	Fe:96.7	(0.0005)	38 mm Ø x ~7 or 19+ mm17025

RM		RESULFURIZED STEEL XRF SET														
Part SYLAB Ref: BS		AVAILABLE INDIVIDUALLY										~7 mm discs				
Grade	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Co	N	Sn	V	As
1117	BS 65C	0.150	1.19	0.007	0.115	0.24	0.24	0.063	0.066	0.012	(0.002)	(0.007)	0.0084	0.02	0.002	(0.008)
1140 + P	BS 52D	0.436	0.97	0.068	0.088	0.18	0.060	0.18	0.16	0.09	0.028	0.012	0.0025	0.004	0.002	.
1141	BS 66B	0.418	1.57	0.018	0.110	0.02	0.031	0.033	0.094	0.019	0.002	0.005	(0.006)	0.001	0.002	.
1215	BS 66K	0.051	0.86	0.062	0.322	(0.004)	0.013	0.012	0.006	0.003	0.002	0.005	(0.0074)	<0.001	0.001	.

SILICON STEEL																
# = class, where 1 = CRM, 2 = RM, and 3 = RM with no uncertainties																
#	SYLAB Ref	Si	C	Mn	P	S	Cu	Ni	Cr	Al	Als	Mo	N	Sn	Ti	
1	SRM 1218	(3.2)	0.0029	0.014	(0.002)	0.0011	0.003	(0.002)	0.006	0.005	.	(0.003)	.	.	(0.004)	
1	SRM 1135	3.19	0.027	0.094	0.006	0.026	0.056	0.050	0.022	0.0028	.	0.014	.	0.004	.	
1	SRM 1134	2.889	0.0261	0.2751	0.0276	0.0095	0.0707	0.0375	0.0198	(0.329)	.	0.0087	.	0.0034	.	
1	VS UG91	2.23	0.49	.	0.0038	0.0021	0.057	0.039	0.064	0.048	0.048	0.058	0.010	.	0.038	



#	SYLAB Ref	Si	C	Mn	P	S	Cu	Ni	Cr	Al	Als	Mo	N	Sn	Ti
1	12X 15251U	2.05	1.017	0.910	0.0253	0.0215	0.1194	0.896	0.612	0.1085	.	0.205	0.0031	0.0108	.
1	12X 15259Q	1.81	0.603	0.401	0.0401	0.0704	0.200	4.02	0.512	0.1488	.	0.407	0.0151	0.053	.
1	ECRM 196-2D	1.808	0.0060	0.364	0.00369	0.00065	0.0057	0.0401	0.0282	0.2167	.	0.0142	0.00178	0.00047	0.00253
1	NCS HS11751a	1.76	0.574	0.792	0.020	0.014	0.011	0.019	0.024	.	.	.	.	.	.
1	ECRM 186-1D	1.72	0.610	0.870	0.022	0.035	0.281	0.190	0.218	0.014	.	0.048	.	.	.
1	BS 300	1.68	0.410	0.721	0.0046	0.0006	0.118	1.867	0.803	0.099	.	0.370	0.0023	0.0053	0.0096 17025
1	12X 44220A	1.662	0.417	0.874	0.0050	0.0009	0.031	1.89	0.846	0.029	.	0.401	0.0030	0.0019	.
1	12X 15261X	1.513	0.546	0.483	0.090	0.0518	0.308	0.0985	0.496	1.648	.	1.594	.	0.0172	0.385
2	CZ CM-14A	1.15	0.523	1.58	0.051	0.028	0.30	1.14	1.13	0.063	.	0.395	0.0095	0.027	0.40
1	12X 15258P	1.01	0.392	1.23	0.067	0.032	0.109	0.497	0.631	0.087	.	0.361	.	0.071	0.100
1	SS 603/2	0.97	0.79	0.236	0.020	0.056	(0.05)	(0.03)	(0.04)	0.076	.	(0.004)	.	.	.
1	SS 405/2	0.947	0.044	0.903	0.0095	0.058	0.022	0.102	0.206	0.330	.	0.025	(0.011)	.	.
1	SS 113	0.931	0.837	1.207	0.0595	0.0294	0.179	0.0784	1.248	0.0151	.	0.056	0.0109	0.0067	0.0390
1	SS 604/2	0.75	0.199	1.91	0.016	0.072	(0.07)	(0.09)	(0.06)	0.008	.	(0.02)	.	.	.

SYLAB Ref	As	B	Ca	Co	Nb	O	Pb	Sb	Ta	V	W	Zr	Units
SRM 1218	.	.	.	(0.002)	.	.	.	.	.	(<0.001)	.	(0.002)	32 mm Ø x 19 mm
SRM 1135	.	.	.	.	.	.	.	.	.	<0.01	.	.	31 mm Ø x 19 mm
SRM 1134	.	.	.	.	.	.	.	.	.	.	.	.	31 mm Ø x 19 mm
12X 15251U	.	.	.	0.228	0.266	.	.	.	.	0.391	0.0393	.	~40 mm Ø x ~15 mm
12X 15259Q	.	.	.	0.141	0.249	.	.	.	.	0.139	0.49	.	~40 mm Ø x ~15 mm last
ECRM 196-2D	0.00033	0.00014	0.00071	0.0138	Mg:0.00075	.	.	.	.	0.00368	.	Zn:0.00019	38 mm Ø x 25 mm
NCS HS11751a	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
ECRM 186-1D	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 25 or 30 mm
BS 300	0.0030	0.0003	0.0008	0.0079	0.0031	(0.0004)	(0.000026)	0.0007	(0.0012)	0.070	0.0009	last	38mm Ø x ~12 or 19mm Fe:93.8
12X 44220A	0.0026	.	.	.	.	.	.	.	.	0.0764	.	.	~38 mm Ø x ~15 mm
12X 15261X	0.0051	.	.	0.333	0.601	.	.	.	.	0.122	0.269	0.0297	~40 mm Ø x ~15 mm
CZ CM-14A	0.016	0.0062	(0.004)	0.015	0.115	.	0.013	0.006	0.015	0.345	0.021	0.044	~39 mm Ø x 25 mm last
12X 15258P	.	0.0100	.	0.310	0.133	.	.	.	(0.002)	0.378	0.125	.	~40 mm Ø x ~15 mm
SS 603/2	.	.	.	(0.01)	.	.	.	.	.	(0.001)	.	(<0.005)	44 mm Ø X 19 mm



SYLAB Ref	As	B	Ca	Co	Nb	O	Pb	Sb	Ta	V	W	Zr	Units
SS 405/2	.	.	.	.	.	.	.	.	.	0.411	.	.	38 mm Ø x 19 mm
SS 113	0.0020	0.0066	.	0.0415	0.0487	.	.	.	.	0.201	0.012	0.0029	44 mm Ø x 19 mm
SS 604/2	.	.	.	(0.01)	.	.	.	.	.	(0.001)	.	(<0.005)	44 mm Ø X 19 mm

LOW ALLOY STEEL WITH C > 0.3% - CONTINUED ON THE NEXT PAGE
= class, where 1=CRM, 2=RM, 3=RM no uncertainties

#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	N	Nb	Ti
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	.	.
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
1	IMZ 65/2	1.19	0.27	0.013	0.007	0.13	0.059	0.067	0.079	0.030	.	.	.	.	.	.
1	14X 72305A	1.085	0.349	0.0128	0.0028	0.206	0.149	0.089	0.425	0.0049	.	.	0.0231	0.0068	.	.
1	12X 52986A	1.023	0.372	0.0049	0.0011	0.246	0.077	0.0411	1.418	0.0258	(0.002)	.	0.0169	(0.002)	.	.
2	BS 53G	1.02	0.35	0.014	0.015	0.23	0.160	0.090	1.53	0.019	.	0.008	0.034	0.0084	.	(0.002)
1	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
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	12X 19965A	0.936	0.600	0.0196	0.0081	0.247	0.148	0.141	1.713	0.0256	.	.	0.210	0.0087	.	.
1	SS 401/2	0.935	1.19	0.026	0.0078	0.60	0.101	0.019	0.138	0.074	.	0.0042	0.49	0.0159	.	.
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	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	.	.
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	12X 10550	0.549	0.685	0.0184	0.0055	0.281	0.0290	0.0247	0.338	0.0325	.	.	0.0086	0.0051	.	.
1	12X 61500A	0.530	0.912	0.0104	0.0102	0.240	0.157	0.0976	1.023	(0.007)	0.0067	.	0.0195	.	.	.
1	12X LA3C	0.500	1.693	0.0274	0.0442	0.163	0.213	0.280	0.375	0.0410	.	0.0475	0.303	0.0039	.	.
1	IARM 34C	0.50	0.739	0.0090	0.0011	0.30	0.078	0.085	0.914	0.068	.	0.005	0.022	0.0030	0.004	0.0045
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	.	.
1	BS 43A	0.49	0.82	0.0074	0.025	0.252	0.18	0.24	0.92	(0.003)	.	0.008	0.059	0.0072	(0.0017)	(0.002)
1	BS 1144	0.483	1.55	0.022	0.243	0.262	0.462	0.097	0.193	(0.002)	.	0.011	0.017	0.0093	(0.004)	0.002
1	IPT 503	0.456	0.682	0.027	0.027	0.218	0.129	0.063	0.160	0.018	.	0.006	0.020	0.0082	.	0.0011
1	SRM C1173	0.453	0.174	0.031	0.092	1.38	0.204	4.04	2.63	.	.	.	1.46	.	.	0.037
1	12X 41450A	0.446	1.011	0.0093	0.0031	0.261	0.1318	0.187	1.194	0.0220	.	.	0.340	0.0080	.	.
2	BS XCCV	0.44	1.75	0.012	0.024	0.28	0.015	0.019	0.041	0.033	.	0.006	0.007	0.0056	(<0.002)	(0.002)



#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	N	Nb	Ti
1	12X LA3B	0.439	1.176	0.0215	0.0379	0.16	0.173	0.300	0.357	0.0300	.	0.0300	0.302	0.0080	.	.
1	NM PC-4	0.43	0.80	0.043	0.045	0.34	.	.	0.26	.	.	.	.	.	.	.
1	BS 4340A	0.423	0.766	0.0062	(0.0008)	0.253	0.128	1.80	0.879	0.031	.	0.0111	0.259	0.0102	(0.002)	(0.0011)
1	SRM 1173	0.423	0.19	0.033	0.092	1.28	0.204	4.06	2.70	.	.	.	1.50	.	.	.
2	HRT FE2015-N	0.42	0.83	0.007	0.028	0.24	0.15	0.32	1.03	0.023	.	.	0.21	0.0057	.	.
1	BS 4340	0.418	0.695	0.0119	0.0187	0.279	0.149	1.79	0.807	0.028	.	0.0068	0.231	0.0080	(0.001)	0.0014
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	.	.
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
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	SS 225/2	0.40	0.56	0.019	0.012	0.23	.	1.43	1.08	.	.	.	0.34	.	.	.
1	IPT 504	0.395	1.474	0.019	0.031	0.232	0.096	0.048	0.098	0.032	0.028	0.0077	0.009	0.0078	(0.012)	0.0011
1	12X 826M40A	0.395	0.529	0.0094	0.0025	0.248	0.1294	2.408	0.649	0.0404	.	.	0.510	0.0089	.	.
1	BS 4942A	0.393	0.64	(0.007)	0.0013	0.275	0.067	0.058	0.976	0.011	.	0.0077	0.538	0.0072	(0.0015)	0.0031
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	12X 605M36A	0.373	1.504	(0.009)	0.0317	0.0283	0.199	0.146	0.243	0.0105	.	0.0151	0.292	0.0095	.	.
1	12X 12700A	0.364	0.636	0.0205	0.0116	0.238	0.0342	0.0197	0.070	0.055	.	0.0047	0.0345	0.0073	.	.
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	12X 352E	0.356	0.817	0.067	0.101	0.413	0.125	0.344	0.248	0.263	.	0.025	0.230	.	0.063	0.240
1	12X 349E	0.319	0.600	0.0119	0.0128	0.256	0.156	0.216	0.131	0.154	.	0.0194	0.077	.	.	0.090
1	12X 41300A	0.319	0.551	0.0082	0.0156	0.183	0.131	0.084	0.996	0.027	.	.	0.217	0.0095	.	.
1	SS 219/4	0.314	0.81	0.011	0.027	0.079	0.088	2.55	0.66	.	.	.	0.58	.	.	.
1	BS 8630	0.315	0.752	0.0032	0.0043	0.261	0.046	0.544	0.477	0.023	.	0.0029	0.194	0.0038	(0.0006)	0.0008
2	HRT FE2010-N	0.31	0.56	0.015	0.034	0.28	0.05	0.25	2.45	0.049	.	0.012	0.17	.	.	.
1	SS 222/1	0.3095	0.618	0.0175	0.0089	0.227	0.150	3.536	0.0535	.	.	0.0379	0.0287	0.0100	.	.
1	BS 4130	0.303	0.541	0.0105	0.0113	0.245	0.221	0.088	0.924	0.0242	.	0.0065	0.168	0.0072	0.0015	0.0009
1	SS 615/1	0.30	1.68	.	(0.02)	0.17	(0.05)	4.01	0.49	.	.	.	0.21	.	.	.



LOW ALLOY STEEL WITH C > 0.3% - CONTINUED FROM THE PREVIOUS PAGE

SYLAB Ref	As	B	Ca	Fe	Mg	O	Pb	Sb	Sn	Ta	V	W	Zr	Units
SS 402/2	.	.	.	.	.	.	.	.	.	.	0.194	.	.	38 mm Ø x 19 mm
ECRM 035-2D	0.0017	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm
14X 72305A	.	.	.	.	.	.	.	.	0.0101	.	0.0045	.	.	~40 mm Ø x ~15 mm
IMZ 172	.	.	.	.	.	.	.	.	0.010	.	0.20	0.011	.	40 mm Ø x 40 mm
12X 52986A	.	.	.	.	.	.	.	.	0.0063	.	0.0615	.	.	~38 mm Ø x ~15 mm
BS 53G	0.004	(0.0001)	(0.0001)	.	.	0.001	.	.	0.007	.	0.006	(0.13)	.	44 mm Ø X ~7 or 19+ mm
NILAB 100LA D	0.004	.	.	.	.	.	.	.	.	.	0.004	.	.	34 mm Ø x 20 mm
BS A485-1	0.006	.	.	.	.	(0.0008)	.	.	0.011	.	0.003	.	.	39 mm Ø x ~7 or 19+ mm
CZ LA-4C	(0.003)	0.0005	.	.	.	.	.	.	(0.006)	.	(0.010)	0.008	.	~37 mm Ø x 25 mm
12X 19965A	.	.	.	.	.	.	.	.	0.0070	.	0.0087	.	Zn:0.0008	~41 mm Ø x ~15 mm
SS 401/2	.	.	.	.	.	.	.	.	.	.	0.496	.	.	38 mm Ø x 19 mm
IARM 172A	(0.005)	0.0003	.	.	.	0.0006	(<0.01)	.	0.003	.	0.003	0.038	.	31 mm Ø x 2 mm
SS 403/2	.	.	.	.	.	.	.	.	.	.	0.341	.	.	38 mm Ø x 19 mm
ECRM 059-2D	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 25 or 30 mm
SS 404/2	.	.	.	.	.	.	.	.	.	.	0.107	.	.	38 mm Ø x 19 mm
12X 10550	0.0059	.	.	.	.	.	.	.	0.0018	.	.	.	Zn:(0.0016)	~40 mm Ø x ~15 mm
12X 61500A	.	.	.	.	.	.	.	.	0.0114	.	0.110	.	Zn: 0.0055	~38 mm Ø x ~15 mm
12X LA3C	0.0301	Zn:(0.004)	.	.	.	.	(0.004)	.	.	.	0.157	.	0.0197	~40 mm Ø x ~15 mm
IARM 34C	0.0024	0.0003	(0.0004)	.	.	0.0008	(0.0003)	(0.001)	0.0058	.	0.206	(0.003)	(0.001)	31 mm Ø x 2 or 18 mm
BS 4941	(0.004)	.	(0.0002)	.	.	0.0017	.	.	0.006	.	0.164	.	.	41 mm Ø x ~7



SYLAB Ref	As	B	Ca	Fe	Mg	O	Pb	Sb	Sn	Ta	V	W	Zr	Units
														or 19+ mm
BS 43A	(0.005)		(0.0002)	(0.0006)[96.8](0.0001)(0.003)			.	(0.002)	0.011	.	0.145	(0.005)	(0.001)	41 mm Ø x ~7 or 19+ mm
BS 1144	0.009	.	.	.	.	0.0016	(0.001)	.	0.0113	.	0.0039	(0.003)	last	38 mm Ø x ~16 mm 17025
IPT 503	.	.	.	.	.	.	0.008	.	.	.	.	.	.	35 mm Ø x 20 mm
SRM C1173	.	.	.	.	.	.	.	.	.	.	0.42	.	.	32 mm Ø x 19 mm
12X 41450A	0.0053	.	.	.	.	.	.	.	0.0090	.	0.0385	.	.	~38 mm Ø ~15 mm
BS XCCV	0.002	.	.	.	.	(0.0018)	(<0.0006)	(0.0003)	(0.0004)	.	(<0.003)	.	(<0.0002)	36 mm Ø x ~7 or 19+ mm
12X LA3B	.	0.0015	.	.	.	.	0.0149	.	.	Zn:0.0098	0.157	.	(0.027)	~40 mm Ø x ~15 mm
BS 4340A	0.0059	(0.0002)	(0.0002)	95.4	0.0004	0.0007	(0.0003)	(0.0018)	0.0081	.	0.0024	0.0005	0.0016	38 mm Ø x ~7 or 19+ mm 17025
SRM 1173	.	.	.	.	.	.	.	.	.	.	0.42	.	.	32 mm Ø x 19 mm
HRT FE2015-N	.	.	.	.	.	.	.	.	.	.	0.006	.	.	35 mm Ø x 20 mm
BS 4340	0.0043	(0.0002)	0.0005	95.5	(0.0002)	0.0012	(0.0002)	(0.0013)	0.0063	.	0.0033	0.0012	0.0005	38 mm Ø x ~7 or 19+ mm 17025
BS 4942	0.005	.	0.0006	.	.	(0.0021)	.	.	0.014	.	0.28	.	.	38 mm Ø x ~7 or 19+ mm
BS 1962	0.007	.	25(pre-17025)	.	(0.0001)	.	(0.001)	.	0.010	.	0.004	.	.	41 mm Ø x ~7 mm last
SS 114	0.0025	0.0008	.	.	.	.	.	.	0.041	.	0.0086	.	0.0051	44 mm Ø x 19 mm
SS 225/2	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
IPT 504	.	.	.	.	.	.	.	.	.	.	.	.	.	36 mm Ø x 20 mm
12X 826M40A	0.0056	.	.	.	.	.	.	.	0.0085	.	.	.	.	~38 mm Ø x ~15 mm
BS 4942A	0.0031	(0.0001)	0.0012	96.8	0.0004	0.0020	(0.0007)	(0.001)	0.0044	.	0.280	(0.0009)	(0.001)	38 mm Ø x ~7 or 19+ mm 17025
IRSID 1731	.	.	.	.	.	.	.	.	.	.	.	.	.	44 mm Ø x 30 mm
12X 605M36A	0.0102	.	0.0033	.	.	.	.	.	0.0101	.	.	.	.	~38 mm Ø x



SYLAB Ref	As	B	Ca	Fe	Mg	O	Pb	Sb	Sn	Ta	V	W	Zr	Units
														~15 mm
12X 12700A	0.0060	0.0014	.	.	.	.	.	.	.	.	0.0033	.	Zn:0.0120	~50 mm Ø x ~20 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
12X 352E	0.029	.	.	.	.	.	.	.	0.109	(0.018)	0.0251	0.275	.	~40 mm Ø x ~15 mm
12X 349E	0.0107	.	.	.	.	.	.	.	0.115	.	0.0262	0.093	.	~40 mm Ø x ~15 mm
12X 41300A	0.0043	.	.	.	.	.	.	.	0.0060	.	.	.	Zn:0.0012	~38 mm Ø x ~15 mm
SS 219/4	.	.	.	.	.	.	.	.	0.011	.	.	.	.	38 mm Ø x 19 mm
BS 8630	0.0038	(0.0002)	(0.0007)	97.3	(0.0007)	0.0008	(0.0007)	0.0012	0.0029	.	0.0006	(0.001)	(0.001)	44 mm Ø x 19+ mm 17025
HRT FE2010-N	.	.	.	.	.	.	.	.	.	.	0.117	(0.014)	.	40 mm Ø x 20 mm
SS 222/1	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
BS 4130	0.0048	(0.0002)	0.0007	[97.5]	0.0002	0.0015	(0.00003)(0.0021)		0.0099	(0.0025)	0.0037	0.0011	17025	38 mm Ø x ~7 or 19+ mm
SS 615/1	.	.	.	.	.	.	.	.	.	.	0.10	.	.	44 mm Ø X 19 mm
VS UG3/11	.	.	.	.	.	.	.	.	.	.	0.064	0.176	.	~45 mm Ø x ~28 mm

LOW ALLOY STEEL WITH 0.13 % < C < 0.3 % - CONTINUED ON THE NEXT PAGE

= class, where 1=CRM and 2=RM

#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	Co	Mo	N	Sn	V
1	12X 16604A	0.299	0.444	0.0064	0.0018	0.239	0.131	1.892	1.912	0.0111	.	.	0.0366	0.334	0.0046	0.0060	0.0069
1	SRM 1269	0.298	1.35	0.012	0.0061	0.189	0.095	0.108	0.201	0.016	.	.	.	0.036	.	.	0.004
1	ECRM 086-1D	0.297	0.879	0.024	0.037	0.206	0.320	0.168	0.150	.	.	0.023	.	.	.	0.026	.
1	SRM 1225	0.274	0.48	0.007	0.014	0.221	.	0.018	0.91	.	.	.	.	0.166	.	.	0.004
1	BS HiCal-1	0.271	1.00	(0.007)	0.0007	1.29	0.152	3.28	1.55	0.070	.	0.0022	0.0024	0.379	.	(0.0002)	0.0027
1	IARM 380A	0.268	1.24	0.021	0.025	0.181	0.265	0.114	0.192	0.0029	.	(0.007)	(0.010)	0.059	(0.012)	0.0117	0.0475
2	RM Fe 2/4	0.26	0.61	0.039	0.016	0.30	0.30	0.68	0.70	(0.001)	.	0.04	0.29	0.47	0.020	0.04	0.46



#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	Co	Mo	N	Sn	V
2	BS 69B	0.258	1.28	0.008	0.013	1.27	0.086	1.71	0.28	0.024	.	.	0.035	0.39	0.0057	0.006	(0.002)
1	12X 12750U	0.258	0.510	0.0078	0.0053	0.599	0.106	0.786	0.792	0.253	.	.	0.581	0.088	.	0.110	0.102
1	12X 32550A	0.257	1.350	0.0061	0.0054	1.59	0.108	1.750	0.377	0.0178	.	0.0054	.	0.417	0.0101	0.0206	0.0222
2	BS 6418	0.255	1.42	0.010	0.004	1.54	0.11	1.74	0.34	0.027	.	0.0044	0.010	0.42	0.0066	0.006	0.003
2	HRT FE2018-N	0.24	0.74	0.012	(0.003)	0.29	0.06	0.43	1.46	0.017	.	.	.	0.75	0.0066	.	0.30
1	12X 722M24A	0.236	0.510	0.0135	0.0199	0.262	0.200	0.208	3.094	0.0187	.	0.0075	.	0.497	.	0.0116	0.0080
1	12X 356D	0.228	0.325	0.057	0.040	0.235	0.402	0.070	0.246	0.031	.	0.025	0.110	0.0299	0.0107	0.0372	0.071
1	ECRM 197-1D	0.219	0.792	0.0073	0.0232	0.275	0.152	0.148	0.451	0.0313	.	0.0083	0.0135	0.402	0.0114	0.0097	.
2	BS 3961	0.215	0.565	0.016	0.022	0.236	0.133	1.67	0.510	0.022	.	.	(0.010)	0.27	0.0079	(0.008)	(0.002)
2	TL 1668	0.2146	1.643	0.0137	0.0012	1.645	0.0108	0.0164	0.0173	0.0371	.	0.0016	0.0031	(0.0014)	0.0043	0.0047	0.0016
1	BS 8620F	0.212	0.85	0.0090	0.033	0.243	0.234	0.427	0.547	0.040	.	0.0078	0.0089	0.206	0.0106	0.0102	0.0054
2	TL 1001	0.2108	0.8645	0.0141	0.0236	0.2141	0.1902	0.5378	0.5290	0.0191	.	(0.0051)	(0.0070)	0.1987	0.0102	0.0090	.
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	.	.
2	BS 3952	0.208	0.546	0.011	0.021	0.264	0.202	0.112	0.105	0.048	.	.	.	0.519	(0.0005)	.	.
1	ECRM 187-2D	0.2038	1.257	0.0066	(0.0300)	0.2111	0.1288	0.1755	1.132	0.0223	.	0.0057	0.0112	0.0623	0.0105	0.0237	0.0122
1	BS 9325A	0.203	0.969	0.0079	0.0045	0.612	0.163	3.29	1.50	0.0056	.	0.0024	0.0093	0.358	0.0076	(0.0003)	(0.0024)
1	BS 4820A	0.203	0.64	0.008	0.014	0.185	0.212	3.28	0.116	0.029	.	0.006	0.008	0.203	0.0076	0.0097	0.0010
1	12X 12747V	0.201	1.240	0.0648	0.0275	0.298	0.232	0.494	0.58	0.0271	.	0.0075	0.211	0.606	0.025	0.144	0.0272
2	BS 4620	0.189	0.57	0.006	0.018	0.25	0.216	1.75	0.072	0.032	.	0.0084	0.012	0.24	0.0078	0.013	(0.0008)
1	BS 51F	0.188	0.519	0.016	0.017	0.24	0.231	1.68	0.156	0.022	.	(0.005)	0.0086	0.224	0.0061	0.008	0.0030
1	ECRM 192-1D	0.1875	1.377	0.0029	0.0010	0.219	0.0453	0.755	0.0717	0.0306	0.0285	.	0.0055	0.482	0.0118	.	.
2	BS LF3	0.183	0.52	0.006	0.018	0.206	0.080	3.36	0.098	0.017	.	0.006	0.056	0.056	0.0054	0.006	(0.002)
2	HRT FE2012-N	0.18	0.70	0.010	0.008	0.31	0.14	0.13	0.25	0.030	.	.	.	0.26	.	.	.
1	12X 19MNV56A	0.174	1.563	0.0114	0.0245	0.357	0.203	0.110	0.1087	0.0101	.	.	.	0.0270	0.0210	0.0214	0.0939
1	ECRM 087-1D	0.174	0.671	0.010	0.046	0.263	0.171	0.118	0.078	.	.	0.024	0.015	0.021	.	0.017	.
1	12X 15180A	0.170	1.196	0.0110	0.0022	0.212	0.141	0.1030	0.118	0.018	.	0.0117	.	0.0231	0.0051	0.0115	.
1	ECRM 194-2D	0.1694	1.282	0.0137	0.00049	0.2974	0.0313	0.3316	0.760	0.0669	.	0.00208	0.00328	0.402	0.00319	.	0.00161
2	BS 3962	0.168	0.58	0.007	0.018	0.244	0.146	1.83	0.138	0.023	.	0.005	0.007	0.219	0.0072	0.007	(0.001)
2	HRT FE1999-N	0.16	0.59	0.011	0.005	0.22	0.11	0.09	0.87	0.027	.	.	.	0.46	0.0091	.	0.021

analysis listed in mass %

31-34 mm Ø x 19 mm

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

continued

analysis listed in mass %

analysis listed in mg/kg

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

LOW ALLOY STEEL WITH 0.13 % < C < 0.3 % - CONTINUED FROM THE PREVIOUS PAGE

SYLAB Ref	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Ta	Ti	W	Zn	Zr	Units
12X 16604A	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø X ~15 mm
SRM 1269	.	.	.	.	.	.	0.005	.	.	.	.	.	.	32 mm Ø x 19 mm
ECRM 086-1D	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 25 or 30 mm
SRM 1225	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
BS HiCal-1	(0.0001)	0.0140	[91.9]	(0.0003)	(0.002)	.	(0.0005)	.	.	0.0037	(0.0009)	.	(0.0008)	~38 mm Ø x ~30 mm 17025
RM Fe 2/4	(0.0027)	<0.001	.	.	(0.011)	.	<0.02	<0.03	.	(0.0065)	0.19	.	<0.02	40 mm Ø x 40 mm
BS 69B	.	.	.	.	.	.	.	.	.	(0.002)	.	.	.	38 mm Ø x ~7 or 19+ mm
12X 12750U	.	.	.	.	0.111	.	.	.	.	0.159	0.100	.	.	~40 mm Ø x ~15 mm
12X 32550A	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
BS 6418	.	.	.	.	.	0.0012	.	.	.	0.003	.	.	.	57 mm Ø x ~7 or 19+ mm
HRT FE2018-N	(0.0003)	.	.	.	.	.	.	.	.	.	.	.	.	36 mm Ø x 20 mm
12X 722M24A	.	.	.	.	.	.	.	.	.	.	.	0.0028	.	~38 mm Ø x ~15 mm



SYLAB Ref	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Ta	Ti	W	Zn	Zr	Units
12X 356D	(0.002)	Ca:0.0063	.	Se:0.010	0.019	.	0.034	0.0203	.	0.016	0.086	0.011	.	~40 mm Ø x ~15 mm
ECRM 197-1D	.	.	.	.	.	.	.	.	.	0.0005	.	.	.	38 mm Ø x 25 mm
BS 3961	.	.	.	.	.	.	.	.	.	(<0.003)	.	.	.	44 mm Ø X ~7 or 19+ mm
TL 1668	(0.00024)	0.0019	.	(0.0003)	(0.0002)	.	(0.0007)	(0.0003)	.	0.0032	.	0.0008	(0.0003)	37 mm Ø x 20 mm
BS 8620F	(0.0003)	0.0020	97.1	(0.0002)	0.0025	0.0026	(0.002)	(0.002)	17025	0.0016	0.0016	.	(0.0008)	38 mm Ø x ~7 or 19+ mm
TL 1001	.	.	.	.	.	.	.	.	.	(0.0134)	.	.	.	40 mm Ø x 20 mm
IPT 502	.	.	.	.	.	.	.	.	.	0.0016	.	.	.	36 mm Ø x 20 mm
BS 3952	.	.	.	.	.	.	.	.	.	.	.	.	.	39 mm Ø x ~7 or 19+ mm
ECRM 187-2D	0.00048	.	.	.	.	.	.	.	.	.	.	.	.	39 mm Ø x 28 mm
BS 9325A	(0.0001)	0.0039	92.8	(0.0002)	0.0017	.	(0.0003)	.	(0.010)	0.0030	0.024	17025	(0.001)	~40 mm Ø x ~30 mm
BS 4820A	0.0002	0.0003	.	0.0003	(0.002)	0.0011	(0.0002)	0.0024	.	0.0012	(0.002)	17025	.	38 mm Ø x ~7 or 19+ mm
12X 12747V	.	.	.	.	.	.	.	.	.	0.099	0.0276	.	.	~40 mm Ø X ~15 mm
BS 4620	0.00006	0.0001	.	0.0001	0.0001	0.0009	0.0002	0.0024	.	0.0026	0.0009	0.0002	.	38 mm Ø x ~7 or 19+ mm
BS 51F	(0.0002)	(0.0005)[96.7]	.	(0.0001)	(0.0007)	(0.002)	(0.0008)	(0.003)	(0.005)	0.0012	(0.0024)	17025	(0.0009)	38 mm Ø x ~7 or 19+ mm
ECRM 192-1D	.	.	.	.	.	.	.	.	.	.	.	.	.	~35 mm Ø x ~30 mm
BS LF3	0.0001	(0.0001)	.	.	.	0.004	.	.	.	.	.	.	.	38 mm Ø x ~7 or 19+ mm
HRT FE2012-N	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm
12X 19MNVS6A	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
ECRM 087-1D	.	.	.	.	.	.	.	0.0046	.	.	.	.	.	38 mm Ø x 25 or 30 mm
12X 15180A	.	.	.	.	.	.	.	.	.	.	.	0.0016	.	~40 mm Ø x ~20 mm
ECRM 194-2D	0.00155	.	.	.	0.0290	.	.	.	.	0.00322	.	.	.	39 mm Ø x 28 mm
BS 3962	.	.	.	.	.	.	.	.	.	.	.	.	.	37 mm Ø x ~7 or 19+ mm
HRT FE1999-N	0.0002	.	.	.	0.002	.	.	.	.	0.001	.	.	.	40 mm Ø x 20 mm last
BS XCCT	.	.	.	.	(0.001)	(0.005)	(<0.001)	(0.0004)	.	(0.002)	.	.	(<0.002)	36 mm Ø x ~7 or 19+ mm
BS 15A	(0.0002)	(0.0005)	.	.	0.041	.	(0.0003)	(0.003)	.	0.008	(0.004)	.	0.022	32 mm Ø x 17 mm last
ECRM 193-1D	.	.	.	.	0.0232	.	.	.	.	(0.0013)	.	.	.	36-41 mm Ø x 28-35 mm
12X 15252R	.	.	.	.	0.067	.	.	.	.	(0.0007)	(0.0013)	.	.	~40 mm Ø x ~15 mm
BS 47A	.	.	.	.	0.002	(0.003)	.	.	.	0.003	.	.	.	38 mm Ø x ~7 or 19+ mm



LOW ALLOY STEEL WITH C < 0.13 %

= class, where 1 = CRM and 2 = RM

#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	N	Sn	V
1	12X 15256Q	0.123	0.492	0.0125	0.0163	0.190	0.0550	5.33	0.362	0.1300	.	0.493	0.0740	0.0056	0.107	0.619
1	12X 93106A	0.122	0.605	0.0071	0.0103	0.206	0.199	3.255	1.107	0.0246	.	.	0.0879	0.0098	0.0094	0.0029
2	BS 47B	0.122	0.39	0.014	0.022	0.22	0.12	0.105	4.78	0.018	.	.	0.45	0.023	0.006	0.004
1	SRM 1138a	0.11	0.35	0.035	0.056	0.25	0.09	0.10	0.13	.	.	.	0.05	.	.	0.02
1	IPT 500	0.106	0.844	0.016	0.0048	0.282	0.270	0.018	0.612	0.046	.	0.0046	0.0013	0.0092	0.002	0.003
1	12X LA1B	0.104	1.262	0.0090	0.060	0.777	0.0572	0.210	1.026	0.0104	.	0.0144	0.068	0.0144	.	0.448
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
2	BS 58C	0.098	0.57	0.011	0.014	0.29	0.14	3.20	1.29	(0.055)	.	.	0.11	.	(0.012)	.
1	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 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	SS 421	(0.049)	(0.11)	(0.012)	(0.027)	(0.07)	.	.	.	.	.	.	(0.028)	.	.	(<0.02)
1	ECRM 064-2D	0.0026	0.1641	.	.	0.0065	0.0077	0.0115	.	.	.	0.0027	0.00077	0.0026	0.00051	0.00015

SYLAB Ref	As	B	Ca	Ce	Fe	Nb	O	Pb	Sb	Ti	W	Zr	Units
12X 15256Q	.	.	.	.	.	0.0509	.	.	.	.	0.101	.	~40 mm Ø x ~15 mm
12X 93106A	0.0050	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
BS 47B	0.004	.	.	.	.	.	(0.004)	.	.	.	.	.	38 mm Ø x ~7 or 19+mm
SRM 1138a	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 13 mm
IPT 500	0.0020	.	.	.	.	0.008	.	.	.	0.0014	.	.	34 mm Ø x 18 mm
12X LA1B	0.0212	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
BS 58E	0.003	(0.0002)	(0.0002)	.	.	.	0.0008	.	.	(0.002)	.	.	38 mm Ø x ~7 or 19+mm
BS 58C	.	.	.	.	.	.	.	.	.	no	uncertainties	.	39 mm Ø x ~17 mm last
SRM 1226	.	.	.	.	.	(0.005)	.	(0.0001)	.	0.0021	(0.005)	(0.010)	32 mm Ø x 19 mm
NCS HS20745	.	.	.	0.014	.	.	La: 0.0076	.	.	.	.	.	35 mm Ø x 40 mm
SRM 1271	.	.	.	.	.	0.025	.	.	.	.	.	.	32 mm Ø x 19 mm
SRM C1285	.	.	.	0.021	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm



SYLAB Ref	As	B	Ca	Ce	Fe	Nb	O	Pb	Sb	Ti	W	Zr	Units
SS 421	.	.	.	.	.	.	.	.	.	.	0.52	.	38 mm Ø x 19 mm
ECRM 064-2D	0.0036	.	.	.	.	0.0146	.	0.00018	.	.	.	.	38 mm Ø x 25 or 30 mm

LOW ALLOY STEEL XRF SET

Part SYLAB Ref: BS LAS-24		Set of 24 samples, each 35 - 45 mm Ø x 7 mm discs										CRM, 17025		others are RM			
Alloy	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	As	Ca	Co	N	Sn	V
300M	BS 4340M	0.414	0.74	0.004	<0.001	1.65	0.134	1.78	0.78	0.35	0.076	0.007	.	0.013	0.0020	0.009	0.056
1345	BS XCCV	0.44	1.75	0.012	0.024	0.28	0.015	0.019	0.041	0.007	0.033	0.0023	.	0.006	0.0056	(0.0004)(<0.003)	
3115	BS XCCT	0.158	0.52	0.005	0.011	0.28	0.027	1.27	0.65	0.020	0.006	0.004	.	0.017	0.0076	(0.002)	0.031
4130	BS 3932	0.321	0.54	0.016	0.018	0.33	0.200	0.19	1.00	0.229	0.020	0.004	0.0043	0.011	0.0070	0.012	0.005
4140	BS 1962	0.41	0.94	0.007	0.011	0.242	0.224	0.16	1.05	0.229	0.018	0.007	.	0.008	0.0095	0.010	0.004
4150 + S	BS 42	0.516	1.24	0.021	0.073	0.235	0.252	0.183	0.67	0.190	0.020	(0.004)	.	0.012	0.0080	0.012	0.003
4330	BS 4330MOD	0.316	0.92	0.0052	0.0010	0.269	0.105	1.83	0.848	0.478	0.031	0.0038	(0.001)	0.034	0.0031	0.0062	0.083
4340	BS 4340	0.418	0.695	0.0119	0.0187	0.279	0.149	1.79	0.807	0.231	0.028	0.0043	0.0005	0.0068	0.0080	0.0063	0.0033
4615	BS 51E	0.15	0.59	0.010	0.021	0.28	0.22	1.75	0.14	0.21	0.028	.	.	0.035	0.0086	0.010	(0.0011)
4620	BS 4620	0.189	0.57	0.006	0.018	0.25	0.216	1.75	0.072	0.24	0.032	(0.0084)	(0.0001)	0.012	0.0078	0.013	(0.0008)
4820	BS 4820	0.188	0.57	0.010	0.025	0.25	0.11	3.29	0.12	0.21	0.020	0.005	0.0046	0.008	0.0079	(0.008)	(0.002)
6150	BS 43A	0.49	0.82	0.0074	0.025	0.252	0.18	0.24	0.92	0.059	(0.003)	(0.005)	(0.0006)	0.008	0.0072	0.011	0.145
8620	BS 1931	0.194	0.84	0.007	0.018	0.235	0.116	0.42	0.50	0.168	0.021	0.007	(0.0008)	0.012	0.0079	0.007	0.002
8822	BS 8822	0.228	0.92	0.011	0.025	0.26	0.17	0.47	0.52	0.34	0.022	0.007	(0.0004)	0.019	0.0085	0.011	0.003
8740	BS 67B	0.40	0.94	0.007	0.020	0.23	0.19	0.53	0.51	0.22	0.024	.	.	0.011	0.0078	0.009	(0.002)
9310	BS 58D	0.127	0.45	0.010	0.005	0.32	0.156	3.02	1.35	0.14	0.042	.	.	0.009	0.0147	0.012	0.005
9325	BS 9325	0.25	0.91	0.008	0.007	0.32	0.13	3.29	1.48	0.31	0.030	(0.004)	0.0049	0.010	0.0089	0.009	0.004
P-20	BS 55E	0.307	0.72	0.014	0.024	0.60	0.032	0.053	1.66	0.40	(0.004)	.	.	(0.005)	0.0096	0.002	0.019
AMS 6418	BS 69B	0.2258	1.28	0.008	0.013	1.27	0.086	1.71	0.28	0.39	0.024	.	.	0.035	0.0057	0.006	(0.002)
A193	BS 4942	0.414	0.56	0.015	0.021	0.22	0.165	0.16	0.97	0.54	(0.004)	0.005	0.0006	0.010	0.0080	0.014	0.28
A485-1	BS A485-1	0.98	1.10	0.019	0.004	0.62	0.16	0.13	1.07	0.029	0.017	0.006	.	0.010	0.0060	0.011	0.003
E52100	BS 53E	1.08	0.37	0.007	0.012	0.24	0.11	0.26	1.45	0.10	0.003	.	.	0.011	0.0086	0.005	0.004
Nitriding	BS 68C	0.38	0.60	0.018	0.008	0.305	0.178	0.166	1.77	0.36	1.06	(0.004)	(0.0002)	0.011	0.0045	0.008	0.007



Alloy	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	As	Ca	Co	N	Sn	V
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)

this item sold out, most BS are available as XRF

CRM SOLUBLE ELEMENTS IN LOW ALLOY STEEL SET													
available in set/7 only		-S = Soluble,			-T = Total			38 mm Ø x 30 mm					
SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al-S	Al-T	B-S	B-T	Mo
NCS HS11717a-1	0.0023	0.018	0.012	0.0027	0.0054	0.0036	0.011	0.023	0.0069	0.0078	0.0002	0.0004	0.0053
NCS HS11717a-2	0.0028	0.104	0.014	0.011	0.077	0.049	0.045	0.042	0.024	0.026	0.0011	0.0012	0.304
NCS HS11717a-3	0.032	0.303	0.018	0.067	1.55	0.403	0.563	0.236	0.295	0.298	0.0018	0.0020	0.034
NCS HS11717a-4	0.096	0.669	0.012	(0.050)	1.09	0.316	0.400	0.102	0.214	0.216	0.0085	0.0096	0.144
NCS HS11717a-5	0.243	1.04	0.030	0.042	0.769	0.248	0.393	0.106	0.101	0.104	0.0071	0.0074	0.105
NCS HS11717a-6	0.387	1.47	0.038	0.030	0.436	0.167	0.206	0.409	0.050	0.051	0.0047	0.0049	0.071
NCS HS11717a-7	0.498	2.10	0.050	0.022	0.176	0.075	0.107	0.612	0.022	0.024	0.0031	0.0033	0.196

SYLAB Ref	As	Bi	Co	N	Nb	Pb	Sb	Sn	Ti	V
NCS HS11717a-1	0.0034	(<0.00001)	0.0015	0.0016	(<0.0005)	(<0.0001)	0.00041	0.00020	0.0002	(0.0001)
NCS HS11717a-2	0.011	(<0.00001)	0.058	0.0017	0.031	(<0.0001)	0.00031	0.0073	0.020	0.011
NCS HS11717a-3	0.019	(<0.00001)	0.099	0.0032	0.079	(<0.0001)	0.00041	0.016	0.049	0.052
NCS HS11717a-4	0.073	(0.00001)	0.146	0.0031	0.223	(<0.0001)	0.00044	0.049	0.202	0.098
NCS HS11717a-5	0.071	(0.00001)	0.296	0.0048	0.318	(<0.0001)	0.00052	0.099	0.178	0.257
NCS HS11717a-6	0.045	(0.00001)	0.248	0.0049	0.106	(<0.0001)	0.00048	0.151	0.124	0.201
NCS HS11717a-7	0.034	(0.00001)	0.198	0.0063	0.153	(<0.0001)	0.00050	0.197	0.088	0.147

RM		TOOL STEEL XRF SET													
Part SYLAB Ref: BS TS-18		AVAILABLE INDIVIDUALLY							17025			~7 mm discs			
Grade	SYLAB Ref	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



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

TOOL STEEL - CONTINUED ON THE NEXT PAGE

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

#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Ti	V	W	Al
1	BS PM15	3.54	0.416	0.0198	0.0127	0.912	0.142	0.203	5.33	0.0330	1.22	0.111	0.0029	14.79	0.109	0.0025
2	BS 10V	2.46	0.52	0.019	0.079	0.89	0.076	0.08	5.41	0.009	1.30	0.064	.	9.50	0.013	(<0.002)
1	BS A-11	2.42	0.507	0.023	0.123	0.98	0.092	0.25	5.21	0.044	1.25	0.110	0.0019	9.24	(0.080)	0.0054
1	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	BS TS15	1.64	0.27	(0.017)	0.067	0.357	0.065	(0.18)	4.12	4.87	0.48	0.045	0.0016	4.81	11.6	0.0032
1	ECRM 274-1D	1.563	0.397	0.0148	0.0096	1.057	0.0281	0.077	8.036	(0.0230)	1.4551	0.0769	(0.0011)	4.010	0.0087	(0.0025T)
2	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	.	.	0.046	0.035	(0.007)
2	BS A-10	1.41	1.75	0.016	0.022	1.15	0.016	1.82	0.24	(0.010)	1.53	.	.	(0.004)	<0.005	0.006
1	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)



#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Ti	V	W	Al
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	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
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)
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	BS 35D	0.879	1.13	0.021	0.024	0.22	0.141	0.132	0.495	0.012	0.035	.	(0.003)	0.181	0.46	(0.005)
2	14X 14946D	0.85	0.53	0.051	0.048	0.46	0.25	1.06	5.06	0.44	0.21	.	.	1.03	16.9	.
2	BS 32D	0.85	0.30	0.027	0.0022	0.25	0.039	0.053	4.14	0.010	4.92	0.018	.	1.82	6.15	0.018
1	SRM 1157	0.836	0.34	0.011	0.004	0.18	0.088	0.228	4.36	0.028	4.86	.	.	1.82	6.28	.
1	BS M-50	0.834	0.244	0.0066	0.0009	(0.205)	0.064	0.074	4.28	0.0151	4.29	0.0057	(0.0018)	0.99	0.0052	0.073
2	14X 14948C	0.83	0.65	0.011	0.017	0.26	0.04	0.29	4.04	0.16	0.14	.	.	0.65	18.8	.
1	BS 30D	0.745	0.348	0.029	0.0010	0.301	0.116	0.191	3.93	0.101	0.342	0.0168	0.0189	1.077	17.73	0.0123
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	14X HS1C	0.72	0.29	0.018	0.020	0.23	0.07	0.28	4.00	0.25	0.36	0.023	.	1.04	17.2	.
3	CZ HS-1A	0.72	0.28	0.023	0.011	0.28	0.08	0.14	4.15	4.7	0.06	.	0.003	1.33	17.5	0.03
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	BS 39B	0.67	0.62	0.009	0.019	0.214	0.163	1.45	0.79	(0.02)	0.17	.	.	(0.01)	.	(0.011)
1	SS 482/1	0.67	0.26	0.027	0.027	0.14	.	(0.16)	3.95	0.29	0.40	.	.	1.04	17.8	.
1	SS 483/1	0.65	0.22	0.023	0.023	0.16	.	(0.08)	2.90	2.06	0.18	.	.	0.22	9.28	.
2	BS 38C	0.60	0.81	0.011	0.012	2.08	0.26	0.24	0.28	0.036	0.41	0.0081	0.007	0.214	0.004	0.015
1	ECRM 179-2D	0.598	0.539	0.027	.	0.578	0.111	0.0741	1.081	.	0.070	0.0068	.	0.188	1.87	.
1	IARM 47B	0.59	0.79	0.017	0.006	1.96	0.17	0.090	0.23	0.007	0.20	0.0092	0.010	0.17	(0.016)	0.014
2	BS 33D	0.515	0.31	0.016	0.020	0.312	0.040	0.059	1.28	0.045	0.050	.	.	0.22	2.65	0.008
2	BS 33E	0.49	0.29	0.022	0.005	0.20	0.038	0.08	1.25	0.006	0.045	.	(0.002)	0.19	2.75	.
2	CT X67975	0.48	0.56	0.009	0.005	0.28	0.060	0.13	1.00	.	0.53	.	.	0.30	.	.
1	BS D-6	0.472	0.78	0.007	0.0008	0.228	0.130	0.602	0.99	0.012	1.01	0.0031	0.0025	0.122	0.0018	0.037
1	BS H-19	0.404	0.318	0.014	0.011	0.29	0.055	0.114	4.27	4.17	0.356	0.0190	(0.002)	2.05	4.02	<0.001
1	ECRM 276-2D	0.399	0.365	0.0093	0.0189	1.034	0.183	0.203	4.975	.	1.134	0.0116	.	0.296	.	.
1	BS H-13A	0.391	0.445	0.0187	(0.003)	1.13	0.083	0.139	5.11	0.033	1.32	0.034	(0.03)	0.92	0.100	(0.03)
2	CT H13	0.39	0.30	0.015	0.005	1.05	0.061	0.10	5.23	.	1.36	.	.	1.02	.	.
1	ECRM 271-1D	0.3698	0.437	0.0120	0.00045	0.923	0.1371	0.1552	5.002	0.0139	1.247	0.0137	0.0020	0.850	0.0054	0.0234
2	BS 49	0.36	0.33	0.014	0.015	0.92	0.072	0.20	3.51	2.00	2.41	0.0186	0.003	0.62	0.31	0.004



#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Ti	V	W	Al
2	BS 9-4-30	0.316	0.22	0.008	<0.002	0.06	0.088	7.25	1.00	4.46	1.01	0.0014	.	0.09	.	0.004
1	NCS HS20741	0.125	0.957	0.017	0.0045	0.431	.	.	12.91	.	0.41	.	.	.	.	.
1	NCS HS20742	0.083	1.02	0.015	0.0035	0.636	.	.	16.58	.	.	.	.	.	.	.
1	13X 14713A	0.0446	0.495	0.0203	0.0080	0.911	0.0368	0.122	7.17	0.0110	0.0266	0.0065	0.0056	0.0411	.	0.551
1	SS 422	(0.036)	(0.09)	(0.015)	(0.025)	(0.06)	.	.	.	.	(0.033)	.	.	(<0.02)	1.28	.
1	SS 423	(0.030)	(0.07)	(0.017)	(0.027)	(0.05)	.	.	.	.	(0.027)	.	.	(<0.02)	2.06	.
1	SS 424	(0.024)	(0.09)	(0.02)	(0.024)	(0.05)	.	.	.	.	(0.036)	.	.	(<0.02)	3.02	.
1	NCS HS20743	0.015	0.949	0.038	0.0055	0.97	.	.	11.88	.	.	0.0155	0.411	.	.	0.022

TOOL STEEL - CONTINUED FROM THE PREVIOUS PAGE

SYLAB Ref	Als	As	B	Ca	Nb	O	Pb	Sb	Sn	Ta	Zr	Units
BS PM15	.	0.0040	(0.0002)	(0.0001)	0.014	0.0129	(0.00001)	(0.0010)	0.0034	(0.0003)(0.0005)	38	mm Ø x 19+ mm 17025
BS 10V	.	.	.	.	.	.	.	.	.	.	.	41 mm Ø x ~7 or 19+ mm
BS A-11	Fe:79.5	0.0057	0.0008	(0.0002)	(0.0070)	0.028	(0.00006)	(0.001)	0.0055	.	(0.001)	38 mm Ø x ~7 or 19+ mm 17025
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 ~7 or 19+ mm
BS TS15	.	(0.006)	(0.0005)	(0.001)	0.009	(0.018)	.	Fe:71.4	0.0074	.	(0.003)	38 mm Ø x ~7 or 19+ mm 17025
ECRM 274-1D	.	(0.0013)	(0.0005)	.	.	(0.0026)	(0.000064)	(0.0002)	(0.0010)	.	.	38 mm Ø x 25 mm
BS 41A	.	0.002	.	0.0006	.	0.002	.	.	0.002	.	.	38 mm Ø x ~7 or 19+mm 25(pre-17025)
BS 41	.	.	.	.	.	.	.	.	(0.008)	.	.	42 mm Ø x ~7 or 19+ mm 17025
BS A-10	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x ~7 or 19+ mm
BS M-47	.	0.006	.	(0.002)	(0.004)	0.0037	.	.	0.006	.	.	38 mm Ø x ~7 or 19+ mm 17025
SS 487/1	.	(0.012)	.	.	.	.	.	.	(0.006)	.	.	38 mm Ø x 19 mm
DSZU C081	.	.	.	.	.	.	.	.	.	.	.	~35 mm Ø x 25 mm
CT M7	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x ~16 mm
BS 36D	.	0.002	.	.	.	.	.	.	0.016	.	.	38 mm Ø x ~7 or 19+ mm
SS 485/1	.	(0.022)	.	.	.	.	.	.	0.019	.	.	38 mm Ø x 19 mm
ECRM 290-1D	.	.	.	.	.	.	.	.	.	.	.	36-41 mm Ø x 28-35 mm
BS 35D	.	.	.	.	(0.001)	.	.	.	0.006	.	.	38 mm Ø x ~7 or 19+ mm 17025



SYLAB Ref	Als	As	B	Ca	Nb	O	Pb	Sb	Sn	Ta	Zr	Units
14X 14946	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
BS 32D	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x ~7 or 19+ mm
SRM 1157	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
BS M-50	.	0.0035	(0.0001)	(0.001)	0.0008	0.0010	(0.0001)	(0.0006)	0.0045	Fe:88.8	(0.0006)	38 mm Ø x ~7 or 19+ mm17025
14X 14948C	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mmlast of stock
BS 30D	.	0.0128	(0.0002)	0.0004	0.0071	0.0019	(0.0002)	0.0032	0.0246	(0.02)	(0.0001)	38 mm Ø x ~7 or 19+ mm17025
SS 486/1	.	(0.016)	.	.	.	.	.	.	0.014	.	.	38 mm Ø x 19 mm
14X HS1C	.	.	.	.	.	.	.	.	(0.035)	.	.	40 mm Ø x 15 mm
BS 40B	.	0.004	0.0006	.	.	.	.	.	0.005	.	.	41 mm Ø x ~7 or 19+ mm
BS 39B	.	.	.	.	.	.	.	.	(0.011)	.	.	41 mm Ø x ~7 or 19+ mm17025
SS 482/1	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
SS 483/1	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
BS 38C	.	0.011	.	.	(0.002)	.	0.022	.	0.022	.	.	38 mm Ø x ~7 or 19+ mm
ECRM 179-2D	.	.	.	.	0.00144	.	.	0.00175	.	.	.	30 to 35 mm Ø x 20 mm
BS 33D	.	.	.	.	.	.	.	.	0.005	.	.	41 mm Ø x 12 mm
BS 33E	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 12 mm
BS D-6	.	0.011	(0.0003)	0.0011	(0.002)	(0.0008)	(0.0003)	0.0012	0.0104	Mg:	0.0002	38 mm Ø x ~7 or 19 mm17025
BS H-19	.	0.0056	.	.	0.008	0.0071	.	.	0.0056	.	.	38 mm Ø x ~7 or 19+ mm17025
ECRM 276-2D	.	.	.	.	.	.	.	.	0.0133	.	.	38 mm Ø x 25 or 30 mm
BS H-13A	Fe:90.2	0.0050	(0.0007)	(0.0006)	0.0052	(0.016)	(0.0004)	(0.002)	(0.005)	.	(0.002)	38 mm Ø x ~7 or 19+ mm170255
CT H13	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x ~16 mm
ECRM 271-1D	.	0.0057	.	0.0009	.	0.0020	.	.	0.0084	.	.	35 mm Ø x 25 mm
BS 49	.	.	.	.	.	.	.	.	(0.004)	.	.	49 mm Ø x ~7 or 19+ mm
BS 9-4-30	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x ~7 or 19+ mm
NCS HS20741	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 40 mm
NCS HS20742	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 40 mm
IMZ 177	.	.	.	.	.	.	.	.	0.008	.	.	40 mm Ø x 40 mm
13X 14713A	.	.	.	Mg:0.0016	.	.	.	.	0.0034	.	.	~40 mm Ø x ~15 mm
SS 422	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
SS 423	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm



SYLAB Ref	Als	As	B	Ca	Nb	O	Pb	Sb	Sn	Ta		Zr	Units		
SS 424	.	.	.	.	.	.	.	.	.	.		.	38 mm Ø x 19 mm		
NCS HS20743	0.021	.	.	.	.	.	.	.	.	.		.	35 mm Ø x 40 mm		

ALUMINUM IN STAINLESS AND HIGH ALLOY STEEL

= class, where 1 = CRM and 2 = RM

#	SYLAB Ref	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	13X PH17700A	1.172	6.98	16.88	0.0732	0.496	0.0181	0.0008	0.551	0.146	0.0464	0.340	0.0192	0.0201	0.051	0.0390
1	BS 192	1.17	7.11	16.44	0.074	0.835	0.025	0.0005	0.387	0.412	0.104	0.430	0.0290	0.168	0.076	0.124
1	13X PH13800A	1.075	8.04	12.53	0.0386	0.0332	0.0064	0.0030	0.081	0.0449	0.0220	2.10	0.0041	.	0.0122	0.0188
2	BS 184A	1.00	8.34	12.66	0.035	0.06	0.007	0.001	0.080	0.041	0.036	2.20	0.0045	(0.006)	0.051	0.014
1	BS 192A	0.98	7.01	16.44	0.066	0.768	0.021	<0.002	0.300	0.334	0.114	0.28	0.029	0.208	0.083	0.077

SYLAB Ref	As	B	Ca	O	Sn	Ta	W	Zr	Units						
ECRM 299-1D	0.0054	0.0002	.	.	.	.	.	0.1775	40 mm Ø x 25 mm						
13X PH17700A	.	0.0033	.	.	0.0055	.	0.009	.	~38 mm Ø x ~15 mm						
BS 192	(0.005)	(0.0003)	0.0007	0.0014	0.008	(0.001)	0.05	.	38 mm Ø x ~7 or 19+ mm						
13X PH13800A	.	.	.	.	0.0051	.	.	.	~38 mm Ø x ~15 mm						
BS 184A	.	(0.0004)	(0.0003)	(0.0003)	(0.002)	.	0.032	.	38 mm Ø x ~7 or 19+ mm						
BS 192A	(0.0035)	(0.0003)	(0.0006)	(0.0006)	0.008	.	0.048	.	38 mm Ø x ~7 or 19+ mm						

CALCIUM IN STAINLESS AND HIGH ALLOY STEEL

= class, where 1 = CRM and 2 = RM

#	SYLAB Ref	Ca	Ni	Cr	C	Mn	P	S	Si	Cu	Co	Mo	N	Nb	V	W
1	BS Ca304-4	0.0075	8.77	18.26	0.096	0.783	0.0205	0.0070	0.887	0.143	(0.007)	0.0041	0.061	0.063	0.0686	0.0056
1	13X 14923A	0.0044	0.452	11.26	0.205	0.501	0.0197	0.0031	0.330	0.0563	0.0207	0.819	0.0321	0.005	0.295	.
1	ECRM 379-1D	0.0033	30.83	26.79	0.0121	1.804	0.0166	0.0006	0.393	0.984	0.0390	3.290	0.0550	(0.0028)	0.0663	(0.0091)
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)



#	SYLAB Ref	Ca	Ni	Cr	C	Mn	P	S	Si	Cu	Co	Mo	N	Nb	V	W
2	BS 82E	0.0014	12.49	22.38	0.062	1.61	0.027	0.001	0.58	0.26	0.12	0.31	0.072	0.062	0.064	0.041
1	BS 9942	0.0014	13.55	18.21	0.021	1.84	0.025	0.006	0.49	0.305	0.086	3.30	0.071	0.005	0.072	0.032
1	BS 9842	0.0010	20.02	24.19	0.059	1.50	0.025	0.0016	0.99	0.147	0.237	0.111	0.037	0.026	0.075	0.011
1	ECRM 272-1D	0.00090	0.2445	11.927	0.2815	0.600	0.0156	0.0196	0.420	0.0192	0.0145	0.0030	0.0508	0.0028	0.0167	.
2	BS 94C	0.0008	0.43	25.90	0.057	0.45	0.024	0.002	0.62	0.056	0.042	0.20	0.065	0.032	0.12	(0.03)
2	BS 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

SYLAB Ref	Al	As	B	O	Pb	Sb	Sn	Ti	Zn	Units	
BS Ca304-4	0.017	0.0063	0.0031	0.013	0.0008	(0.0002)	0.0024	0.0046	Zr:0.0036	~38 mm Ø x ~38mm Fe: 70.7	17025
13X 14923A	0.003	.	.	.	.	.	0.004	.	.	~40 mm Ø x ~15 mm	
ECRM 379-1D	(0.00246)	(0.0018)	0.00190	(0.0027)	(0.000038)	0.00057	0.0021	(0.0014)	.	38 or 45 mm Ø x 25 mm	
BS 193	(0.003)	.	0.0007	(0.004)	.	.	0.004	0.003	.	32 mm Ø x ~7 or 19+ mm	
BS SS4952	0.003	0.002	(0.0004)	0.005	.	.	0.004	0.002	.	38 mm Ø x ~7 or 19+ mm	
BS 82E	0.006	.	0.0024	.	.	.	0.006	0.003	.	38 mm Ø x ~7 to 19 mm	
BS 9942	0.004	(0.004)	0.0014	(0.0023)	.	.	0.006	(0.002)	.	44 mm Ø x ~7 or 19+ mm	25(pre-17025)
BS 9842	0.014	(0.002)	0.0025	(0.0044)	.	.	0.005	0.003	.	38 mm Ø x ~7 or 19+ mm	25(pre-17025)
ECRM 272-1D	0.0046	0.0116	0.0018	.	.	0.0007	.	0.00096	0.0031	38 mm Ø x 25 or 30 mm	
BS 94C	0.004	.	(0.0005)	0.0061	.	.	0.006	.	.	44 mm Ø x ~7 or 19+ mm	
BS 87F	0.004	0.005	(0.0006)	0.005	.	.	0.004	0.004	.	41 mm Ø x ~7 or 19+ mm	

COPPER IN STAINLESS AND HIGH ALLOY STEEL

= class, where 1 = CRM and 2 = RM

* Provisional Analysis

#	SYLAB Ref	Cu	Ni	Cr	C	Mn	P	S	Si	Co	Mo	N	Nb	Ti	V	W
1	13X PH 3N	5.83	3.03	16.0	0.110	0.39	0.0136	0.019	1.25	0.306	0.74	0.111	0.45	0.0193	0.246	.
1	13X PH 4P	5.53	4.07	15.5	0.033	0.69	0.021	0.019	0.64	0.50	0.255	0.082	0.355	0.075	0.55	.
1	13X PH 2M	4.03	3.56	16.80	0.0598	1.184	0.0201	0.0419	0.502	0.0927	1.009	0.052	0.143	0.049	0.1028	.
2	BS 9621	3.42	4.61	14.93	0.035	0.31	0.017	0.0011	0.468	0.029	0.063	0.013	0.27	(0.001)	0.096	(0.01)
2	BS 185A	3.41	4.43	14.46	0.033	0.49	0.022	0.002	0.38	0.026	0.30	0.027	0.32	(0.001)	0.048	(0.014)
1	BS 17-4PHB	3.35	4.52	15.60	0.042	0.559	0.022	0.023	0.43	0.040	0.110	0.047	0.315	0.0045	0.061	(0.02)
2	BS 9622	3.34	4.34	14.34	0.032	0.63	0.019	0.004	0.42	0.040	0.27	0.028	0.33	(0.001)	0.074	(0.020)



#	SYLAB Ref	Cu	Ni	Cr	C	Mn	P	S	Si	Co	Mo	N	Nb	Ti	V	W
2	BS 17-4PHA	3.30	4.69	15.40	0.018	0.85	0.023	0.022	0.40	0.072	0.34	0.022	0.204	.	0.043	.
1	BS 17-4PHC	3.23	4.24	15.40	0.033	0.81	0.022	0.027	0.399	0.077	0.45	0.027	0.258	(0.001)	0.090	0.121
2	BS 187A	3.10	33.06	19.75	0.022	0.52	0.017	0.0025	0.26	0.32	2.06	0.0157	0.57	(0.002)	0.10	(0.02)
1	ECRM 273-1D	3.046	4.85	14.747	0.0336	0.785	0.0131	0.0004	0.378	0.0391	0.2462	0.0444	0.221	.	0.0512	.
1	SRM C2400	2.63	4.07	17.06	0.036	0.71	0.013	0.003	0.61	0.10	0.23	.	0.15	.	0.092	.
2	BS SS1962	2.22	8.32	11.42	0.008	0.06	0.006	0.0025	0.06	(0.015)	0.008	0.0025	0.27	1.11	0.071	(<0.02)
1	13X 45500A	2.20	8.36	11.39	0.0041	0.0263	0.0049	0.0020	0.059	0.0152	0.0185	0.0030	0.250	1.187	0.0689	.
1	SS 475	1.94	5.66	14.14	0.050	0.89	0.037	0.008	0.21	0.22	1.59	.	0.22	.	.	.
1	BS 9812	1.65	6.61	14.82	0.031	0.485	0.018	0.004	0.43	0.110	0.76	0.0195	0.645	(0.005)	0.088	0.025
1	BS 9811	1.63	6.55	14.87	0.027	0.380	0.016	0.0010	0.36	0.055	0.744	0.0196	0.62	(0.003)	0.086	0.013
1	13X PH2S143A	1.61	5.20	13.45	0.044	0.544	0.0205	0.0022	0.478	0.0475	1.325	0.024	0.222	.	0.087	0.019
1	BS 179B	1.56	6.17	25.9	0.0161	0.890	0.0243	0.0002	0.371	0.0394	3.34	0.239	0.008	(0.0008)	0.079	0.053
1	13X NSA 7B	1.53	6.37	25.69	0.013	0.864	0.0160	0.0005	0.278	0.047	3.28	0.232	(0.009)	.	0.080	0.133
1	BS 179C	1.53	6.10	25.9	0.0164	0.878	0.0236	0.0003	0.373	0.0386	3.34	0.236	0.009	(0.0005)	0.080	0.056
1	BS 450	1.51	6.24	14.4	0.029	0.596	0.016	0.0013	0.323	0.028	0.671	0.022	0.59	<0.008	0.051	0.016
1	ECRM 295-1D	1.481	24.40	19.51	0.0166	1.758	0.0167	0.0004	0.418	0.0450	3.996	0.0615	.	.	0.0453	.
1	13X NSA 7A	1.42	5.67	25.91	0.0209	0.951	0.022	0.0009	0.359	.	3.25	0.247	0.015	.	.	.
2	HRT FE2004-H	1.33	24.25	19.08	0.021	1.83	0.021	0.004	0.47	0.046	4.17	.	0.046	0.005	0.042	.
1	13X PH 7F	0.77	5.41	13.16	0.118	1.487	0.028	0.0057	1.402	0.049	2.52	0.044	0.241	0.0196	0.043	.

SYLAB Ref	Al	Ag	As	B	Ca	Cd	Fe	Mg	O	Pb	Sb	Sn	Ta	Units
13X PH 3N	0.050	.	.	0.0042	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X PH 4P	0.029	.	.	0.0031	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X PH 2M	0.0419	.	.	0.0047	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
BS 9621	0.003	.	.	0.0004	(0.0001)	.	.	.	.	.	.	0.003	(0.002)	38 mm Ø x ~7 or 19+ mm
BS 185A	0.002	.	.	0.0017	(0.0002)	.	.	.	(0.0021)	.	.	0.007	(0.002)	38 mm Ø x ~7 or 19+ mm
BS 17-4PHB	0.034	.	(0.003)	0.0036	(0.0004)	17025	[74.8]	(0.0002)	(0.002)	(0.001)	(0.002)	0.012	(0.002)	41 mm Ø x ~7 or 19+ mm
BS 9622	0.002	.	.	0.0004	.	.	.	.	.	.	.	0.006	.	38 mm Ø x ~7 or 19+ mm
BS 17-4PHA	.	.	.	0.0016	.	.	.	.	.	.	.	.	(0.002)	38 mm Ø x ~7 or 19+ mm



SYLAB Ref	Al	Ag	As	B	Ca	Cd	Fe	Mg	O	Pb	Sb	Sn	Ta	Units
BS 17-4PHC	0.0023	.	0.0043	0.0026	0.0007	17025	74.8	.	0.010	(0.0001)	.	0.0100	.	44 mm Ø x ~7 or 19+ mm
BS 187A	(0.009)	.	.	0.0022	.	.	.	.	0.0029	last of	stock	0.003	<0.002	41 mm Ø x ~7 mm
ECRM 273-1D	.	.	0.0030	.	.	.	.	.	.	.	.	0.0021	.	40 mm Ø x 20 mm
SRM C2400	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
BS SS1962	0.067	.	0.002	0.0018	.	.	.	.	(0.001)	.	.	0.004	.	38 mm Ø x ~7 or 19+ mm
13X 45500A	0.073	.	.	.	.	.	.	.	.	.	.	0.0048	(0.0050)	~38 mm Ø x ~15 mm
SS 475	0.013	.	.	.	.	.	.	.	.	.	.	0.015	.	38 mm Ø x 19 mm
BS 9812	(0.002)	.	(0.005)	(0.0003)	0.0012	.	.	.	(0.007)	25(pre-17025)		0.004	.	50 mm Ø x ~7 or 19+ mm
BS 9811	(0.003)	.	(0.003)	(0.0003)	0.0014	.	.	.	(0.0060)	25(pre-17025)		0.004	.	38 mm Ø x ~7 or 19+ mm
13X PH2S143A	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
BS 179B	0.0070	.	0.0036	0.0015	(0.0004)	17025	[61.5]	(0.0004)	0.0037	(0.00002)0.0005		0.0019	(0.0006)	38 mm Ø x 19+ mm
13X NSA 7B	0.0142	.	.	0.0018	.	.	.	.	.	0.0009	0.0020	.	.	~41 mm Ø x ~15 mm
BS 179C	0.0078	.	0.0034	0.0015	(0.0003)	17025	[61.6]	(0.0004)	0.0038	(0.00002)0.0005		0.0018	(0.0006)	38 mm Ø x ~7 or 19+ mm
BS 450	(0.003)	.	0.0033	(0.0003)	<0.005	17025	75.5	.	0.0027	<0.005	0.0010	0.0046	.	44 mm Ø x ~7 or 19+ mm
CT 450	.	0.0013	.	.	.	.	.	.	.	0.001	.	0.008	.	30-35 mm Ø x ~15-19 mm
ECRM 295-1D	0.0203	.	0.0041	0.0018	.	.	48.36	(0.0003)	.	.	0.0007	0.0025	.	38 mm Ø x 25 or 30 mm
13X NSA 7A	(0.009)	.	.	.	.	.	.	.	.	.	.	.	.	42 mm Ø x 15 mm last
HRT FE2004-H	0.005	.	.	0.0021	.	.	.	.	.	.	.	.	.	32 mm Ø x 20 mm
13X PH 7F	0.012	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm

MARAGING STEEL AND COBALT IN STAINLESS AND HIGH ALLOY STEEL

= class, where 1 = CRM, 2 = RM

#	SYLAB Ref	Co	Mo	Ni	Cr	C	Mn	P	S	Si	Cu	Al	B	N	Nb	Ti
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
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
1	BS 85D	0.97	0.59	9.98	17.09	0.048	1.69	0.024	0.024	0.54	0.45	0.13	(0.001)	(0.02)	0.062	0.48

SYLAB Ref	As	Ca	Fe	Mg	O	Sb	Sn	Ta	V	W	Zr	Units	
BS 161A	(0.002)	(0.0008)	25(pre-17025)		(0.0004)	.	(0.0015)	(0.03)	0.031	(0.008)	(0.002)	38 mm Ø x ~12 or 19 mm	last



SYLAB Ref	As	Ca	Fe	Mg	O	Sb	Sn	Ta	V	W	Zr	Units			
ECRM 285-2D	.	.	.	.	.	.	.	.	.	.	0.0050	38 mm Ø x 25 or 30 mm			
BS 85D	(0.01)	0.0004	[67.8]	.	(0.002)	(0.001)	0.0062	(0.001)	0.132	(0.07)	(0.004)	38 mm Ø x ~7 or 19+ mm			

TUNGSTEN IN STAINLESS AND HIGH ALLOY STEEL

= class, where 1 = CRM and 2 = RM

#	SYLAB Ref	W	Ni	Cr	C	Mn	P	S	Si	Cu	Co	Mo	N	Nb	Ti	V
1	13X 14219K	4.17	12.66	21.46	0.0997	0.482	0.0401	0.0456	1.504	0.138	0.0475	0.169	.	0.140	.	0.0188
1	13X 14212S	3.68	8.81	21.64	0.119	0.166	0.032	0.0386	2.47	0.611	0.1090	0.520	0.0055	0.550	.	0.1175
1	113X 14215L	3.02	15.86	22.89	0.136	1.110	0.0050	0.0068	0.596	0.0110	0.0057	0.0048	.	0.0196	.	0.0480
2	BS 183A	2.60	1.85	12.14	0.172	0.35	0.016	0.0040	0.37	0.093	0.036	0.12	0.0256	0.006	0.002	0.090

SYLAB Ref	Al	As	B	Ca	O	Sb	Sn	Units							
13X 14219K	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm							
13X 14212S	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm							
13X 14215L	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm							
BS 183A	0.002	(0.002)	(<0.0005)	0.0020	0.0065	(0.001)	0.003	38 mm Ø x ~7 or 19+ mm							

MANGANESE STAINLESS STEEL

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

# SYLAB Ref	Mn	Ni	Cr	C	P	S	Si	Cu	Mo	Al	Co	N	Nb	V	W
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)
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)
1 13X NSC3AB	11.00	3.19	24.1	0.74	0.019	0.010	1.39	0.287	0.059	0.035	0.019	0.51	2.56	0.158	0.034
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
1 13X NSC6A	8.85	6.52	20.47	0.0266	0.0049	0.0055	0.523	0.0064	(0.002)	(0.009)	.	0.235	.	0.0052	.
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 BS 181B	8.07	8.18	16.17	0.070	0.021	0.0009	3.94	0.206	0.173	0.0119	0.044	0.158	0.026	0.044	0.016
1 13X NSC2Q	8.02	3.63	20.95	0.574	.	0.014	1.02	1.01	0.339	0.37	.	0.299	2.03	0.293	0.063
1 13X 21800A	8.00	8.32	16.81	0.0765	0.032	0.0011	4.03	0.431	0.325	0.012	0.0943	0.125	0.007	0.0619	.



# SYLAB Ref	Mn	Ni	Cr	C	P	S	Si	Cu	Mo	Al	Co	N	Nb	V	W
1 13X NSC4G	7.78	7.52	31.7	0.470	.	0.0065	1.53	0.208	1.31	0.26	0.238	0.90	2.37	0.224	0.208
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	.
1 13X NSC1Q	6.79	5.10	19.46	0.269	0.0103	(0.007)	0.93	0.438	0.240	0.034	0.015	0.087	1.48	0.540	0.104
2 BS 191	5.71	5.34	16.33	0.098	0.024	0.023	3.73	0.33	0.36	(0.002)	0.11	0.117	0.024	0.083	0.033
1 13X NSA4B	5.55	17.62	23.85	0.115	0.0302	0.0095	0.519	0.595	4.32	0.0048	.	0.446	0.154	.	.
1 13X NSA10A	5.23	12.98	20.67	0.0180	0.0206	0.0007	0.375	0.170	2.636	.	0.060	0.342	0.143	0.151	(0.061)
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 BS 180B	4.65	11.9	21.5	0.022	0.017	0.0008	0.46	0.201	2.20	(0.007)	0.111	0.315	0.131	0.149	0.050
2 HRT FE2017-H	4.43	15.45	20.15	0.015	0.022	0.002	0.34	0.21	3.17	.	.	0.311	0.131	.	.
1 13X NSC7B	3.55	7.50	23.9	0.397	0.019	0.0098	0.88	0.220	0.435	0.204	0.297	0.429	0.82	0.167	0.041
1 13X NSC5C	2.06	4.42	21.6	0.524	.	0.024	1.18	0.84	0.472	0.24	0.093	0.265	2.31	0.102	0.050

SYLAB Ref	As	B	Ca	O	Pb	Sb	Sn	Ta	Te	Ti	Zr	Units
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 20 mm
BS 193	.	0.0007	0.0020	(0.004)	.	.	0.004	.	.	0.003	.	32 mm Ø x ~7 or 19+ mm
13X NSC3AB	.	.	.	.	.	.	(0.0035)	.	.	(0.009)	.	~40 mm Ø x ~15 mm
BS 190	.	0.0005	.	0.0045	.	.	0.003	.	.	0.002	.	38 mm Ø x ~7 or 19+ mm
13X NSC6A	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 13 mm HIP
BS 181A	.	0.0009	.	0.0010	.	.	0.005	.	.	0.007	last	38 mm Ø x ~7 mm
BS 181B	(0.002)	(0.0008)	(0.001)	0.0010	(0.0005)	(0.0007)	(0.004)	Fe:62.9	17025	0.0051	(0.0004)	38 mm Ø x ~7 or 19+ mm
13X NSC2Q	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X 21800A	(0.001)	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
13X NSC4G	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
SRM 1297	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
13X NSC1Q	.	.	.	.	.	.	0.0026	.	.	0.004	.	~40 mm Ø x ~15 mm
BS 191	.	(0.0006)	.	0.002	.	.	(0.006)	0.002	.	0.012	.	38 mm Ø x ~7 or 19+ mm
13X NSA4B	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X NSA10A	0.0031	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
BS 180A	.	(0.0023)	.	0.003	.	.	(0.002)	.	last	(0.002)	.	37 mm Ø x ~7-12 mm last
BS 180B	0.0011	(0.004)	0.0009	0.0043	17025	(0.0007)	0.0040	(0.003)	Fe:58.5	(0.005)	(0.0009)	38 mm Ø x ~7 or 19+ mm



SYLAB Ref	As	B	Ca	O	Pb	Sb	Sn	Ta	Te	Ti	Zr	Units
HRT FE2017-H	.	.	.	.	.	.	.	.	.	.	.	30 mm x 30 mm x 10 mm
13X NSC7B	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X NSC5C	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm

CRM NICKEL BINARIES		analysis listed in mass % ~40 mm Ø x ~15 mm														
SYLAB Ref	Ni	C	Mn	P	S	Si	Cu	Cr	Al	Co	N	Mg	Mo	Nb	Ti	W
14X FeNi50C	51.5	0.0245	0.057	0.0168	0.16	0.151	0.089	0.066	0.319	0.416	.	.	.	.	.	.
14X FeNi45C	45.88	0.0082	0.0222	0.026	0.0015	0.77	0.089	0.076	0.98	0.572	.	.	.	.	.	.
14X FeNi40C	40.1	0.012	0.031	0.0148	1.03	0.050	0.081	0.64	2.00	1.057	.	.	.	.	.	.
14X 94100A	41.00	0.0055	0.443	0.0051	0.0027	0.103	0.0628	0.0265	.	0.0208	0.0016	0.0021	0.0053	(0.01)	0.0011	0.0017
14X FeNi10A	10.12	0.095	0.272	0.015	0.027	0.061	0.029	0.070	0.025	.	0.0055	.	.	.	.	.
14X FeNi8A	8.10	0.097	0.330	0.015	0.029	0.097	0.030	0.250	0.029	.	0.0061	.	.	.	.	.
14X FeNi6A	6.08	0.100	0.330	0.0155	0.028	0.075	0.028	0.073	0.025	.	0.0055	.	.	.	.	.

SULFUR AND PHOSPHORUS IN STAINLESS AND HIGH ALLOY STEEL																
# = class, where 1 = CRM, 2 = RM, and 3 = RM with no uncertainties																
# SYLAB Ref	S	P	Ni	Cr	C	Mn	Si	Cu	Al	Co	Mo	N	Nb	Ti	V	
2 BS 150	0.33	0.020	0.19	18.61	0.048	1.71	0.43	0.042	0.002	0.024	1.97	0.029	0.003	.	0.054	
1 SRM 1223	0.329	0.018	0.232	12.64	0.127	1.08	0.327	0.081	.	.	0.053	.	.	.	0.068	
2 BS 90F	0.328	0.023	0.30	13.01	0.085	0.53	0.58	0.12	(0.006)	0.021	0.14	0.037	0.011	.	0.076	
1 BS 303	0.326	0.028	8.17	17.23	0.044	1.80	0.415	0.627	0.0019	0.071	0.410	0.023	0.008	0.017	0.056	
1 13X 30300A	0.312	0.0205	8.60	17.62	0.041	1.83	0.422	0.025	.	0.0255	0.334	0.034	.	.	0.091	
2 BS 154	0.302	0.027	0.25	17.58	0.030	0.40	1.26	0.063	(0.002)	0.019	0.31	0.039	0.005	.	0.046	
2 13X 12549K	0.29	0.092	1.26	11.70	0.16	0.34	0.43	0.10	.	0.52	1.49	.	0.23	.	.	
2 BS 153	0.280	0.018	0.140	17.38	0.026	0.41	0.53	0.052	0.002	0.017	0.30	0.021	0.002	(0.004)	0.045	
2 BS 152	0.275	0.022	0.14	13.41	0.320	0.36	0.44	0.050	(0.002)	0.015	0.061	0.020	0.006	.	0.051	
1 13X 43020A	0.189	0.0246	0.517	16.07	0.147	1.439	0.415	0.0687	0.0047	0.0191	0.226	0.0212	0.0102	.	0.0542	
1 NCS HS41751A	0.16	0.035	8.07	17.41	0.075	1.70	0.71	0.26	.	0.13	0.33	0.077	.	.	0.068	



#	SYLAB Ref	S	P	Ni	Cr	C	Mn	Si	Cu	Al	Co	Mo	N	Nb	Ti	V
2	BS 155	0.145	0.014	0.13	16.64	1.00	0.35	0.40	0.035	(0.001)	0.019	0.46	0.032	0.002	.	0.10
1	13X 12536T	0.090	0.0449	12.12	16.09	0.146	0.374	0.546	0.0793	0.108	0.280	2.48	0.0084	0.060	0.444	0.0513
1	13X 12535BE	0.0591	0.0400	14.79	16.95	0.229	0.342	1.407	0.130	0.194	0.146	4.09	0.029	.	0.625	0.252
1	SRM C1154a	0.051	0.06	13.08	19.31	0.100	1.44	0.53	0.44	.	0.38	0.068	.	.	.	0.135
2	13X 19004B	0.014	0.069	17.9	22.8	0.066	1.96	0.36	0.022	.	.	3.62	.	0.18	.	.
1	13X 19004C	0.0135	0.074	17.90	22.77	0.075	2.01	0.35	0.0112	0.030	0.0501	3.43	.	0.152	.	0.041

SYLAB Ref	Ag	As	B	O	Pb	Sn	Ta	W	Units
BS 150	.	.	.	0.012	.	(0.003)	.	0.01	35 mm Ø x ~7 or 19+ mm
SRM 1223	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
BS 90F	.	.	.	0.011	.	0.005	.	0.032	38 mm Ø x ~7 to 19 mm last
BS 303	.	.	0.0013	0.0058	.	0.0091	.	0.023	44 mm Ø x ~7 or 19+ mm 17025
13X 30300A	.	.	0.0035	.	.	.	.	.	~40 mm Ø x ~15 mm
BS 154	.	.	.	0.008	.	(0.005)	.	(0.01)	38 mm Ø x ~7 or 19+ mm
13X 12549K	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
BS 153	.	(0.004)	.	.	(0.001)	0.002	.	(0.002)	35 mm Ø x ~7 or 19+ mm
BS 152	.	.	.	.	.	0.003	.	<0.01	41 mm Ø x ~7 or 19+ mm
13X 43020A	.	.	(0.0032)	.	.	.	.	0.0108	~40 mm Ø x ~15 mm
NCS HS41751A	.	.	.	.	.	.	.	.	38 mm Ø x 38 mm
BS 155	.	.	.	0.0048	.	(0.003)	.	.	36 mm Ø x ~7 or 19+ mm
13X 12536T	.	.	0.0214	.	.	0.0068	0.104	.	~40 mm Ø x ~15 mm
13X 12535BE	.	.	0.0051	.	.	0.0194	(0.020)	.	~40 mm Ø x ~15 mm
SRM C1154a	.	.	.	.	0.017	.	.	.	32 mm Ø x 19 mm
13X 19004B	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X 19004C	.	.	(0.001)	.	.	(0.001)	0.011	.	~40 mm Ø x ~15 mm

SELENIUM IN STAINLESS AND HIGH ALLOY STEEL

= class, where 1 = CRM and 2 = RM



#	SYLAB Ref	Se	Ni	Cr	C	Mn	P	S	Si	Cu	Al	Co	Mo	N	Nb	Ti
2	BS 151	0.328	0.24	13.19	0.090	0.41	0.021	0.018	0.65	0.11	(0.002)	0.018	0.088	0.022	0.005	(<0.003)
2	BS 186A	0.229	35.86	0.16	0.040	0.72	0.008	0.0053	0.19	0.016	(0.001)	0.028	0.0032	0.0026	(<0.002)	(<0.003)
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

SYLAB Ref	B	Fe	O	Sn	Ta	V	W	Zr	Units
BS 151	.	.	0.009	0.005	.	0.046	0.010	.	50 mm Ø x ~7 or 19+ mm
BS 186A	.	.	.	(0.002)	.	0.0012	(0.01)	.	38 mm Ø x ~7, ~12 or 19 mm
BS 156	.	.	0.0045	(0.004)	.	0.13	0.11	.	41 mm Ø x ~7 or 19+ mm

STAINLESS STEEL WITH NI < 5.0 % - CONTINUED ON THE NEXT PAGE

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

** Provisional Analysis

#	SYLAB Ref	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	BS 93F	1.047	0.59	0.0266	(<0.0025)	0.49	0.132	0.187	16.72	0.021	0.46	0.051	0.0029	0.0012	0.057	0.0016
1	13X 44004B	1.012	0.378	0.0232	0.0018	0.440	0.0687	0.197	16.50	0.0167	0.468	0.0308	0.008	(0.004)	0.0484	0.0156
2	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	.
1	NCS HS41752	0.97	0.46	0.023	0.0016	0.48	0.082	0.192	17.61	.	0.057	.	.	.	0.088	.
1	ECRM 291-1D	0.90	0.81	0.017	0.0088	0.91	0.071	0.56	17.15	0.0233	2.10	0.1142	.	.	0.39	.
2	HRT FE2018-H	0.37	0.73	0.026	(0.003)	0.33	0.29	0.56	16.34	.	1.04	0.0134	.	.	0.064	.
1	13X 14122A	0.356	0.480	0.0177	0.0021	0.449	0.066	0.632	15.91	0.0224	0.855	0.0290	0.006	.	0.101	0.004
1	13X 40900A	0.035	0.716	0.0032	0.0059	0.616	0.134	0.231	10.98	0.053	0.102	0.007	0.032	0.530	0.099	.
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)
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	.
1	13X 42027A	0.294	0.356	0.0139	0.0005	0.544	0.035	0.163	15.25	0.0191	0.990	0.402	0.004	(0.002)	0.048	0.019
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	BS 422	0.232	0.640	0.0169	0.0013	0.404	0.080	0.676	11.25	0.0293	0.896	0.050	0.045	0.0011	0.274	0.95
1	SS 472	0.227	1.02	0.032	0.029	1.05	(0.02)	1.95	15.82	(0.02)	0.661	.	.	.	(0.02)	.



#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
1	13X 42200A	0.220	0.651	0.0182	0.0012	0.314	0.136	0.738	11.41	0.0114	1.042	0.0585	0.0203	.	0.246	1.177
1	NCS HS41749	0.21	0.39	0.023	0.012	0.56	1.15	1.52	12.27	.	0.158	.	.	.	0.074	.
1	13X 42000A	0.208	0.679	0.0241	0.0253	0.496	0.202	0.295	12.56	0.0161	0.0398	0.0273	.	.	0.046	.
1	13X 14923A	0.205	0.501	0.0197	0.0031	0.330	0.0563	0.452	11.26	0.0207	0.819	0.0321	0.005	.	0.295	.
1	NCS HS41748	0.194	0.62	0.016	0.011	0.54	0.008	0.077	12.70	.	0.010	.	.	.	0.048	.
2	HRT FE2015-H	0.19	0.52	0.021	0.002	0.37	0.07	0.25	12.87	.	0.07	0.045	.	.	0.055	.
1	13X 12548M	0.188	0.577	0.027	0.219	0.425	0.230	1.075	12.96	0.353	1.318	0.0500	0.586	.	.	0.031
2	HRT FE2010-H	0.18	0.60	0.024	0.004	0.39	0.08	1.94	15.95	0.023	0.13	.	.	.	0.044	0.024
1	SS 70	0.18	0.38	0.024	0.020	0.35	(0.06)	0.40	16.35	.	.	.	.	.	.	.
1	SS 473	0.172	0.494	0.019	0.030	0.604	(0.02)	(0.06)	9.06	(0.01)	0.95	.	.	.	(0.02)	.
1	13X 41800A	0.172	0.328	0.0176	0.0006	0.316	0.104	2.05	12.30	0.0357	0.068	0.028	(0.006)	.	0.020	2.75
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
1	13X 15024X	0.166	0.610	0.0284	0.0294	0.750	0.332	2.99	14.65	0.1059	0.299	0.0156	0.099	.	0.150	0.039
1	13X 43100A	0.166	0.378	0.0199	0.0050	0.535	0.134	2.10	16.39	0.0239	0.0768	0.075	0.006	.	0.0577	0.004
2	13X 12549K	0.16	0.34	0.092	0.29	0.43	0.10	1.26	11.70	0.52	1.49	.	0.23	.	.	.
1	SS 470	0.153	0.235	0.024	0.035	0.335	(0.02)	0.369	17.68	(0.02)	.	.	.	.	(0.02)	.
2	BS 92B	0.150	0.42	0.021	0.003	0.42	0.13	2.12	15.92	0.04	0.17	0.073	(0.006)	.	0.07	0.02
1	SRM 1219	0.149	0.42	0.026	0.001	0.545	0.162	2.16	15.64	.	0.164	0.078	.	.	.	0.056
1	BS 431	0.146	0.579	0.0232	0.0047	0.393	0.282	2.25	15.8	0.050	0.092	0.049	0.034	0.0007	0.062	0.012
1	BS 355	0.136	0.862	0.0171	0.0003	0.374	0.173	4.18	15.43	0.053	2.73	0.081	0.0103	0.0007	0.106	0.0069
1	13X 41001A	0.136	0.464	0.0142	0.0037	0.298	0.056	0.0939	12.06	0.0143	0.0102	0.0316	.	.	0.079	.
1	IARM Fe410-18	0.132	0.50	0.017	0.0014	0.29	0.046	0.280	12.2	0.012	0.146	0.046	0.0021	.	0.065	(0.008)
1	NCS HS28747	0.132	0.453	0.027	0.0068	0.502	0.126	1.79	16.24	0.051	0.153	0.030	.	(0.002)	0.075	.
1	BS 410C	0.131	0.381	0.0206	0.0051	0.366	0.084	0.352	12.78	0.0185	0.055	0.039	0.0056	0.0006	0.042	0.0131
1	BS 0021	0.128	0.420	0.021	0.008	0.354	0.040	0.100	12.00	0.015	0.016	0.029	(0.001)	(0.003)	0.029	0.005
1	SRM 1223	0.127	1.08	0.018	0.329	0.327	0.081	0.232	12.64	.	0.053	.	.	.	0.068	.
1	ECRM 296-1D	0.1166	0.676	0.0178	0.0026	0.242	0.1498	2.790	11.82	0.0218	1.700	0.0214	.	.	0.363	.
1	BS 416	0.116	0.64	0.0237	0.35	0.232	0.154	0.371	13.41	0.0241	0.030	0.043	(0.006)	0.0012	0.100	0.0034



#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
1	13X 15035U	0.115	0.674	0.0415	0.0456	0.636	0.204	2.38	14.00	0.199	0.399	0.0584	0.500	.	0.160	0.048
1	13X 64152A	0.114	0.666	0.0123	0.0020	0.224	0.0622	2.50	11.34	0.0185	1.567	0.0339	.	.	0.275	.
1	13X 41600A	0.111	0.627	0.0253	0.302	0.442	0.160	0.331	13.23	0.0216	0.0499	0.0245	0.0053	.	0.0888	(0.003)
1	SS 471	0.095	0.417	0.018	0.023	0.326	(0.02)	0.96	23.85	(0.02)	.	.	.	.	(0.03)	.
1	NCS HS11721-4	0.093	0.531	0.029	0.026	0.506	0.169	0.632	17.43	0.176	0.089	0.023	.	0.288	0.241	.
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
1	13X 15023W	** 0.09	1.76	0.01	0.005	0.35	0.03	0.96	11.2	0.05	0.98	0.01	1.43	.	0.03	0.039
1	13X 14742A	0.084	0.714	0.0214	0.0008	0.910	0.1267	0.449	17.60	0.0186	0.0968	0.0209	0.0202	0.0051	0.0463	.
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	13X 14762A	0.082	0.662	0.0275	0.0007	1.069	0.0801	0.346	24.38	0.0293	0.0553	0.0285	0.0277	0.0058	0.0993	.
1	BS 430	0.064	0.706	0.0239	0.0022	0.38	0.120	0.223	16.58	0.018	0.052	0.057	(0.007)	(0.002)	0.055	(0.007)
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	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	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
1	13X 14418A	0.0450	0.819	0.0265	0.0108	0.291	0.173	4.65	15.44	0.1004	0.847	0.0423	(0.009)	.	0.0539	0.013
1	NCS HS28748	0.045	0.742	0.028	0.013	0.644	3.23	3.85	15.88	0.119	0.259	0.030	0.230	(0.002)	0.076	.
1	BS 17-4PHB	0.042	0.559	0.022	0.023	0.43	3.35	4.52	15.60	0.040	0.110	0.047	0.315	0.0045	0.061	(0.02)
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	(0.0339)	.	.	0.043	0.058
2	BS 9621	0.035	0.31	0.017	0.0011	0.468	3.42	4.61	14.93	0.029	0.063	0.013	0.27	(0.001)	0.096	(0.01)
1	ECRM 273-1	0.0336	0.785	0.0131	0.0004	0.378	3.046	4.85	14.747	0.0391	0.2462	0.0444	0.221	.	0.0512	.
2	BS 185A	0.033	0.49	0.022	0.002	0.38	3.41	4.43	14.46	0.026	0.30	0.027	0.32	(0.001)	0.048	(0.014)
1	13X 32101A	0.0325	4.91	0.0194	(0.0004)	0.777	0.295	1.476	21.12	0.0347	0.0970	0.241	0.0070	.	0.0830	.
2	BS 9622	0.032	0.63	0.019	0.004	0.42	3.34	4.34	14.34	0.040	0.27	0.028	0.33	(0.001)	0.074	(0.020)
2	BS 154	0.030	0.40	0.027	0.302	1.26	0.063	0.25	17.58	0.019	0.31	0.039	0.005	.	0.046	(0.01)
1	13X 41008A	0.029	0.711	0.010	0.0048	0.641	0.091	0.319	12.36	0.049	0.036	0.0131	0.020	.	0.056	.
1	SRM 1295	0.027	0.387	0.022	0.0003	0.321	0.260	0.194	13.52	0.020	0.023	.	(<0.0005)	(0.01)	0.082	(0.002)
2	BS 153	0.026	0.41	0.018	0.280	0.53	0.052	0.140	17.38	0.017	0.30	0.021	0.002	(0.004)	0.045	(0.002)



#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
1	13X 40930A	0.0227	0.707	0.0104	0.0046	0.689	0.222	0.301	11.09	0.0241	0.0328	0.0075	0.051	0.434	0.0339	.
2	BS 17-4PHA	0.018	0.85	0.023	0.022	0.40	3.30	4.69	15.40	0.072	0.34	0.022	0.204	.	0.043	.
1	13X 14775S	0.006	1.405	0.047	0.154	0.552	0.167	1.949	17.78	0.153	0.529	.	0.691	.	0.0287	.

STAINLESS STEEL WITH NI < 5.0 % - CONTINUED FROM THE PREVIOUS PAGE

analysis listed in mass %		except * which is mg/kg							** Provisional Analysis						
SYLAB Ref	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 ~7 or 19+ mm	
BS 93F	0.0052	0.0056	(0.0001)	19	(6)	(2)	0.0031	0.0016	.	0.0059	.	17025	(0.001)	38 mm Ø x ~7 or 19+ mm	Fe:[80.2]
13X 44004B	0.0160	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm	
BS 155	(0.001)	.	.	.	.	.	0.0048	.	.	(0.003)	.	.	.	36 mm Ø x ~7 or 19+ mm	
NCS HS41752	(0.032)	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 35 mm	
ECRM 291-1D	.	.	.	.	.	.	.	.	.	.	.	.	.	36-41 mm Ø x 28-35 mm	
HRT FE2018-H	0.010	.	(0.0004)	.	.	.	.	.	.	.	.	.	.	36 mm Ø x 20 mm	
13X 14122A	(0.002)	.	.	.	.	.	.	.	.	0.0041	.	.	.	~40 mm Ø x ~15 mm	
13X 40900A	0.0311	.	.	.	.	.	.	.	.	0.0080	.	.	.	~40 mm Ø x ~15 mm	
BS SS4952	0.003	0.002	(0.0004)	19	.	.	0.005	.	.	0.004	.	.	.	38 mm Ø x ~7 or 19+ mm	
BS SS4951	0.002	0.002	.	.	.	.	0.0055	.	.	0.003	.	.	.	42 mm Ø x ~7 to 19+ mm	
BS 152	(0.002)	.	.	.	.	.	.	.	.	0.003	.	.	.	41 mm Ø x 19+ mm	
IRSID 1825	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 30 mm	
13X 42027A	0.004	.	.	.	.	.	.	.	.	0.0026	.	.	.	~40 mm Ø x ~15 mm	
ECRM 272-1D	0.0046	0.0116	0.0018	9.0	(2)	.	.	0.0007	.	.	.	0.0031	.	38 mm Ø x 25 or 30 mm	
SS 469	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm	
BS 422	0.0135	0.0041	(0.0002)	31	(9)	(0.5)	0.0030	(0.0007)	.	0.0043	(0.0001)	17025	(0.001)	38 mm Ø x ~7 or 19+ mm	Fe:84.5
SS 472	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm	
13X 42200A	0.0020	.	.	.	.	.	.	.	.	0.0052	.	.	.	~38 mm Ø x ~15 mm	
NCS HS41749	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 35 mm	
13X 42000A	.	.	0.0013	.	.	.	.	.	.	0.0073	.	.	.	~38 mm Ø x ~15 mm	
13X 14923A	0.003	.	.	44	.	.	.	.	.	0.004	.	.	.	~40 mm Ø x ~15 mm	



SYLAB Ref	Al	As	B	Ca*	Mg*	Pb*	O	Sb	Se	Sn	Ta	Zn	Zr	Units	
NCS HS41748	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 35 mm	
HRT FE2015-H	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 20 mm	
13X 12548M	.	.	.	.	.	.	.	0.022	.	.	.	.	.	40 mm Ø x 15 mm	
HRT FE2010-H	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 20 mm	
SS 70	.	.	.	.	.	.	.	.	.	.	.	.	.	44 mm Ø x 13 mm	
SS 473	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm	
13X 41800A	(0.003)	.	.	.	.	.	.	.	.	0.0040	.	.	.	~38 mm Ø x ~15 mm	
BS 183A	0.002	(0.002)	(<0.0005)	20	.	.	0.0065	(0.001)	.	0.003	.	.	.	38 mm Ø x ~7 or 19+ mm	
13X 15024X	0.0049	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm	
13X 43100A	.	.	.	.	.	.	.	.	.	0.004	.	.	.	~38 mm Ø x ~15 mm	
13X 12549K	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm	
SS 470	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm	
BS 92B	(0.002)	.	.	(9)	.	.	0.0064	.	.	0.006	.	.	.	44 mm Ø x ~7 or 19+ mm	
SRM 1219	.	.	.	.	.	.	.	.	.	.	.	.	.	34 mm Ø x 19 mm	
BS 431	0.0019	0.0038	0.0003	7	(2)	.	0.0059	0.0011	.	0.0134	.	17025	(0.001)	38 mm Ø x ~7 or 19+ mm	Fe: 80.2
BS 355	0.0192	0.0039	(0.0001)	(2)	(2)	(0.3)	0.0020	(0.0009)	.	0.0038	(0.0001)	.	(0.003)	41 mm Ø x ~7 or 19+ mm	17025
13X 41001A	(0.004)	.	.	10	.	.	.	.	.	0.0051	.	.	.	~41 mm Ø x ~15 mm	
NCS HS28747	.	0.0063	.	.	.	1	.	.	.	0.0057	.	.	.	38 mm Ø x 35 mm	
BS 410C	0.0079	0.0029	(0.0001)	22	(3)	(1)	0.0051	(0.0002)	.	0.0023	(0.001)	.	(0.0002)	38 mm Ø x ~7 or 19+ mm	17025
BS 0021	0.008	(0.004)	(<0.0002)	(2)	.	.	(0.004)	.	.	0.003	.	25	(pre-17025)	40 mm Ø x ~7 or 19+ mm	
SRM 1223	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm	
ECRM 296-1D	0.0275	0.0139	(0.0003)	.	.	1.6	.	.	.	0.0131	.	.	.	38 mm Ø x 25 or 30 mm	
BS 416	(0.002)	0.0039	(0.001)	(3)	(3)	(6)	0.0081	(0.002)	.	(0.005)	(0.004)	17025	(0.002)	38 mm Ø x ~7 or 19+ mm	Fe:[84.3]
13X 15035U	(0.093)	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm	
13X 64152A	0.0315	.	.	.	.	.	.	.	.	0.0053	.	.	.	~38 mm Ø x ~15 mm	
13X 41600A	(0.004)	.	.	.	.	.	.	.	.	0.0066	.	.	.	~41 mm Ø x ~15 mm	
SS 471	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm	
NCS HS11721-4	0.124	0.022	.	.	.	(2)	.	.	.	0.034	.	.	.	38 mm Ø x 30 mm	last
BS 151	(0.002)	.	.	.	.	.	0.009	.	0.328	0.005	.	.	.	50 mm Ø x ~7 or 19+ mm	



SYLAB Ref	Al	As	B	Ca*	Mg*	Pb*	O	Sb	Se	Sn	Ta	Zn	Zr	Units
13X 15023W	** 0.003	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X 14742A	0.804	.	.	.	22	.	.	.	.	0.0046	.	0.0055	.	~40 mm Ø x ~15 mm
BS 90F	(0.006)	.	.	.	.	.	0.011	.	.	0.005	.	.	.	38 mm Ø x ~7 to 19 mm last
13X 14762A	1.318	0.0025	.	.	24	.	.	.	.	0.0048	.	.	.	~40 mm Ø x ~15 mm
BS 430	0.0015	0.0037	(0.0004)	(3)	(2)	(6)	0.0075	(0.001)	.	0.0084	(0.001)	17025	(0.001)	44 mm Ø x ~7 or 19+ mm Fe:81.7
BS 94C	0.004	.	.	8	.	.	0.0061	.	.	0.006	.	.	.	44 mm Ø x 19+ mm
BS 0022	0.078	0.003	0.0007	.	(<5)	(6)	(0.002)	(0.0004)	.	0.004	.	25	(pre-17025)	38 mm Ø x ~7 or 19+ mm
BS 150	0.002	.	.	.	.	.	0.012	.	.	(0.003)	.	.	.	35 mm Ø x ~7 or 19+ mm
13X 14418A	(0.003)	.	.	.	.	.	.	.	.	0.005	.	.	.	~40 mm Ø x ~15 mm
NCS HS28748	.	0.0047	.	.	.	1	.	.	.	0.0063	.	.	.	38 mm Ø x 35 mm
BS 17-4PHB	0.034	(0.003)	0.0036	(4)	(2)	(10)	(0.002)	(0.002)	.	0.012	(0.002)	17025	(0.002)	41 mm Ø x ~7 or 19+ mm
SRM C1296	0.035	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
SRM C2400	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
HRT FE2009-H	.	.	.	(10)	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
BS 9621	0.003	.	0.0004	(1)	.	.	.	.	.	0.003	(0.002)	.	.	38 mm Ø X ~7 or 19+ 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 ~7 or 19+ mm
13X 32101A	0.0122	.	0.0014	.	.	.	.	.	.	0.0035	(0.115)	.	.	~38 mm Ø x ~15 mm
BS 9622	0.002	.	0.0004	.	.	.	.	.	.	0.006	.	.	.	38 mm Ø x ~7 or 19+ mm
BS 154	(0.002)	.	.	.	.	.	0.008	.	.	(0.005)	.	.	.	38 mm Ø x ~7 or 19+ mm
13X 41008A	0.076	.	.	.	.	.	.	.	.	0.0077	.	.	0.007	~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	(0.004)	.	.	.	(10)	.	.	.	0.002	.	.	.	35 mm Ø x ~7 or 19+ mm
13X 40930A	0.0362	.	.	.	.	.	.	.	.	0.0069	.	.	.	~40 mm Ø x ~15 mm
BS 17-4PHA	.	.	0.0016	.	.	.	.	.	.	.	(0.002)	.	.	36 mm Ø x ~7 or 19+ mm
13X 14775S	0.0301	(0.002)	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm



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

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

#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
1	SRM C1153a	0.225	0.544	0.030	0.019	1.00	0.226	8.76	16.70	0.127	0.24	.	.	.	0.176	.
1	13X 18001B	0.207	0.463	0.0090	0.0786	0.203	0.149	6.13	15.92	0.0231	0.816	0.0347	0.612	.	0.0996	.
2	13X NSB1D	0.17	0.44	.	.	0.58	.	10.0	19.1	.	0.11	0.04	.	.	.	.
1	13X 18002D	0.159	0.722	0.0245	0.0487	0.352	0.116	7.92	17.77	0.0514	0.209	0.072	1.531	.	0.0542	.
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 NSA2J	0.132	1.03	0.0252	0.0275	0.739	0.259	10.08	17.82	.	2.013	0.131	0.155	.	0.139	.
1	13X NSB3G	0.121	0.632	.	.	0.471	.	9.26	15.22	.	0.630	0.198	.	.	.	.
1	13X 18003C	0.113	1.000	0.0545	0.0245	0.805	0.0433	10.08	19.56	0.100	0.401	0.090	1.042	.	0.0750	.
1	IRSID 1819	0.112	0.903	0.023	0.0112	0.616	0.064	7.10	17.31	0.117	0.110	0.0288	.	.	.	.
1	13X 17002E	0.112	0.801	0.0409	0.0250	0.486	0.1012	7.87	17.45	0.0702	0.204	0.061	0.487	.	0.0587	.
1	NCS HS28743	0.110	0.841	0.024	0.0082	0.780	0.089	18.02	23.71	0.102	0.115	0.057	0.016	(0.003)	0.077	.
1	13X 12855N	0.107	0.918	0.0020	0.0063	0.863	0.340	11.79	16.29	0.155	2.96	0.0078	0.098	0.083	.	0.199
1	13X 14828A	0.104	1.52	0.0268	0.0067	2.19	0.409	11.25	19.3	0.143	0.301	0.037	0.016	.	0.080	0.0167
2	13X 17003A	0.10	0.85	0.037	0.035	0.78	0.08	11.9	11.89	0.07	0.27	.	0.34	.	.	.
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	.	12.53	12.37	.	.	.	.	.	.	.
1	DSZU C015	0.087	0.420	0.0118	0.059	0.214	0.070	12.15	15.36	.	0.89	0.020	.	0.177	0.021	0.023
1	SS 464/1	0.086	0.791	0.020	0.028	0.57	.	20.05	25.39	0.054	.	.	.	.	.	.
1	13X 17004B	0.084	0.497	0.018	0.039	1.23	0.0449	16.04	21.37	0.055	0.455	0.0086	0.179	0.034	.	.
1	SS 467/1	0.082	0.788	0.018	0.019	0.52	.	9.21	18.09	.	.	.	0.99	.	.	.
1	13X 12854M	0.081	1.84	0.038	0.028	0.89	0.205	11.38	15.64	0.344	2.00	0.0097	0.33	0.052	.	0.141
1	13X 17001C	0.0769	1.543	0.055	0.0134	0.215	0.0161	6.31	14.83	0.0979	0.0967	.	0.546	.	.	.
1	NCS HS41750	0.075	1.43	0.031	0.012	0.33	0.276	6.35	16.31	.	0.107	0.058	.	(0.001)	0.064	.
1	ECRM 270-1D	0.0742	0.540	0.0196	0.0007	1.517	0.1076	10.86	20.88	0.0685	0.2099	0.1417	.	(0.0019)	0.0256	(0.0244)
1	BS 192	0.074	0.835	0.025	0.0005	0.387	0.412	7.11	16.44	0.104	0.430	0.0290	0.168	0.076	0.124	0.05
2	BS 83G	0.073	1.66	0.024	0.004	0.56	0.114	19.15	24.50	0.153	0.085	0.026	0.061	(0.003)	0.077	0.007
1	13X 12534X	0.0716	0.589	0.0192	0.0086	0.811	0.0586	8.50	17.71	0.0602	2.04	.	0.201	0.348	0.110	0.010



#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
1	13X 12853L	0.069	1.156	0.0053	0.0062	0.994	0.092	12.31	17.13	0.0415	2.718	0.0086	0.180	0.0455	.	0.089
1	SRM 1171	0.067	1.81	(0.019)	(0.013)	0.536	0.1205	11.18	17.50	(0.097)	0.167	.	.	0.346	.	(0.012)
1	BS 9841	0.067	1.69	0.024	0.024	0.54	0.356	19.55	24.30	0.116	0.57	0.064	0.070	(0.002)	0.070	0.06
1	SS 465/1	0.066	1.380	0.021	0.012	0.405	0.098	9.24	17.31	0.053	0.092	.	.	0.40	0.102	.
1	BS 192A	0.066	0.768	0.021	<0.002	0.300	0.334	7.01	16.44	0.114	0.28	0.029	0.208	0.083	0.077	0.048
2	BS 82E	0.062	1.61	0.027	0.001	0.58	0.26	12.49	22.38	0.12	0.31	0.072	0.062	0.003	0.064	0.041
1	13X 31008A	0.062	1.232	0.030	0.0040	0.510	0.157	19.35	24.45	0.078	0.337	0.063	0.012	.	0.079	0.166
1	BS 321D	0.060	1.76	0.024	0.022	0.27	0.358	9.09	17.42	0.096	0.274	0.0083	(0.009)	0.55	0.054	(0.03)
2	13X NSB2D	0.06	0.62	.	.	0.66	.	11.1	18.2	.	0.21	0.095	.	.	.	.
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 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
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)
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)

STAINLESS STEEL WITH C > 0.05 % - CONTINUED FROM THE PREVIOUS PAGE

SYLAB Ref	Al	As	B	Bi	Ca	Ce	O	Pb	Sb	Sn	Ta	Zr	Units
SRM C1153a	.	.	.	.	.	.	.	0.006	.	.	.	.	32 mm Ø x 19 mm
13X 18001B	0.0157	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X NSB1D	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
13X 18002D	0.0617	.	.	.	.	.	.	.	.	.	.	.	~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 NSA2J	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X NSB3G	.	.	.	.	.	.	.	.	.	.	.	.	42 mm Ø x 15 mm
13X 18003C	0.0292	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm



SYLAB Ref	Al	As	B	Bi	Ca	Ce	O	Pb	Sb	Sn	Ta	Zr	Units
IRSID 1819	.	.	(0.0004)	.	.	.	.	.	.	.	.	.	47 mm x 47 mm x 30 mm
13X 17002E	(0.030)	.	0.0012	.	.	.	.	.	.	.	(0.012)	.	~40 mm Ø x ~15 mm
NCS HS28743	0.0056	0.0042	.	.	.	.	.	0.0004	.	0.0025	.	.	38 mm Ø x 35 mm
13X 12855N	0.048	.	0.0098	.	.	.	.	.	0.093	.	0.122	.	~40 mm Ø x ~15 mm
13X 14828A	0.008	.	.	.	.	.	.	.	.	0.0128	.	.	~40 mm Ø x ~15 mm
13X 17003A	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
BS 253	0.016	0.005	.	.	.	0.044	.	.	.	0.006	25(pre-17025)	.	38 mm Ø X ~7 or 19+ mm
IARM 234C	0.035	(0.001)	0.0023	.	(0.0017)	.	(0.005)	(0.001)	.	0.0017	(0.003)	(0.006)	31 mm Ø x 2 or 18 mm
SS 462	.	0.007	.	.	.	.	.	0.0005	.	.	.	.	38 mm Ø x 19 mm
SS 464/1	.	(0.003)	.	.	.	.	.	0.0004	.	.	.	.	38 mm Ø x 19 mm
13X 17004B	0.043	.	0.0066	.	.	.	.	.	.	.	0.057	.	~40 mm Ø x ~15 mm
SS 467/1	.	0.004	.	.	.	.	.	0.004	.	.	0.0017	.	38 mm Ø x 19 mm
13X 12854M	.	.	0.0101	0.0052	.	.	.	.	0.068	.	0.020	0.0146	~40 mm Ø x ~15 mm
SYLAB Ref	Al	As	B	Bi	Ca	Ce	O	Pb	Sb	Sn	Ta	Zr	Units
13X 17001C	0.0312	.	0.0085	.	.	.	.	.	.	.	0.0124	.	~40 mm Ø x ~15 mm
NCS HS41750	0.009	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 35 mm
ECRM 270-1D	(0.0023)	(0.0034)	Ce:	0.0487	La: 0.0154	.	.	.	(0.0007)(0.0035)	.	.	(0.002)	38 mm Ø x 25 mm
BS 192	1.17	(0.005)	(0.0003)	.	0.0007	.	0.0014	25(pre-17025)	.	0.008	(0.001)	.	38 mm Ø x ~7 or 19+ mm
BS 83G	(0.004)	.	(0.001)	.	.	.	0.0064	.	.	0.003	.	.	38 mm Ø x ~7 or 19+ mm
13X 12534X	0.0485	.	.	.	.	.	.	.	.	.	0.031	.	~40 mm Ø x ~15 mm
13X 12853L	0.18	.	0.0018	.	.	.	.	.	.	.	0.034	.	~40 mm Ø x ~15 mm
SRM 1171	.	.	.	.	.	.	.	.	.	.	.	.	31 mm Ø x 19 mm
BS 9841	(<0.006)	(0.003)	0.0026	25(pre-17025)	.	.	(0.011)	(0.001)	(0.006)	0.006	.	(0.002)	44 mm Ø x ~7 or 19+ mm
SS 465/1	0.026	.	0.0006	.	.	.	.	(<0.001)	.	.	.	.	38 mm Ø x 19 mm
BS 192A	0.98	(0.0035)	(0.0003)	.	(0.0006)	.	(0.0006)	.	.	0.008	25(pre-17025)	.	38 mm Ø x ~7 or 19+ mm
BS 82E	0.006	.	0.0024	.	0.0014	.	.	.	.	0.006	.	.	38 mm Ø x ~7 to 19 mm
13X 31008A	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
BS 321D	0.103	0.0040	0.0012	.	(0.0003)	.	0.0009	(0.0003)	(0.001)	0.0091	17025	(0.001)	44 mm Ø x ~7 or 19+ mm Fe,Mg
13X NSB2D	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm



SYLAB Ref	Al	As	B	Bi	Ca	Ce	O	Pb	Sb	Sn	Ta	Zr	Units
BS 9842	0.014	(0.002)	0.0025	.	0.0010	.	(0.0044)	.	.	0.005	25(pre-17025)		38 mm Ø x ~7 or 19+ mm
BS 82D	(0.002)	.	0.0040	.	0.0007	.	0.007	.	.	0.004	.	last	38 mm Ø x ~7 mm
SRM 1172	.	.	.	.	.	.	.	.	.	.	<0.001	.	32 mm Ø x 19 mm
BS 87F	0.004	0.005	(0.0006)	.	0.0007	.	0.005	.	.	0.004	.	.	41 mm Ø x ~7 or 19+ mm
BS 86F	(0.007)	(0.003)	0.0026	.	(0.001)	.	.	(0.001)	.	0.004	.	.	44 mm Ø x ~7 or 19+ mm
BS 347B	0.002	(0.003)	0.0036	.	(0.0005)	.	0.005	.	.	0.006	(<0.004)	.	38 mm Ø x ~7 or 19+ mm
BS 347A	(0.002)	(0.003)	(0.0004)	.	(0.0002)	.	0.0047	.	.	0.007	(<0.004)	.	38 mm Ø x 19+ mm
SYLAB Ref	Al	As	B	Bi	Ca	Ce	O	Pb	Sb	Sn	Ta	Zr	Units

STAINLESS STEEL WITH C < 0.05 % - CONTINUED ON THE NEXT PAGE

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

analysis listed in mass %

#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
1	ECRM 269-1D	0.0499	1.262	0.0313	0.0010	0.441	0.366	8.044	18.150	0.1116	0.397	0.0460	0.0242	0.0006	0.0991	0.0306
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	13X 14211R	0.047	0.787	0.0093	0.008	1.73	0.336	12.64	24.48	0.034	0.395	.	0.150	0.206	0.039	2.99
1	13X 32100A	0.0463	1.52	0.0298	0.0011	0.498	0.415	9.32	17.39	0.105	0.282	0.0115	0.0191	0.376	0.106	0.021
1	BS 188B	0.046	0.247	0.016	(0.0007)	0.266	0.120	24.81	14.32	0.274	1.30	0.0021	0.099	2.20	0.264	0.043
1	BS 303	0.044	1.80	0.028	0.326	0.415	0.627	8.17	17.23	0.071	0.410	0.023	0.008	0.017	0.056	0.023
1	13X 18004C	0.0430	1.57	0.0060	0.0063	1.21	0.048	12.26	21.62	0.168	0.562	0.0225	0.748	0.095	0.152	0.004
1	13X 14216P	0.0424	0.663	0.0048	0.0070	1.566	0.231	12.06	23.44	0.248	0.209	0.0152	0.248	.	0.0722	2.25
1	NILAB 500HA D	0.041	1.541	0.024	0.012	0.720	0.182	11.00	16.93	0.139	2.73	0.1154	0.023	.	0.074	.
1	13X 12538J	0.04	0.78	.	.	0.64	.	6.07	23.72	.	1.53	.	.	.	.	.
1	NCS HS28741	0.039	1.07	0.037	0.016	0.425	0.399	8.19	18.31	0.208	0.027	0.069	.	(0.002)	0.106	.
1	13X 14207L	0.0388	0.597	0.0061	0.0060	1.448	0.186	12.43	19.63	0.0089	0.573	0.0099	0.258	0.0119	0.0043	2.99
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	.	.	.
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	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	.



#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
1	13X 31400A	0.033	1.60	0.026	0.0006	2.23	0.210	18.76	24.38	0.129	0.240	0.0288	0.018	.	0.092	0.015
1	BS 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
1	13X NSA9B	0.030	1.52	0.0237	0.0009	0.290	0.154	5.75	22.39	0.033	3.27	0.184	0.021	.	0.060	0.033
1	13X 30403B	0.0277	1.820	0.0321	0.0266	0.288	0.497	8.13	18.30	0.178	0.313	0.083	0.0201	0.0013	0.0700	0.035
2	HRT FE2014-H	0.027	1.91	0.023	(0.002)	0.39	0.25	9.92	17.16	.	0.41	(0.018)	.	0.31	.	.
1	BS 9811	0.027	0.380	0.016	0.0010	0.36	1.63	6.55	14.87	0.055	0.744	0.0196	0.62	(0.003)	0.086	0.013
1	SRM 1155a	0.0260	1.593	0.0271	(0.0020)	0.521	0.2431	12.471	17.803	0.225	2.188	(0.0428)	0.0082	0.0039	0.0725	0.0809
1	13X 32900A	0.0251	1.478	0.0276	0.0269	0.556	0.354	5.57	24.91	0.0724	1.310	0.097	.	0.0139	0.0938	0.017
1	BS 317L	0.025	1.17	0.029	0.0017	0.67	0.23	13.51	18.2	0.14	3.07	0.055	0.031	0.0034	0.091	0.017
1	NCS HS28764	0.024	0.985	0.032	0.024	0.454	0.203	11.68	18.78	0.105	3.23	.	0.145	.	0.059	0.046
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	NCS HS28746	0.021	1.87	0.031	0.0009	0.510	0.340	8.24	17.19	0.191	0.069	0.011	.	0.184	0.096	.
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	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	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	BS 2205A	0.021	1.48	0.029	0.0006	0.53	0.300	5.26	22.73	0.071	3.17	0.157	0.010	(0.002)	0.083	(0.02)
1	NCS HS28742	0.021	0.940	0.034	0.0028	0.414	0.043	8.11	18.2	0.216	0.025	0.059	.	0.006	0.089	.
1	13X NSA8B	0.0206	0.596	0.0248	0.0007	0.285	0.589	7.48	25.49	0.0448	3.49	0.232	0.026	.	0.0583	0.599
1	13X NSA13A	0.020	0.761	0.0249	0.0005	0.257	0.156	6.73	25.27	0.032	3.73	0.269	0.028	.	0.0712	0.035
1	SS 463/1	0.019	1.400	0.025	0.019	0.270	0.276	10.20	18.46	0.116	0.265	0.063	.	.	.	.
1	13X NSA12A	0.0192	1.272	0.0267	0.0007	0.492	1.485	24.84	19.63	0.090	4.20	0.0662	0.0088	.	0.0660	0.047
1	13X FV520BA	0.0181	0.655	0.0221	0.0016	0.342	1.462	5.29	13.73	0.030	1.334	0.0197	0.301	.	0.080	0.020
2	HRT FE2000-H	0.018	2.02	0.022	(0.003)	0.36	0.15	5.98	22.15	0.048	3.27	0.20	0.010	0.005	0.042	0.063
1	NCS HS28745	0.018	1.17	0.042	0.0057	0.317	0.334	10.34	16.61	0.185	2.05	0.070	.	(0.002)	0.070	.
1	SS 476	0.0171	1.755	0.0302	0.0234	0.323	0.302	10.17	16.88	0.162	2.04	0.0794	0.0107	.	0.066	0.041
1	BS 304B	0.017	1.72	0.022	0.023	0.540	0.257	8.68	18.3	0.220	0.42	0.081	0.074	(0.0018)	0.097	(0.01)
1	BS 179C	0.0164	0.878	0.0236	0.0003	0.373	1.53	6.10	25.9	0.0386	3.34	0.236	0.009	(0.0005)	0.080	0.056
1	BS 179B	0.0161	0.890	0.0243	0.0002	0.371	1.56	6.17	25.9	0.0394	3.34	0.239	0.008	(0.0008)	0.079	0.053
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	.	.	.	.



#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
1	13X 34700A	0.016	1.290	0.028	(0.0006)	0.483	0.163	9.38	17.19	0.131	0.393	0.0166	0.330	.	0.123	0.146
1	13X NSA11A	0.0159	0.640	0.0186	<0.001	0.275	0.187	23.89	20.18	0.0981	6.16	0.203	0.150	.	0.0513	0.038
1	BS 316F	0.015	1.46	0.029	0.026	0.55	0.437	10.09	16.79	0.126	2.10	0.061	0.011	0.011	0.062	0.045
1	SS 466/2	0.0141	1.311	0.0105	0.0069	0.480	0.0278	10.20	17.84	0.0184	2.776	0.0508	.	.	0.0346	.
2	HRT FE2016-H	0.011	1.83	0.023	0.007	0.35	0.21	11.33	16.85	.	2.03	0.073	.	.	0.061	.
1	SS 461/1	0.0103	0.686	0.0053	0.0051	0.374	0.0091	6.124	14.727	(0.004)	0.0138	.	.	.	.	.
1	13X 30600A	0.0090	0.648	0.0091	0.0007	4.23	0.0121	14.96	17.43	0.0149	0.0040	0.027	(0.004)	.	0.0206	.
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)
1	JK 27B	0.0089	1.510	0.0298	0.0207	0.401	0.265	12.56	17.36	0.142	2.510	0.0630	.	.	0.057	0.031
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)
1	13X 46500A	(0.003)	0.004	0.0020	0.0010	0.075	0.0373	10.91	11.70	0.0101	0.948	0.0031	0.005	1.51	0.0049	.
1	ECRM 284-3D	0.0025	0.0615	0.0049	0.0066	0.0442	0.0105	12.09	17.37	0.0366	2.236	0.0418	.	0.0050	.	0.0039

STAINLESS STEEL WITH C < 0.05 % - CONTINUED FROM THE PREVIOUS PAGE

analysis listed in mass %

SYLAB Ref	Al	As	B	Ca	O	Pb	Sb	Sn	Ta	Units
ECRM 269-1D	.	0.0061	.	.	.	.	.	0.0099	.	35 mm Ø x 25 mm
ECRM 289-1D	0.199	.	0.0044	.	.	.	.	0.111	.	38 mm Ø x 30 mm
13X 14211R	0.089	.	.	.	.	.	.	.	0.0152	~40 mm Ø x ~15 mm
13X 32100A	0.0247	.	0.0025	.	.	.	.	0.0115	.	~38 mm Ø x ~15 mm
BS 188B	0.168	0.0045	0.0047	(0.00003)	0.0006	(0.0001)	(0.0006)	0.0051	.	38 mm Ø x ~7 or 19+ mm Fe: 55.8 17025
BS 303	0.0019	.	0.0013	(0.0015)	0.0058	.	(0.002)	0.0091	.	44 mm Ø x ~7 or 19+ mm 17025 Fe:[70.7]
13X 18004C	0.011	.	.	.	.	.	.	(0.0025)	.	~40 mm Ø x ~15 mm
13X 14216P	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
NILAB 500HA D	.	.	.	.	.	.	.	.	.	38 mm Ø x 20 mm
13X 12538J	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
NCS HS28741	.	0.0035	.	.	.	0.0001	.	0.0051	.	38 mm Ø x 35 mm
13X 14207L	0.0226	.	.	.	.	.	.	.	0.082	~40 mm Ø x ~15 mm
IRSID 1821	.	.	.	.	.	.	.	.	.	47 mm x 47 mm x 30 mm



SYLAB Ref	Al	As	B	Ca	O	Pb	Sb	Sn	Ta	Units	
IMZ 153A	0.036	.	.	.	.	.	.	.	.	38 mm Ø x 20 mm	
ECRM 292-1D	(0.002)	(0.008)	.	(0.0006)	.	.	.	.	(0.001)	38 mm Ø x 25 or 30 mm	
BS 184A	1.00	.	(0.0004)	(0.0003)	(0.0003)	.	.	(0.002)	(0.002)	38 mm Ø x ~7 or 19+ mm	
SS 462/1	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm	
SRM C1151a	.	.	.	.	.	0.0039	.	.	.	32 mm Ø x 19 mm	
13X 31400A	0.022	.	.	0.0024	.	.	.	.	.	~40 mm Ø x ~15 mm	
BS 9812	(0.002)	(0.005)	(0.0003)	0.0012	(0.007)	.	.	0.004	.	50 mm Ø x ~7 or 19+ mm	25(pre-17025)
13X NSA9B	.	.	0.0018	.	.	.	.	.	.	~40 mm Ø x ~15 mm	
13X 30403B	0.0056	.	.	0.0027	.	.	.	0.0139	.	~40 mm Ø x ~15 mm	
HRT FE2014-H	.	.	.	.	.	.	.	.	.	35mm Ø x 20 mm	
BS 9811	(0.003)	(0.003)	(0.0003)	0.0014	(0.0060)	.	.	0.004	.	38 mm Ø x ~7 or 19+ mm	25(pre-17025)
SRM 1155a	<0.01	(0.007)	(0.002)	.	(0.003)	<0.005	.	(0.0069)	.	32 mm Ø x 19 mm	
13X 32900A	0.007	.	0.0028	0.0033	.	.	.	.	.	~40 mm Ø x ~15 mm	
BS 317L	0.0044	(0.003)	0.0012	0.0017	(0.006)	(0.0002)	(0.002)	0.0049	(0.002)	37 mm Ø x ~7 or 19+ mm	17025
NCS HS28764	.	.	Bi:0.013	.	.	.	.	.	.	40 mm Ø x 30 mm	
ECRM 297-1D	0.0195	0.0040	1.146	(0.0002)	.	.	.	.	.	40 mm Ø x 30 mm	
NCS HS28746	0.086	0.0032	.	.	.	0.0002	.	0.0065	.	38 mm Ø x 35 mm	
BS 9942	0.004	(0.004)	0.0014	0.0014	(0.0023)	.	.	0.006	.	44 mm Ø x ~7 or 19+ mm	25(pre-17025)
BS 9941	0.004	(0.010)	0.0025	(0.0003)	(0.0058)	.	.	0.007	.	38 mm Ø x ~7 or 19+ mm	25(pre-17025)
IRSID 1820	.	.	(0.0013)	.	.	.	.	.	.	47 mm x 47 mm x 30 mm	
BS 2205A	(0.004)	0.0072	0.0022	0.0007	0.0046	.	.	0.0058	.	38 mm Ø x ~7 or 19+ mm	17025 Fe: 66.2
NCS HS28742	.	0.0025	.	.	.	0.0001	.	(0.0001)	.	38 mm Ø x 35 mm	
13X NSA8B	.	.	0.0017	0.0011	.	.	.	.	.	~38 mm Ø x ~15 mm	
13X NSA13A	(0.007)	.	0.0030	.	.	(0.0008)	.	0.0046	.	~40 mm Ø x ~15 mm	
SS 463/1	.	.	0.0022	.	.	.	.	.	.	38 mm Ø x 19 mm	
13X NSA12A	0.0169	.	0.0020	.	.	.	.	.	.	~40 mm Ø x ~15 mm	
13X FV520BA	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm	
HRT FE2000-H	.	.	0.0013	.	.	.	.	.	.	40 mm Ø x 20 mm	
IARM Fe2205-18	(0.007)	.	.	.	(0.004)	.	.	(0.006)	.	31 mm Ø x 2 or 18 mm	



SYLAB Ref	Al	As	B	Ca	O	Pb	Sb	Sn	Ta	Units		
NCS HS28745	.	0.0055	.	.	.	0.0001	.	0.0073	.	38 mm Ø x 35 mm		
SS 476	.	0.0053	.	0.0028	.	.	.	0.0059	.	38 mm Ø x 19 mm		
BS 304B	0.0036	0.0051	(0.0004)	0.0009	0.0038	(0.0008)	.	0.0057	.	38 mm Ø x ~7 or 19+ mm	17025	Fe: 69.6
BS 179C	0.0078	0.0034	0.0015	(0.0003)	0.0038	(0.00002)	0.0005	0.0018	(0.0006)	38 mm Ø x ~7 or 19+ mm	17025	Fe:[61.6]
BS 179B	0.0070	0.0036	0.0015	(0.0004)	0.0037	(0.00002)	0.0005	0.0019	(0.0006)	38 mm Ø x 19+ mm	17025	Fe:[61.5]
ECRM 287-1D	.	.	0.924	.	.	.	.	.	.	38 mm Ø x 25 or 30 mm		
13X 34700A	0.023	.	0.0008	.	.	.	.	.	.	~38 mm Ø x ~15 mm		
13X NSA11A	(0.021)	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm		
BS 316F	(0.002)	0.0067	0.0019	0.0018	0.0055	(0.0002)	.	0.0092	Fe:68.1	38 mm Ø x ~7 or 19+ mm	17025	
SS 466/2	0.0018	0.0020	0.0039	.	.	.	.	.	.	38 mm Ø x 19 mm		
HRT FE2016-H	.	.	.	.	.	.	.	.	.	30 mm Ø x 20 mm		
SS 461/1	0.069	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm		
13X 30600A	0.020	.	.	.	Mg:0.0016	.	.	.	.	~32 mm Ø x ~20 mm		
BS SS1961	0.067	0.004	0.0022	.	(0.002)	.	.	0.004	.	38 mm Ø x 12 mm	last	
JK 27B	.	.	0.00072	0.0022	.	.	.	0.0068	.	~37 mm Ø x 25 mm		
BS SS1962	0.062	0.002	0.0018	.	(0.001)	.	.	0.004	.	38 mm Ø x ~7 or 19+ mm		
13X 46500A	0.069	.	0.0016	.	.	.	.	0.0030	.	~32 mm Ø x ~20 mm		
ECRM 284-3D	.	0.00131	0.00020	.	.	.	.	0.00074	.	39 mm Ø x 28 mm		

STAINLESS STEEL XRF SETS															
AVAILABLE IN SETS OR INDIVIDUALLY												~7 mm discs			
Grade	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	V	W
SET BS SS-17															
15-5PH	BS 185A	0.033	0.49	0.022	0.002	0.38	3.41	4.43	14.46	0.026	0.30	0.027	0.32	0.048	(0.014)
17-4PH	BS 17-4PHA	0.018	0.85	0.023	0.022	0.40	3.30	4.69	15.40	0.072	0.34	0.022	0.204	0.043	.
17-7PH	BS 192	0.075	0.84	0.025	0.001	0.38	0.41	7.10	16.42	0.104	0.42	0.029	0.17	0.13	0.04
253 MA	BS 253	0.094	0.58	0.018	<0.001	1.81	0.14	10.89	20.68	0.15	0.21	0.146	0.017	0.050	0.03
255	BS 179C	0.0164	0.878	0.0236	0.0003	0.373	1.53	6.10	25.9	0.0386	3.34	0.236	0.009	0.080	0.056
2205 (318)	BS 2205	0.0199	1.029	0.0227	0.0005	0.564	0.196	5.27	22.92	0.041	3.26	0.169	0.0052	0.0560	0.0309



Grade	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	V	W
303	BS 303	0.044	1.80	0.028	0.326	0.415	0.627	8.17	17.23	0.071	0.410	0.023	0.008	0.056	0.023
304 L	BS 304B	0.017	1.72	0.022	0.023	0.540	0.257	8.68	18.3	0.220	0.42	0.081	0.074	0.097	(0.01)
309	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	0.064	0.041
310	BS 83G	0.073	1.66	0.024	0.004	0.56	0.114	19.15	24.50	0.153	0.085	0.026	0.061	0.077	0.007
316	BS 316F	0.015	1.46	0.029	0.026	0.55	0.437	10.09	16.79	0.126	2.10	0.061	0.011	0.062	0.045
317 L	BS 317L	0.025	1.17	0.029	0.0017	0.67	0.23	13.51	18.2	0.14	3.07	0.055	0.031	0.091	0.017
321	BS 85D	0.048	1.69	0.024	0.024	0.54	0.45	9.98	17.09	0.97	0.59	(0.02)	0.062	0.132	(0.07)
330	BS 86F	0.054	1.30	0.021	0.0011	1.22	0.23	34.99	18.74	0.098	0.24	0.035	0.19	0.061	(0.03)
347	BS 347B	0.051	1.57	0.028	0.026	0.51	0.15	9.16	17.24	0.05	0.38	0.056	0.71	0.04	(0.005)
355	BS 355	0.136	0.862	0.0171	0.0003	0.374	0.173	4.18	15.43	0.053	2.73	0.081	0.0103	0.106	0.0069
PH13-8 Mo	BS 184A	0.035	0.06	0.007	0.001	0.080	0.041	8.34	12.66	0.036	2.20	0.0045	(0.006)	0.014	0.032
SET BS 400-SS-16															
182PM	BS 150	0.048	1.71	0.020	0.33	0.43	0.042	0.19	18.61	0.024	1.97	0.029	0.003	0.054	0.01
410	BS 410C	0.131	0.381	0.0206	0.0051	0.366	0.084	0.352	12.78	0.0185	0.055	0.039	0.0056	0.0006	0.0131
416	BS 90F	0.085	0.53	0.023	0.328	0.58	0.12	0.30	13.01	0.021	0.14	0.037	0.011	0.076	0.032
416 Se	BS 151	0.090	0.41	0.021	0.018	0.65	0.11	0.24	13.19	0.018	0.088	0.022	0.005	0.046	0.010
420	BS 98	0.309	0.48	0.019	0.0014	0.72	0.098	0.21	13.35	0.020	0.034	0.0181	0.003	0.075	0.009
420F	BS 152	0.32	0.36	0.022	0.275	0.44	0.050	0.14	13.41	0.015	0.061	0.020	0.006	0.051	<0.01
422	BS 97	0.216	0.71	0.021	0.0004	0.39	0.066	0.76	11.82	0.041	1.05	0.030	0.007	0.21	0.95
430	BS 91E	0.066	0.42	0.017	0.002	0.52	0.05	0.17	16.58	0.02	0.035	0.032	(0.004)	0.09	0.01
430F	BS 153	0.026	0.41	0.018	0.280	0.53	0.052	0.140	17.38	0.017	0.30	0.021	0.002	0.045	(0.002)
431	BS 92B	0.150	0.42	0.021	0.003	0.42	0.13	2.12	15.92	0.04	0.17	0.073	(0.006)	0.07	0.02
440C	BS 93E	1.02	0.52	0.022	0.0010	0.90	0.12	0.35	17.33	0.048	0.50	0.0359	0.005	0.24	0.11
440F	BS 155	1.00	0.35	0.014	0.145	0.40	0.035	0.13	16.64	0.019	0.46	0.032	0.002	0.10	.
440F Se	BS 156	1.06	1.15	0.022	0.007	0.47	0.09	0.35	16.87	0.047	0.50	0.041	0.005	0.13	0.11
446	BS 94C	0.057	0.45	0.024	0.002	0.62	0.056	0.43	25.90	0.042	0.20	0.065	0.032	0.12	(0.03)
450	BS 95A	0.035	0.58	0.026	0.004	0.46	1.50	6.42	14.72	0.081	0.73	0.0255	0.55	0.052	0.02
455	BS 96A	0.009	0.04	0.007	0.004	0.06	2.07	8.38	11.62	0.03	0.021	.	0.26	0.07	.



SYLAB Ref	Al	B	Ca	Se	Sn	Ti	Others			
SET BS SS-17										
BS 185A	0.002	0.0017	(0.0002)	.	0.007	(0.001)				
BS 17-4PHA	.	0.0016	.	.	.	.	Ta:(0.002)			
BS 192	1.15	(0.0004)	0.0007	.	0.009	0.078				
BS 253	0.016	.	.	.	0.006	0.005	Ce: 0.044	As: 0.005		
BS 179C	0.0078	0.0015	(0.0003)	.	0.0018	(0.0005)	As: 0.0034	O: 0.0038	Sb: 0.0005	17025
BS 2205	0.0080	0.0016	0.0014	.	0.0050	0.0019	As: 0.0059	Fe:[67.0]	O: 0.0034	Sb:0.0010 17025
BS 303	0.0019	0.0013	(0.0015)	.	0.0091	0.017	O: 0.0058	17025		
BS 304B	0.0036	(0.0004)	0.0009	69.6	0.0057	(0.0018)	As: 0.0051	O: 0.0038		
BS 82E	0.006	0.0024	0.0014	.	0.006	0.003				
BS 83G	(0.004)	(0.001)	O:0.0064	.	0.003	(0.003)				
BS 316F	(0.002)	0.0019	0.0018	.	0.0092	0.011	As:0.0067	Fe: 68.1	O: 0.0055	17025
BS 317L	0.0044	0.0012	0.0017	.	0.0049	0.0034	17025			
BS 85D	0.13	(0.001)	0.0004	.	0.0062	0.48	17025			
BS 86F	(0.007)	0.0026	(0.001)	.	0.004	(0.006)				
BS 347B	0.002	0.0036	(0.0005)	.	0.006	(0.002)				
BS 355	0.0192	0.0039	(0.0002)	.	0.0038	0.0007	O: 0.0020			
BS 184A	1.00	(0.0004)	(0.0003)	.	(0.002)	0.051				
SET BS	400-SS-16									
BS 150	0.002	.	.	.	(0.003)	(0.002)				
BS 410C	0.0079	(0.0001)	0.0022	.	0.0023	0.0006	17025			
BS 90F	(0.006)	.	.	.	0.005	(0.002)				
BS 151	(0.002)	.	.	0.328	0.005	(<0.003)				
BS 98	0.003	.	(0.0005)	.	0.006	0.002				
BS 152	(0.002)	.	.	.	0.003	(0.002)				
BS 97	0.018	.	.	.	(0.003)	(0.002)				
BS 91E	(0.002)	.	0.0008	.	0.004	(0.002)				
BS 153	(0.004)	.	.	.	0.002	(0.004)				
BS 92B	(0.002)	.	(0.0009)	.	0.006	(0.002)				



SYLAB Ref	Al	B	Ca	Se	Sn	Ti	Others
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	

HIGH ALLOY STEEL

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

#	SYLAB Ref	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	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 DS5E	0.080	1.04	.	.	1.98	0.30	36.6	8.64	0.083	0.50	0.30	.	.	0.17	.
1	NCS HS41747	0.071	0.807	0.015	0.0006	0.36	0.038	32.27	20.72	0.299	0.050	0.297	.	.	0.49	.
1	SS 479	0.0529	0.680	0.0029	0.0030	0.553	0.0052	24.87	19.922	(0.013)	(0.002)	(0.003)	0.0057	0.625	0.0306	0.0052
1	BS CD4MCU	0.045	0.568	0.025	0.021	0.71	2.93	5.62	24.46	0.0063	(0.03)	1.98	0.229	(0.004)	0.021	0.108
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	BS 186A	0.040	0.72	0.008	0.0053	0.19	0.016	35.86	0.16	(0.001)	0.028	0.0032	0.0026	(<0.002)	(<0.003)	0.0012
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
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
1	13X 17005E	0.0217	0.209	0.0040	0.0431	1.739	0.120	20.06	24.65	0.049	0.0265	0.599	0.0097	0.101	0.0073	.
2	CT ISO139A	0.021	1.00	0.001	0.0005	0.015	<0.001	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)
1	BS CD4MCU-A	0.021	0.38	(0.008)	0.0072	0.31	2.92	5.18	24.6	(0.009)	(0.005)	1.92	0.0112	(0.009)	0.021	(0.006)
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	BS 189A	0.0147	0.639	0.019	(0.001)	0.30	0.184	23.8	20.4	0.0129	0.100	6.04	0.198	(0.13)	0.0065	0.054
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	ECRM 379-1D	0.0121	1.804	0.0166	0.0006	0.393	0.984	30.83	26.79	(0.00246)	0.0390	3.290	0.0550	(0.0028)	(0.0014)	0.0663
1	NCS HS41753a	0.012	0.973	0.021	0.013	0.480	1.26	24.28	19.16	.	0.180	4.25	0.041	0.812	0.004	0.075



#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	Nb	Ti	V
1	14X 93603A	0.0101	0.339	0.0050	0.0045	0.153	0.0460	35.79	0.024	0.0404	0.0974	0.0145	0.0057	.	0.0011	.
1	SRM 1159	0.007	0.30	0.003	0.003	0.32	0.038	48.2	0.06	.	0.022	0.01	.	.	.	.
1	BS 160A	0.0064	0.180	0.0007	(0.0002)	0.158	0.026	29.6	0.0138	0.088	17.0	0.0100	0.0026	0.0014	0.026	0.0008
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
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	.

SYLAB Ref	As	B	Ca	Ce	Mg	O	Se	Sn	Ta	W	Zr	Units			
SRM 1246	(0.004)	<0.001	Ga:	(0.004)	.	(0.003)	.	.	.	(<0.004)	.	35 mm Ø x 19 mm			
23X DS5E	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm			
NCS HS41747	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 30 mm			
SS 479	(0.002)	<0.0005	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm			
BS CD4MCU	(0.0003)	0.019	0.0040	0.0028	(0.001)	.	17025	(0.03)	.	0.024	(0.002)	36 mm Ø x 26 mm			
SRM 1230	.	0.0055	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm			
BS 186A	.	.	.	.	.	.	0.229	(0.002)	.	(0.01)	.	38 mm Ø x ~7, ~12 or 19 mm			
SRM 1158	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm			
BS 187A	.	0.0022	.	(0.025)	.	0.0029	.	0.003	<0.002	(0.02)	.	41 mm Ø x ~7 mm			
13X 17005E	.	0.0030	.	.	.	.	.	.	0.015	.	.	~40 mm Ø x ~15 mm			
SRM 1247	(0.003)	0.002	Ga:	(0.011)	.	(0.005)	.	.	.	(0.005)	.	35 mm Ø x 19 mm			
ECRM 299-1D	0.0054	0.0002	.	.	.	.	.	.	.	.	0.1775	40 mm Ø x 25 mm			
BS 189A	0.0039	(0.0002)	(0.0004)	.	.	0.0024	17025	0.0035	.	0.037	(0.001)	38 mm Ø x ~7 or 19+ mm			
NILAB 501HA D	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 20 mm			
ECRM 379-1D	(0.0018)	0.00190	0.0033	.	(0.0006)(0.0027)	.	.	0.0021	.	(0.0091)	(0.00033)	38 or 45 mm Ø x 25 mm			
NCS HS41753a	.	.	.	.	.	.	.	.	.	0.058	.	37 mm Ø x 35 mm			
14X 93603A	.	.	.	.	0.0019	.	.	.	.	.	(0.0009)	~40 mm Ø x ~15 mm			
SRM 1159	.	.	.	.	.	.	.	.	.	.	.	31 mm Ø x 19 mm			
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 mm			
BS 160A	0.0011	0.0010	(0.0004)	.	0.0032	0.0022	17025	0.0024	Ta,	W:(0.0001)	0.0048	38 mm Ø x ~7 or 19+ mm			
BS 161A	(0.002)	0.0023	(0.0008)	.	.	(0.0004)	.	(0.0015)	(0.03)	(0.008)	(0.002)	38 mm Ø x ~12 or 19 mm			
ECRM 285-2D	.	0.0009	.	.	.	.	.	.	.	.	0.0050	38 mm Ø x 25 or 30 mm			



HIGH ALLOY STEEL XRF SET

Part SYLAB Ref: BS HAS-12		RM except			CRM as noted,			available as set or individually				* Provisional Analysis					~7 mm Ø discs		
SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	B	Co	N	Nb	Sn	Ti	V	W	O
Grade																			
BS 189A	0.0147	0.639	0.019	(0.001)	0.30	0.184	23.8	20.4	6.04	0.0129	(0.0002)	0.100	0.198	(0.13)	0.0035	0.0065	0.054	0.037	0.0024
BS 179A	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 183B	0.181	0.344	0.018	0.0042	0.41	0.074	1.96	12.45	0.33	0.0009	(0.0007)	0.032	0.044	(0.0075)	0.0046	(0.0016)	0.165	3.5	(0.0054)
BS 186A	0.040	0.72	0.008	0.0053	0.19	0.016	35.86	0.16	0.0032	(0.001)	.	0.028	0.0026	(<0.002)	(0.002)	(<0.003)	0.0012	(0.01)	.
BS 187A	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 188B	0.046	0.247	0.016	(0.0007)	0.266	0.120	24.81	14.32	1.30	0.168	0.0047	0.274	0.0021	0.099	0.0051	2.20	0.264	0.043	0.0006
A-286 CRM																			
BS 190	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	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	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	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	0.037	15.09	0.022	(0.003)	0.46	0.56	1.11	16.67	0.99	.	.	0.032	(0.40)	(0.005)	(0.003)	(0.003)	0.059	(0.01)	.
17Cr-15Mn																			
BS 191	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	.

CRM
CAST IRON SETS

AVAILABLE IN SETS ONLY, as grouped

SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Sn	Ti	V	Ce	La	Mg	N
30 mm Ø x 28 mm																	
NCS HS11712a-6	4.02	1.41	0.021	0.026	0.163	1.83	1.89	0.112	0.019	0.726	0.057	0.238	0.509	<0.0001	<0.0001	0.104	0.013
NCS HS11712a-7	3.94	1.38	0.085	0.0048	0.918	1.10	1.37	1.05	0.214	0.168	0.134	0.114	0.390	<0.0001	<0.0001	0.056	0.0063
NCS HS11712a-5	3.52	0.311	0.420	0.019	1.17	0.389	1.03	0.766	.	0.629	0.013	0.161	0.324	<0.0001	<0.0001	0.021	0.0047
NCS HS11712a-4	3.16	0.462	0.396	0.017	1.96	0.921	0.778	1.40	0.0073	0.428	0.024	0.065	0.166	<0.0001	<0.0001	0.025	0.0073
NCS HS11712a-2	2.22	0.301	0.043	0.058	2.44	0.458	0.341	2.13	0.060	0.087	0.044	0.065	0.055	0.0010	0.010	0.0085	0.024
NCS HS11712a-3	2.55	0.878	0.071	0.045	1.50	0.641	0.519	0.417	0.034	0.354	0.021	0.027	0.085	0.027	0.0061	0.024	0.024
NCS HS11712a-1	1.75	0.080	0.580	0.119	3.40	0.025	0.030	2.48	0.248	0.031	0.0031	0.038	0.021	<0.0001	<0.0001	0.0006	0.015
30 mm Ø x 30 mm																	



SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Sn	Ti	V	Ce	La	Mg	N
NCS HS19701-7	4.13	2.06	0.306	0.111	1.85	.	0.026	0.157	.	.	0.043	0.399	0.821	.	.	.	.
NCS HS19701-6	3.93	1.46	0.168	0.124	0.99	.	0.094	0.387	.	(0.112)	0.0018	0.105	0.506	.	.	.	.
NCS HS19701-5	3.67	0.596	0.072	0.117	0.183	.	0.502	0.171	.	(0.68)	0.0022	0.066	0.335	.	.	.	.
NCS HS19701-4	3.70	0.857	0.087	0.076	0.451	.	0.032	0.117	.	(0.031)	0.0017	0.030	0.158	.	.	.	.
NCS HS19701-3	3.29	1.22	0.045	0.056	0.689	.	0.046	0.030	.	.	0.009	0.043	0.071	.	.	.	.
NCS HS19701-2	2.99	0.329	0.033	0.038	0.937	.	0.194	0.080	.	.	0.024	0.216	0.044	.	.	.	.
NCS HS19701-1	2.46	0.072	0.011	0.019	0.099	.	0.183	0.511	.	.	0.005	0.0059	0.0090	.	.	.	.

RM		GRAY IRON																
as cast (not chill cast)		CONTAINS FREE GRAPHITE								OES regularly requires extension of preburn time to analyze correctly								
SYLAB	Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	As	Co	Mo	Sb	Sn	Ti	V	mm Ø x mm H
BS 20G		3.33	0.58	0.028	0.029	3.02	0.54	0.38	0.086	0.008	0.004	0.022	0.19	(<0.001)	0.12	0.012	0.018	47 x 19+
BS 20W		3.27	0.62	0.045	0.036	2.64	0.29	0.082	0.092	0.004	0.004	0.005	0.054	(<0.001)	0.086	0.015	0.007	47 x 13
BS 20R		3.25	0.62	0.047	0.034	2.72	0.35	0.096	0.094	0.005	0.004	0.006	0.053	(<0.001)	0.104	0.015	0.007	47 x 19+
BS 20E		3.24	0.80	0.042	0.044	2.29	0.23	0.156	0.088	0.006	(0.003)	0.006	0.042	(<0.002)	0.093	0.017	0.007	47 x 19+
BS 20P		3.22	0.63	0.032	0.044	2.62	0.067	0.143	0.079	0.008	(0.004)	0.018	0.033	(<0.001)	0.099	0.018	0.017	44 x 19+

		DUCTILE / NODULAR IRON															
		# = class, where 1 = CRM and 2 = RM								* Provisional Analysis							
#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Ce	Co	Mg	Mo	Ti	V	
1	SCRM 666/12	3.599	0.106	.	.	1.763	0.0581	1.709	0.102	.	.	.	0.083	0.0979	0.1069	0.0486	
1	SCRM 667/13	3.04	0.222	.	.	2.866	0.497	1.303	0.294	.	0.110	.	0.070	.	.	0.103	
1	BS 285BH	3.43	0.732	0.0470	0.0128	1.93	0.321	1.38	1.05	0.0168	.	0.0034	0.052	0.238	0.0429	0.122	
1	BS 286CI	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	0.052	0.258	0.052	0.150	
1	BS 285BG	3.44	0.731	0.0469	0.0126	1.93	0.321	1.39	1.05	0.0165	.	0.0038	0.051	0.238	0.0427	0.122	
1	BS 286CH	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	0.051	0.258	0.052	0.150	
1	BS 285BF	3.43	0.732	0.0472	0.0127	1.93	0.320	1.386	1.047	0.0164	.	0.0033	0.050	0.238	0.0424	0.122	
1	BS 286CG	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	0.050	0.258	0.052	0.150	
1	BS 285BE	3.45	0.732	0.0474	0.0128	1.93	0.321	1.38	1.047	0.0162	.	(0.003)	0.049	0.238	0.0428	0.122	



#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Ce	Co	Mg	Mo	Ti	V
1	BS 286CF	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	0.049	0.258	0.052	0.150
1	BS 285BD	3.45	0.730	0.0471	0.0126	1.93	0.322	1.39	1.047	0.0160	.	0.0036	0.048	0.238	0.0427	0.121
1	BS 286CE	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	0.048	0.258	0.052	0.150
1	BS 286CD	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	0.047	0.258	0.052	0.150
1	SCRM 670/23	3.585	0.318	0.0464	0.0098	2.234	0.976	0.907	0.498	.	0.0123	.	0.0468	0.0109	0.111	0.0257
1	BS 286CC	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	0.046	0.258	0.052	0.150
1	BS 291GJ *	3.34	0.50	0.034	0.014	2.31	0.23	0.098	0.069	0.043	.	0.004	0.045	0.030	0.027	0.033
1	BS 291GI *	3.34	0.50	0.034	0.014	2.31	0.23	0.098	0.069	0.043	.	0.004	0.044	0.030	0.027	0.033
1	BS 286CB	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	0.043	0.258	0.052	0.150
1	BS 291GH *	3.34	0.50	0.034	0.014	2.31	0.23	0.098	0.069	0.042	.	0.004	0.043	0.030	0.027	0.033
1	BS 291GG *	3.34	0.50	0.034	0.014	2.31	0.23	0.098	0.069	0.041	.	0.004	0.042	0.030	0.027	0.033
1	BS 291GF *	3.34	0.50	0.034	0.014	2.31	0.23	0.098	0.069	0.040	.	0.004	0.041	0.030	0.027	0.033
1	BS 291GD *	3.34	0.50	0.034	0.014	2.31	0.23	0.098	0.069	0.039	.	0.004	0.039	0.030	0.027	0.033
1	BS 291GC *	3.34	0.50	0.034	0.014	2.31	0.23	0.098	0.069	0.038	.	0.004	0.038	0.030	0.027	0.033
2	BAS SIMO 1/5	2.72	0.330	0.031	0.014	3.94	0.005	0.035	0.889	0.029	.	0.004	0.034	0.738	0.008	0.004
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	BAS SIMO 2/2	2.14	0.434	0.025	0.007	4.75	0.010	0.0189	0.856	0.013	0.006	0.0029	0.026	0.484	0.005	0.009
1	SCRM 669/15	3.09	0.52	0.041	0.0108	2.41	0.217	0.48	0.260	.	0.040	.	0.023	0.057	0.058	0.50
1	SCRM 668/14	3.77	0.702	0.045	0.0220	1.72	0.65	0.096	0.99	.	0.023	.	0.009	0.0179	0.086	0.195
1	SRM C2424	2.68	0.268	0.041	0.024	3.37	0.125	0.061	0.13	(<0.01)	0.0046	(0.05)	0.006	0.019	0.050	0.083

SYLAB Ref	As	B	Ca	Fe	La	Nb	Pb	Sb	Sn	W	Zr	Units
SCRM 666/12	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
SCRM 667/13	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
BS 285BH	0.0007	0.0084	0.0010	90.54	.	0.0040	0.0009	(0.2)	0.0017	0.0612	0.0055	~35 mm Ø x ~30 mm 17025
BS 286CI	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm 17025
BS 285BG	0.0008	0.0084	0.0010	90.54	.	0.0039	0.0009	(0.2)	0.0017	0.0611	0.0055	~35 mm Ø x ~30 mm 17025
BS 286CH	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm 17025
BS 285BF	0.0009	0.0084	0.0010	90.54	.	0.0039	0.0008	(0.2)	0.0018	0.0608	0.0054	~35 mm Ø x ~30 mm 17025
BS 286CG	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm 17025



SYLAB Ref	As	B	Ca	Fe	La	Nb	Pb	Sb	Sn	W	Zr	Units
BS 285BE	0.0010	0.0084	0.0009	90.53	.	0.0038	0.0007	(0.2)	0.0016	0.0607	0.0054	~35 mm Ø x ~30 mm17025
BS 286CF	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm17025
BS 285BD	0.0010	0.0084	0.0009	90.54	.	0.0039	0.0007	(0.2)	0.0017	0.0608	0.0055	~35 mm Ø x ~30 mm17025
BS 286CE	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm17025
BS 286CD	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm17025
SCRM 670/23	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
BS 286CC	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm17025
BS 291GJ *	0.005	0.016	0.001	[93.1]	.	0.004	<0.005	0.003	0.048	0.004	0.002	~33-35 mm Ø x ~28-32 mm
BS 291GI *	0.005	0.016	0.001	[93.1]	.	0.004	<0.005	0.003	0.048	0.004	0.002	~33-35 mm Ø x ~28-32 mm
BS 286CB	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm17025
BS 291GH *	0.005	0.016	0.001	[93.1]	.	0.004	<0.005	0.003	0.048	0.004	0.002	~33-35 mm Ø x ~28-32 mm
BS 291GG *	0.005	0.016	0.001	[93.1]	.	0.004	<0.005	0.003	0.048	0.004	0.002	~33-35 mm Ø x ~28-32 mm
BS 291GF *	0.005	0.016	0.001	[93.1]	.	0.004	<0.005	0.003	0.048	0.004	0.002	~33-35 mm Ø x ~28-32 mm
BS 291GD *	0.005	0.016	0.001	[93.1]	.	0.004	<0.005	0.003	0.048	0.004	0.002	~33-35 mm Ø x ~28-32 mm
BS 291GC *	0.005	0.016	0.001	[93.1]	.	0.004	<0.005	0.003	0.048	0.004	0.002	~33-35 mm Ø x ~28-32 mm
BAS SIMO 1/5	(0.001)	.	.	.	.	.	.	.	0.052	.	.	48 mm x 42 mm x 12 mm
SRM C1137a	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
BAS SIMO 2/2	0.039	.	.	.	.	.	.	.	0.038	.	.	48 mm x 42 mm x 12 mm
SCRM 669/15	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
SCRM 668/14	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
SRM C2424	.	(0.002)	.	.	0.0011	.	.	.	.	.	.	32 mm Ø x 19 mm

RM		Si-Mo CAST IRON															
BAS SIMO: 48 mm x 42 mm x 12 mm block										CTIF: each unit = one pair				43 mm Ø x 5 mm discs			
SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Ti	V	Co	As	Sn	Ce	Mg
CTIF SiMo-3	3.18	0.61	0.053	(0.0006)	4.02	0.0325	0.066	0.110	0.604	1.15	0.0176	0.0171	0.0296	.	.	.	0.013
CTIF SiMo-1	2.98	0.365	0.013	(0.0015)	4.03	0.035	0.065	0.036	0.752	.	(0.018)	(0.018)	(0.03)	.	.	.	0.019
CTIF SiMo-5	2.94	0.439	0.0282	.	4.31	0.0121	0.194	0.032	0.841	.	0.010	(0.0095)	(0.013)	.	.	.	.
CTIF SiMo-2	(2.85)	0.335	0.0260	(0.001)	3.85	0.036	(0.061)	0.038	1.04	1.51	(0.016)	(0.017)	(0.030)	.	.	.	0.072



SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Ti	V	Co	As	Sn	Ce	Mg
BAS SIMO 1/3	2.70	0.333	0.040	0.007	4.07	0.028	0.030	0.899	0.776	0.026	0.007	0.007	0.013	0.047	0.048	.	0.036
CTIF SiMo-4	2.70	0.280	0.0211	(0.0015)	4.35	0.0657	(0.029)	0.0845	0.400	(0.038)	0.0171	0.0133	(0.015)	.	.	.	0.100
BAS SIMO 2/3	2.20	0.463	0.035	0.010	4.78	0.007	0.011	0.903	0.486	0.026	0.010	0.005	0.005	(0.001)	0.052	(0.001)	0.024

CAST IRON WITH MAGNESIUM - CONTINUED ON THE NEXT PAGE

= class, where 1 = CRM and 2 = RM

* Provisional Analysis

#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Mg	Te	Al	Ce	Co	Mo	Ti	V
1	SCRM 668/14	3.77	0.702	0.045	0.0220	1.72	0.65	0.096	0.99	0.009	.	.	0.023	.	0.0179	0.086	0.195
1	SCRM 666/12	3.599	0.106	.	.	1.763	0.0581	1.709	0.102	0.0838	.	.	.	.	0.0979	0.1069	0.0486

#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Mg	Te	Al	Ce	Co	Mo	Ti	V
1	SCRM 667/13	3.04	0.222	.	.	2.866	0.497	1.303	0.294	0.070	.	.	0.110	.	.	.	0.103
1	SCRM 669/14	2.955	0.526	.	.	2.201	0.194	0.473	0.214	0.0224	.	.	0.0415	.	0.0550	0.0499	0.532

SCRM: 48 mm x 42 mm x 12 mm

SRM: 32 mm Ø x 19 mm

CAST IRON WITH MAGNESIUM - CONTINUED FROM THE PREVIOUS PAGE

sizes shown below

SYLAB Ref	As	B	Bi	Ca	Fe	La	Nb	Pb	Sb	Se	Sn	W	Zr	Other
SCRM 668/14	.	.	.	.	.	.	.	.	.	.	.	.	.	
Y 2863-12	(0.0097)	0.0078	.	.	.	.	0.21	(0.056)	(0.471)	.	(0.307)	0.13	.	
SCRM 666/12	.	.	.	.	.	.	.	.	.	.	.	.	.	
SCRM 667/13	.	.	.	.	.	.	.	.	.	.	.	.	.	
BS CC-11A	0.0018	0.0008	(0.005)	(0.0009)	93.6	(0.004)	(0.007)	(0.002)	(0.01)	Zn:0.0032	(0.004)	(0.017)	(0.0025)	17025
BS CC-11B	0.0074	0.0033	(0.016)	(0.002)	93.2	(0.008)	0.043	0.014	0.026	Zn:0.008	0.021	0.028	0.0165	17025
SCRM 669/14	.	.	.	.	.	.	.	.	.	.	.	.	.	
SRM C1137a	.	.	.	.	.	.	.	.	.	.	.	.	.	
SRM C2424	.	(0.002)	.	.	.	0.0011	.	.	.	.	.	.	.	

BS: 28-35 mm Ø x 17-35 mm CZ: 40 mm Ø x 18 mm

SRM: 32 mm Ø x 19 mm

VS ChM: ~39 mm Ø x ~39 mm

SCRM: 48 mm x 42 mm x 12 mm

Y: 30-35 mm Ø x 18-30 mm

VS ChG: ~34 mm x ~35 mm X ~22 mm



RM CAST IRON WITH YOUR CHOICE OF MAGNESIUM LEVELS

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

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

6736 0.04 to order CTIF 8018 with 0.08 % Mg, order as part SYLAB Ref CTIF 8018 0.08

CRM WHITE IRON

analysis listed in mass %

SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	Nb	Ti	V	
BS WI-2	3.61	0.80	0.22	0.056	0.52	0.0124	0.254	0.229	0.0118	0.219	0.128	0.089	0.215	17025
SRM C1145	2.92	0.187	0.215	0.191	0.271	0.46	0.62	0.63	0.058	0.48	.	0.012	0.112	
BS WI-1	1.75	0.24	0.051	0.114	1.90	0.027	0.053	0.048	0.0074	0.0103	0.027	0.020	0.008	17025

SYLAB Ref	Al	As	B	Bi	Ca	Fe	Mg	Pb	Sb	Sn	W	Zr	Units
BS WI-2	0.0192	0.0016	0.0008	.	(0.00013)	[93.6]	(0.0002)	0.013	0.023	0.0042	0.023	0.0045	~35 mm Ø x ~30 mm
SRM C1145	(0.04)	(0.03)	(0.02)	(<0.01)	.	.	.	0.0012	(0.04)	(0.10)	.	(0.002)	32 mm Ø x 19 mm
BS WI-1	0.075	0.0067	0.0032	.	0.0005	[95.5]	0.0009	0.115	.	0.0081	0.185	0.0034	~35 mm Ø x ~30 mm



CAST IRON WITH C > 2.75% - CONTINUED ON THE NEXT PAGE

= class, 1 = CRM and 2 = RM

#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	Nb	Sn	Ti	V	Zn
1	SCRM 672/1	4.322	0.474	0.198	0.036	0.143	0.100	0.083	0.0186	0.0102	0.139	0.117	.	0.0047	0.0373	0.0988	.
1	SCRM 659/9	4.174	1.010	0.0215	0.0372	1.361	.	.	.	.	.	.	.	.	.	.	.
1	11X C6W	3.80	0.967	0.088	0.064	0.81	0.952	0.072	0.396	0.021	0.046	1.32	0.010	0.030	0.195	0.045	0.0045
1	SCRM 674/1	3.71	1.437	0.0180	0.078	0.484	.	0.161	0.0296	0.0061	0.0066	0.0497	.	0.0164	0.0131	0.0125	.
1	11X HPC4Q	3.48	1.19	1.63	0.102	1.70	0.078	2.03	0.788	.	.	0.101	.	.	.	0.029	.
1	11X C3AD	3.45	0.896	0.539	0.180	1.06	0.351	4.34	1.669	0.0104	0.240	0.235	0.021	0.166	0.127	0.605	0.007
1	11X C10D	3.38	0.754	0.104	0.086	1.89	0.643	0.873	0.429	0.024	0.059	0.288	.	0.035	0.0474	0.1048	.
1	NCS HS11784	3.30	0.528	0.78	0.031	2.68	0.015	0.024	0.812	(0.0012)	.	0.142	(0.0012)	0.0005	0.084	0.020	.
1	11X HPC1H	3.29	0.620	0.808	0.0035	3.27	.	.	1.056	.	.	0.060	.	.	.	.	.
1	11X HPC3K	3.24	1.00	2.52	0.078	1.37	0.132	1.52	1.19	.	.	0.172	.	.	.	0.042	.
2	BAS NCRM3	3.24	0.67	0.125	0.090	0.29	1.21	3.64	3.95	.	.	0.78	.	.	.	0.02	.
1	NCS HS11782	3.21	1.09	0.088	0.035	1.64	0.042	0.014	0.061	.	.	0.0048	.	.	0.027	0.0079	.
1	NCS HS11785	3.19	0.482	0.79	0.030	2.52	0.021	0.031	0.817	(0.0030)	.	0.139	(0.0009)	0.0010	0.076	0.018	.
1	11X C2V	3.17	1.23	0.256	0.077	1.180	0.191	1.803	1.126	0.104	0.116	0.116	0.0160	0.0627	0.0870	0.328	0.0115
1	SCRM 671/1	3.165	0.811	0.108	0.0503	0.868	.	0.0627	0.0609	0.030	0.098	0.0259	.	0.0103	0.0407	0.0122	.
1	SCRM 657/9	3.157	0.112	0.101	0.0401	3.209	.	.	.	.	.	.	.	.	.	.	.
2	BAS NCRM1	3.05	1.22	0.300	0.156	0.95	2.17	0.57	0.55	.	.	1.02	.	.	.	0.03	.
1	11X C9E	3.03	1.87	0.045	0.020	1.39	0.433	2.66	1.48	0.072	0.169	0.166	0.077	0.047	0.116	0.437	0.0091
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 LARM5/1	2.98	0.33	0.049	0.012	2.02	.	2.56	.	.	.	0.58	.	0.023	.	0.23	.
2	BAS NCRM2	2.97	0.95	0.068	0.119	1.82	1.67	2.10	1.99	.	.	0.36	.	.	.	0.16	.
1	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	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	.



#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	Nb	Sn	Ti	V	Zn
1	NCS HS11786	2.82	0.768	1.70	0.064	2.05	0.044	0.048	1.98	(0.0094)	.	0.251	0.012	0.0062	0.102	0.029	.
1	11X C5Y	2.78	0.754	0.092	0.092	1.913	0.443	1.186	0.950	0.060	0.0495	0.54	0.020	0.0357	0.0934	0.0739	0.0107

CAST IRON WITH C > 2.75% - CONTINUED FROM THE PREVIOUS PAGE

analysis in mass %		except * = mg/kg															
SYLAB Ref		As	B	Bi	Ca*	Ce	La	Mg	N	Pb	Sb	Se	Te	W	Zr	Units	
SCRM 672/1		0.0079	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm	
SCRM 659/9		.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm	
SCRM 674/1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm	
VS ChL1/1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm	
NCS HS11784		0.0041	.	0.0083	.	.	.	.	.	0.0002	0.0007	.	.	.	.	31 mm Ø x 28 mm	
11X HPC1H		.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm	
11X HPC3K		.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm	
BAS NCRM3		.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm	
NCS HS11782		0.0065	.	.	.	.	.	.	.	.	.	.	.	.	.	31 mm Ø x 28 mm	
NCS HS11785		0.0049	.	0.013	.	.	.	.	.	0.0002	0.0005	.	.	.	.	31 mm Ø x 28 mm	
11X C2V		0.0541	0.0098	0.0084	.	.	.	.	0.0096	0.0133	0.115	0.0157	.	0.0228	.	~40 mm Ø x ~15 mm	
SCRM 671/1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 12 mm	
SCRM 657/9		.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm	
BAS NCRM1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm	
BAS LARM2		0.044	.	.	.	0.008	.	.	.	0.007	.	.	.	.	.	40 mm x 37 mm x 10 mm	
BAS LARM4		.	.	.	.	0.008	.	.	.	0.018	.	.	.	.	.	40 mm x 37 mm x 10 mm	
BAS LARM1		.	0.006	0.011	.	0.005	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm	
BAS LARM5		0.018	0.0012	0.0010	.	.	.	.	.	0.0005	.	.	.	.	.	40 mm x 37 mm x 10 mm	
BAS LARM3		0.092	0.003	0.022	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm	
BAS LARM5/1		.	0.0016	0.0012	.	.	.	.	.	<0.001	.	.	.	.	.	40 mm x 37 mm x 10 mm	
BAS NCRM2		.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm	
SCRM 662/4		.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 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	



SYLAB Ref	As	B	Bi	Ca*	Ce	La	Mg	N	Pb	Sb	Se	Te	W	Zr	Units
NCS HS11786	0.0075	.	0.015	.	.	.	.	.	0.0003	0.0008	.	.	.	.	31 mm Ø x 28 mm
11X C5Y	0.0203	0.0058	0.005	.	.	.	.	0.0094	0.0108	0.030	0.0072	(0.0022)	0.0072	(0.0024)	~40 mm Ø x ~15 mm

CAST IRON WITH C < 2.75%

= class, 1 = CRM and 2 = RM

analysis in mass %

except * = mg/kg

#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	Nb	Sn	Ti	V	Zn
1	SRM C1291	2.67	1.14	0.028	0.032	1.34	0.26	4.34	2.78	.	.	0.32	.	.	.	0.031	.
1	SCRM 661/4	2.56	0.30	0.84	0.068	2.96	.	.	(1)	.	.	.	.	.	.	.	.
1	SCRM 656/9	2.537	0.820	0.060	0.108	2.504	.	.	.	.	.	.	.	.	.	.	.
1	SCRM 673/1	2.455	0.123	0.317	0.0112	1.702	.	0.103	0.0423	0.0287	0.053	0.0092	.	0.0206	0.0718	0.052	.
1	11X C4S	1.954	0.565	0.1014	0.096	2.98	0.095	3.21	1.382	0.006	0.0210	0.177	0.0233	0.0140	0.080	0.0165	0.0037
1	SCRM 675	1.92	1.81	0.045	0.072	1.29	0.012	0.210	0.080	0.007	0.023	0.034	.	0.0062	0.007	0.178	0.0006
1	SCRM 655/4	1.90	0.44	0.180	0.076	2.110	.	.	(1)	.	.	.	.	.	.	.	.

SYLAB Ref	As	B	Bi	Ca*	Ce	Mg	N	Pb	Sb	Se	Te	W	Zr	Units
SRM C1291	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
SCRM 661/4	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
SCRM 656/9	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
VS ChG 37	.	.	.	.	.	.	.	.	.	.	.	.	.	~34 mm Ø x ~37 mm
SCRM 673/1	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
SCRM 652/4	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
SCRM 675	0.035	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
SCRM 655/4	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm

ALLOYED CAST IRON, CHART 1 of 2

= class, where 1 = CRM and 2 = RM

#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Pb	Sn	Ti	V	Mg	N
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	.	.



#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Pb	Sn	Ti	V	Mg	N
2	BAS CRRM5/2	3.43	0.30	0.029	0.018	0.20	0.22	0.36	30.35	0.15	0.63	.	.	0.009	0.11	.	.
1	BS PM15	3.54	0.416	0.0198	0.0127	0.912	0.142	0.203	5.33	0.0025	1.22	(0.00001)	0.0034	0.0029	14.79	(0.0002)	0.111
1	SRM C1290	3.04	0.66	0.030	0.013	0.971	0.065	0.917	30.5	.	(0.041)	.	.	.	0.442	.	.
1	NCS HS11788	2.97	1.62	0.191	0.010	3.29	0.51	17.77	2.56	(0.0023)	0.0013	.	0.0003	0.043	0.017	.	.
2	BAS NIRM5/1	2.95	1.01	0.103	0.005	1.50	0.21	21.7	0.51	.	.	.	.	.	.	0.055	.
2	BAS NIRM2/2	2.94	2.01	0.096	0.007	1.43	5.93	13.69	1.48	.	.	.	.	.	.	0.044	.
2	BAS CRRM4/2	2.93	0.58	0.049	0.042	0.45	0.53	0.58	21.93	<0.005	1.15	.	.	0.008	0.11	.	.
2	11X 20003K	2.91	1.53	0.174	0.007	3.03	0.52	17.8	2.53	.	.	.	.	.	.	.	.
1	11X S/1 Cr3J	2.91	0.861	0.072	0.023	1.07	9.01	14.53	1.61	.	.	.	.	.	.	.	.
2	BAS NCRM4	2.66	0.40	0.203	0.012	2.13	0.68	5.34	7.94	.	0.57	.	.	.	0.11	.	.
1	NCS HS11787	2.65	1.08	0.067	0.037	2.07	0.306	19.84	1.98	(0.085)	0.0014	.	0.0054	0.022	0.0096	.	.
1	11X 15310B	2.63	0.97	0.070	0.029	0.99	2.37	4.59	20.7	0.018	0.92	.	.	0.034	0.096	.	.
1	11X 0331-2M	2.62	1.85	0.050	(0.09)	3.14	6.68	15.1	1.54	0.137	0.067	0.019	0.0271	0.198	0.051	.	.
1	11X 15295S	2.58	1.02	0.059	0.048	0.783	0.213	0.326	28.5	0.122	0.363	0.008	0.026	0.008	0.270	.	.
1	Y TSK201	2.56	1.07	0.253	0.023	0.66	1.53	2.44	10.14	.	2.56	.	.	.	0.42	.	0.029
2	BAS NIRM6/1	2.53	4.07	0.225	0.049	2.68	0.11	26.9	1.02	.	0.51	.	.	.	.	.	.
2	BAS NIRM3	2.51	0.51	0.208	0.096	2.21	1.00	17.8	2.43	.	.	.	.	.	.	.	.

SYLAB Ref	B	Ce	Co	Nb	W	Zr	Units	Other				
BAS NCRM5	.	.	.	.	.	.	40 mm x 37 mm x 10 mm					
SRM C1292	.	.	.	.	.	.	32 mm Ø x 19 mm					
BAS CRRM5/2	.	.	.	.	.	.	48 mm x 42 mm x 12 mm					
BS PM15	.	.	0.0330	0.014	0.109	(0.0005)	38 mm Ø x 19+ mm	17025	Fe:[73.0]	As:0.0040	N:0.111	O:0.0129
SRM C1290	.	.	.	.	.	.	32 mm Ø x 19 mm					
NCS HS11788	0.0008	.	(0.0063)	.	(0.0002)	.	31 mm Ø x 28 mm	As: 0.014				
BAS NIRM5/1	.	0.016	.	0.15	.	.	48 mm x 42 mm x 12 mm					
58A ZS01036	.	.	0.024	0.025	0.172	.	~32 mm Ø x ~30 mm	As: (0.003)				
BAS NIRM2/2	.	0.018	.	.	.	.	48 mm x 42 mm x 12 mm					
BAS CRRM4/2	.	.	.	.	.	.	48 mm x 42 mm x 12 mm					
BAS NCRM4	.	.	.	.	.	.	40 mm x 37 mm x 10 mm					



SYLAB Ref	B	Ce	Co	Nb	W	Zr	Units	Other
NCS HS11787	0.0007	.	(0.0054)	.	(0.0002)	.	31 mm Ø x 28 mm	As: 0.0075
BAS NIRM6/1	.	0.006	.	.	.	.	48 mm x 42 mm x 12 mm	
BAS NIRM3	.	0.007	.	0.09	.	.	40 mm x 37 mm x 12 mm	

ALLOYED CAST IRON, CHART 2 of 2

= class, where 1 = CRM and 2 = RM

#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Pb	Sn	Ti	V	Mg	N
2	BAS CRRM3/2	2.37	0.92	0.073	0.087	1.21	1.09	1.35	18.78	0.102	1.58	.	.	0.015	0.042	.	.
2	BAS NIRM1	2.05	6.72	0.055	0.005	3.15	0.20	11.80	0.246	.	.	.	.	.	.	0.021	.
2	BAS NIRM4	1.97	2.37	0.051	0.008	3.03	0.52	20.2	3.56	.	.	.	.	.	.	0.014	.
1	NCS HS11789	1.97	1.08	0.048	0.076	2.58	6.39	17.80	2.51	0.061	0.062	0.015	0.014	0.011	0.0093	.	.
2	BAS CRRM2/1	1.92	1.11	0.097	0.079	1.18	1.59	1.61	14.13	0.054	2.44	.	.	0.070	0.063	.	.
2	BAS CRRM1/1	1.83	1.45	0.132	0.099	1.53	2.01	2.03	11.18	0.117	3.05	.	.	0.096	0.040	.	.
2	BAS CRRM1/2	1.70	1.43	0.16	0.099	1.84	1.97	2.03	11.28	0.140	3.06	.	.	0.054	0.063	.	.
2	BAS NIRM8/2	1.45	1.58	0.105	0.014	5.61	0.23	35.3	2.47	.	0.77	.	.	.	.	0.033	.
#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Pb	Sn	Ti	V	Mg	N

SYLAB Ref	B	Ce	Co	Nb	W	Units	Other
BAS CRRM3/2	.	.	.	.	.	40 mm x 37 mm x 10 mm	
BAS NIRM1	.	0.018	.	.	.	40 mm x 37 mm x 10 mm	
BAS NIRM4	.	0.011	.	0.37	.	40 mm x 37 mm x 10 mm	
NCS HS11789	0.0008	.	(0.0075)	.	(0.0002)	31 mm Ø x 28 mm	As: 0.0076 Bi: 0.067
BAS CRRM2/1	.	.	.	.	.	40 mm x 37 mm x 10 mm	
BAS CRRM1/1	.	.	.	.	.	40 mm x 37 mm x 10 mm	last
BAS CRRM1/2	.	.	.	.	.	40 mm x 37 mm x 10 mm	
BAS NIRM8/2	.	0.013	.	.	.	48 mm x 42 mm x 12 mm	



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

SYLAB Ref	C	Si	Mn	P	S	Cu	Ni	Cr	Al	Co	Mo	Sn	Ti	V	W
CTIF FO19	4.04	1.05	1.05	0.032	0.057	.	.	.	.	.	.	.	.	.	.
CTIF FO12	3.71	1.86	0.44	0.038	0.004	0.77	.	.	0.008	.	.	0.011	.	.	.
CTIF FO8	3.6	1.04	0.37	0.107	0.021	0.215	0.30	0.30	.	.	0.005	0.05	0.055	0.014	.
CTIF FCR7	3.59	1.07	0.365	0.099	0.0427	0.704	0.947	33.65	.	.	2.62	.	.	.	.
CTIF FO6	3.49	0.55	0.715	0.87	0.106	0.120	0.128	0.45	.	.	0.202	0.039	0.080	0.110	.
CTIF FO10	3.5	0.67	1.05	0.20	0.101	0.114	0.118	0.38	.	.	0.20	.	0.1	0.08	.
CTIF NH3	3.47	0.85	0.175	0.36	0.024	0.031	2.53	1.76	.	.	0.73	.	.	.	.
CTIF FO11	3.45	1.57	0.685	0.052	0.103	0.211	0.235	0.34	.	(0.013)	0.225	0.066	0.078	0.113	.
CTIF FO18	3.43	1.24	0.590	1.34	0.136	0.049	0.140	0.170	.	.	0.179	0.046	0.057	0.102	.
CTIF NH7-1	3.43	0.95	0.63	0.035	0.022	0.105	5.53	9.02	.	.	.	.	.	.	.
CTIF FCR5	3.43	0.35	0.62	0.052	0.0175	1.02	2.69	28.5	.	.	3.27	.	.	.	.
CTIF FT2-1	3.39	1.415	0.78	0.045	0.095	0.01	0.070	0.030	.	.	.	.	0.100	0.405	.
CTIF NiMo1	3.22	2.585	0.200	0.0590	(0.0030)	0.376	2.165	0.0353	.	0.0205	0.457	0.0020	0.0190	0.0169	.
CTIF FL7	3.22	2.550	0.100	1.34	0.048	0.351	0.232	0.043	.	.	0.335	0.0291	0.0525	0.0796	.
CTIF FT3	3.2	1.55	0.345	0.063	0.051	0.015	0.092	0.685	.	.	.	.	0.2	0.016	.
CTIF NH7-2	3.2	1.20	0.91	0.034	0.0120	0.108	5.53	8.87	.	.	.	.	.	.	.
CTIF FO5	3.2	0.7	0.2	1.30	0.027	0.12	0.172	0.3	.	.	0.41	0.109	0.04	0.14	.
CTIF NH9	3.13	1.24	0.65	0.087	0.029	0.203	4.11	11.70	.	.	0.059	.	.	.	.
CTIF NR Cu1	3.12	1.465	0.172	0.090	0.99	4.95	18.02	0.994	(0.095)	.	.	.	.	.	.
CTIF FL6	3.1	1.4	0.6	0.012	0.18	0.079	1.03	0.167	.	0.028	0.50	0.005	0.15	0.033	.
CTIF FL10	3.1	1.3	0.85	0.323	0.066	0.104	0.10	(0.07)	(0.03)	.	0.0335	0.028	0.045	0.048	(0.02)
CTIF FPA 1	3.090	0.0300	0.100	0.0022	0.0009	0.0622	0.0450	0.0710	.	0.0097	0.0109	.	0.0010	0.0010	.
CTIF NR 8S	3.05	1.41	4.39	0.124	.	0.071	14.20	0.191	.	.	.	.	.	.	.
CTIF FO17	3.01	2.48	0.475	0.470	0.168	(0.006)	0.021	(0.016)	.	0.032	.	0.024	0.032	0.018	.
CTIF FAL 1	3.0	1.0	0.2	0.04	<0.001	0.2	0.06	0.04	2.1	.	0.015	.	0.01	.	.
CTIF NR 3L	2.99	3.05	0.72	0.088	0.052	0.26	21.58	2.97	.	.	.	.	.	.	.
CTIF NH1	2.98	1.35	0.90	0.060	0.105	1.99	1.38	0.83	.	.	1.45	.	.	.	.
CTIF NH8	2.98	0.80	0.57	0.052	0.076	0.065	8.16	5.03	.	.	0.125	.	.	.	.



SYLAB Ref	C	Si	Mn	P	S	Cu	Ni	Cr	Al	Co	Mo	Sn	Ti	V	W
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 FO4	2.81	1.51	0.64	0.58	0.009	0.31	0.32	0.17	.	.	0.095	0.013	0.075	0.049	.
CTIF FCR2	2.86	1.07	0.740	0.137	0.055	0.135	1.87	11.8	.	.	3.88	.	.	.	.
CTIF FL5	2.8	2.3	0.4	0.02	(0.005)	0.5	0.05	0.35	.	0.010	0.01	0.07	0.01	0.01	.
CTIF FCR Ni3	2.74	0.69	0.47	0.036	0.011	.	11.05	31.65	.	.	.	.	.	.	.
CTIF NH6	2.70	2.28	0.355	0.066	0.036	0.115	7.06	6.60	.	.	0.11	.	.	.	.
CTIF FO9	2.7	1.5	0.7	0.02	0.015	0.31	0.355	0.18	.	.	0.13	0.144	0.017	0.022	.
CTIF FL4	2.6	2.91	0.5	0.288	0.137	0.0168	0.061	0.45	.	.	0.090	0.011	0.0296	0.116	.
CTIF NR 1S	2.58	3.02	1.54	0.19	0.0015	0.11	20.60	2.00	.	.	.	.	.	.	.
CTIF NR 1L	2.50	3.00	1.34	0.125	0.10	0.49	25.87	1.74	.	.	.	.	.	.	.
CTIF NH2	2.50	1.81	1.04	0.047	0.058	1.02	1.78	1.26	.	.	1.01	.	.	.	.
CTIF NR Cu2	2.48	2.07	1.078	0.113	0.049	6.50	15.85	2.05	.	.	.	.	.	.	.
CTIF NR 4S	2.47	4.87	1.71	0.145	.	0.63	18.30	1.50	.	.	.	.	.	.	.
CTIF FCR4	2.47	1.40	2.05	0.097	0.066	1.32	0.571	24.2	.	.	2.16	.	.	.	.
CTIF FCR1	2.46	0.48	0.63	0.019	0.007	0.031	1.30	18.71	.	.	1.41	.	.	.	.
CTIF FO7	2.45	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 FL3	2.3	2.1	0.27	0.729	(0.013)	0.102	0.553	0.107	.	.	0.106	0.111	0.05	0.049	.
CTIF NR 4G	2.24	5.60	1.72	0.11	(0.002)	0.64	21.30	1.40	.	.	.	.	.	.	.
CTIF NR 2G	2.25	1.47	0.380	0.0476	(0.003)	0.232	36.34	0.395	.	.	.	.	.	.	.
CTIF FL2	2.18	3.61	0.0400	0.049	0.082	0.0497	0.0238	0.440	(0.006)	0.0263	(0.004)	0.140	0.0750	0.201	.
CTIF FL1	2.1	3.2	0.80	0.118	0.0765	0.0195	0.245	0.06	.	(0.022)	0.038	0.305	0.020	0.015	.
CTIF FCR Ni2	2.02	1.50	0.61	0.185	0.024	.	13.05	29.00	.	.	.	.	.	.	.



SYLAB Ref	C	Si	Mn	P	S	Cu	Ni	Cr	Al	Co	Mo	Sn	Ti	V	W
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	.	.	.	.	.	.	.

CAST IRON MUSHROOMS - CONTINUED FROM THE PREVIOUS PAGE

SYLAB Ref	As	B	Bs	Bi	Ce	N	Nb	Pb	Sb	Te	Zn
CTIF FO19	.	.	.	.	.	.	.	.	.	0.0005	.
CTIF FO12	.	.	.	.	.	.	.	.	.	.	.
CTIF FO8	.	.	.	.	.	.	.	.	.	.	.
CTIF FCR7	.	.	.	.	.	.	.	.	.	.	.
CTIF FO6	.	.	.	.	.	.	.	.	.	.	.
CTIF FO10	.	.	.	.	.	.	.	.	.	.	.
CTIF NH3	.	.	.	.	.	.	.	.	.	.	.
CTIF FO11	.	.	.	.	.	.	.	.	.	.	.
CTIF FO18	.	.	.	.	.	0.0040	.	.	.	.	.
CTIF NH7-1	.	.	.	.	.	.	.	.	.	.	.
CTIF FCR5	.	.	.	.	.	.	.	.	.	.	.
CTIF FT2-1	.	.	.	.	.	.	.	.	.	.	.
CTIF NiMo1	.	.	.	.	.	.	.	.	.	.	.
CTIF FL7	(0.0266)(0.010)	.	.	(0.010)	.	0.0035	.	.	.	.	.
CTIF FT3	.	.	.	.	.	.	.	.	.	.	.
CTIF NH7-2	.	.	.	.	.	.	.	.	.	.	.
CTIF FO5	.	.	.	.	.	.	.	.	.	.	.
CTIF NH9	.	.	.	.	.	.	.	.	.	.	.
CTIF NR Cu1	.	.	.	.	.	.	.	.	.	.	.



SYLAB Ref	As	B	Bs	Bi	Ce	N	Nb	Pb	Sb	Te	Zn
CTIF FL6	.	0.008	.	.	.	.	.	.	.	.	.
CTIF FL10	(0.018)	(0.022)	.	(0.012)	(0.004)	.	.	(0.002)	(0.032)	(0.001)	(0.029)
CTIF FPA 1	0.0109	.	.	.	.	0.0125	.	.	.	.	.
CTIF NR 8S	.	.	.	.	.	.	.	.	.	.	.
CTIF FO17	.	.	.	.	.	.	.	.	.	.	.
CTIF FAL 1	.	.	.	.	.	.	.	.	.	.	.
CTIF NR 3L	.	.	.	.	.	.	.	.	.	.	.
CTIF NH1	.	.	.	.	.	.	.	.	.	.	.
CTIF NH8	.	.	.	.	.	.	.	.	.	.	.
CTIF NR 3S	.	.	.	.	.	.	.	.	.	.	.
CTIF FT1	.	.	.	.	.	.	.	.	.	.	.
CTIF NR 8L	.	.	.	.	.	.	.	.	.	.	.
CTIF NH4	.	.	.	.	.	.	.	.	.	.	.
CTIF FO4	.	.	.	.	.	.	.	.	.	.	last of stock
CTIF FCR2	.	.	.	.	.	.	.	.	.	.	.
CTIF FL5	.	(0.002)	.	(0.0005)	.	.	.	.	.	.	.
CTIF FCR Ni3	.	.	.	.	.	.	.	.	.	.	.
CTIF NH6	.	.	.	.	.	.	.	.	.	.	.
CTIF FO9	.	.	.	.	.	.	.	.	.	.	.
CTIF FL4	(0.05)	.	.	(0.003)	.	0.007	.	.	.	.	.
CTIF NR 1S	.	.	.	.	.	.	.	.	.	.	.
CTIF NR 1L	.	.	.	.	.	.	.	.	.	.	.
CTIF NH2	.	.	.	.	.	.	.	.	.	.	.
CTIF NR Cu2	.	.	.	.	.	(0.0079)	.	.	.	.	.
CTIF NR 4S	.	.	.	.	.	.	.	.	.	.	.
CTIF FCR4	.	.	.	.	.	.	.	.	.	.	.
CTIF FCR1	.	.	.	.	.	.	.	.	.	.	.
CTIF FO7	.	.	.	.	.	.	.	.	.	.	.
CTIF NR 4L	.	.	.	.	.	.	.	.	.	.	.



SYLAB Ref	As	B	Bs	Bi	Ce	N	Nb	Pb	Sb	Te	Zn
CTIF NR 2S	.	.	.	.	.	.	.	.	.	.	.
CTIF NH5	.	.	.	.	.	.	.	.	.	.	.
CTIF FL3	.	.	.	.	.	0.008	.	.	.	.	.
CTIF NR 4G	.	.	.	.	.	.	.	.	.	.	.
CTIF NR 2G	.	.	.	.	.	.	0.27	.	.	.	.
CTIF FL2	.	.	.	(0.0135)	.	.	.	.	.	.	.
CTIF FL1	.	.	.	.	.	.	.	.	.	.	.
CTIF FCR Ni2	.	.	.	.	.	.	.	.	.	.	.
CTIF NR Cu3	.	.	.	.	.	.	.	.	.	.	.
CTIF NR 6S	.	.	.	.	.	.	.	.	.	.	.
CTIF NR 5L	.	.	.	.	.	.	.	.	.	.	.
CTIF NR 6L	.	.	.	.	.	.	.	.	.	.	.
CTIF NR 5S	.	.	.	.	.	.	.	.	.	.	.
CTIF FCR6	.	.	.	.	.	.	.	.	.	.	.
CTIF FCR Ni1	.	.	.	.	.	.	.	.	.	.	.

CARBON STEEL

= class, where 1 = CRM and 2 = RM

* Provisional Analysis

#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	V	W
1	BS 54J	0.78	0.77	0.0090	0.0108	0.552	0.080	0.037	0.177	0.0021	0.0042	0.0138	0.0060	0.0014	0.0024
1	BS 1040 *	0.40	0.79	0.01	0.033	0.23	0.24	0.07	0.12	0.002	0.007	0.02	0.01	0.03	<0.005
1	BS 1030A	0.34	0.763	0.0059	0.016	0.28	0.189	0.141	0.112	0.0021	0.0061	0.029	0.0082	0.0261	(0.0011)
1	SS 452/1	0.323	1.30	0.035	0.017	0.055	0.22	0.19	0.067	.	.	0.054	.	.	0.054
1	BS 1026A	0.270	0.76	0.0064	0.021	0.180	0.094	0.081	0.123	0.0091	(0.005)	0.053	0.0100	0.0257	0.0009
2	BS 57F	0.196	0.554	0.009	0.027	0.202	0.197	0.070	0.120	(0.002)	0.007	0.018	0.0077	0.063	.
2	BS 2971	0.187	1.01	0.015	0.024	0.237	0.065	0.111	0.152	0.022	.	0.040	0.0084	(0.002)	.
1	12X 10180D	0.179	0.807	0.014	0.025	0.286	0.066	0.053	0.0251	(0.003)	0.007	0.0026	0.007	.	.
1	BS XCAS	0.024	0.471	0.008	0.0064	0.339	0.020	0.031	0.035	(0.027)	0.0086	0.0069	0.0055	0.020	(0.006)
1	BS XCCS-2	0.021	0.58	0.0055	0.0059	0.40	0.047	0.099	0.039	0.073	0.016	0.013	0.0139	0.018	0.020



SYLAB Ref	As	B	Fe	Nb	O	Sb	Sn	Ti	Alloy	Units	Others
BS 54J	0.0025	<0.0005	97.6	(0.002)		(0.0011)(0.0006)(0.005)		0.0020	1080	38 mm Ø x ~7 or 19+ mm	17025
BS 1040 *	0.005	0.0003	[98.0]	<0.005	<0.05	0.002	0.009	<0.005	1040	28 mm Ø x ~7 or 19+ mm	
BS 1030A	(0.005)	(0.0003)	98.0	(0.0007)	0.0047	0.0014	(0.015)	0.0014	1030	38 mm Ø x ~7 or 19+ mm	17025 Zn:0.0033
SS 452/1	0.015	.	.	.	.	.	0.094	0.031		38 mm Ø x 19 mm	
BS 1026A	(0.005)	(0.0003)	98.3	0.0008	0.0042	0.0013	0.0068	(0.0006)	1026	38 mm Ø x ~7 or 19+ mm	17025 Ca:0.0025
BS 57F	(0.006)	.	Ca:(0.0003)	.	(0.006)	.	0.008	.	1020	44 mm Ø X 17 or 19+ mm	
BS 2971	0.003	.	.	.	.	.	(0.005)	.	LF-2	44 mm Ø X ~7 or 19+ mm	
12X 10180D	0.0068	.	.	.	.	.	0.0033	.	1018	~40 mm Ø x ~15 mm	
BS XCAS	0.0016	(0.0002)	99.0	(0.0015)	0.008	0.0006	0.0017	0.0010	1008	38 mm Ø x 30 mm	17025
BS XCCS-2	(0.004)	0.021	98.6	(0.003)	0.0066	(0.0016)(0.0015)		0.011	1009 + Al	~37 mm D x ~30 mm	17025 Ca: 0.0032

LOW ALLOY AND TOOL STEEL, CHART 1 of 2

= class, where 1 = CRM and 2 = RM

* Provisional Analysis

#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	V	W
1	IARM Fe15V-18	3.51	0.39	0.022	0.010	0.89	0.084	0.123	5.5	.	0.018	1.24	.	15.6	0.080
2	BS 37D	1.54	0.28	0.021	0.015	0.29	0.063	0.21	11.07	.	0.07	1.09	0.016	0.80	0.16
1	BS E52100	0.99	0.371	0.011	0.004	0.270	0.090	0.066	1.54	0.019	0.0067	0.0209	0.0057	0.0046	(0.0015)
2	BS 36C	0.96	0.46	0.023	0.027	0.31	0.18	0.19	5.01	.	0.03	0.99	.	0.11	(0.04)
2	BS TM1	0.86	0.23	0.007	0.012	0.46	0.054	0.057	3.72	.	0.45	8.4	.	1.05	1.7
1	BS 33F	0.569	0.295	0.0134	0.0009	0.76	0.039	0.211	1.31	0.019	0.017	0.202	0.0124	0.25	2.28
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
1	BS TS-7A	0.527	0.74	0.013	0.016	0.84	0.127	(0.031)	3.35	0.061	(0.005)	1.62	0.0124	0.265	(0.0014)
1	BS D-6A	0.47	0.78	0.0076	0.0010	0.232	0.136	0.60	0.99	0.038	0.013	1.00	0.0031	0.123	0.0019
1	12X 41400B	0.452	0.764	0.0095	0.041	0.32	0.161	0.156	0.999	0.0137	.	0.177	0.0124	.	.
1	BS 4140C	0.43	0.922	0.010	0.026	0.29	0.260	0.131	0.94	0.0215	0.0078	0.169	0.0064	0.0026	(0.003)
2	BS TH11	0.423	0.31	0.016	0.005	0.88	0.041	0.11	5.04	.	(0.008)	1.27	.	0.46	(0.01)
1	BS 300A **	0.416	0.716	0.0049	0.0008	1.71	0.118	1.87	0.798	0.098	0.0087	0.38	0.0023	0.070	<0.01
2	BS 34D	0.395	0.38	0.017	0.005	1.06	0.049	0.10	5.15	.	0.031	1.24	.	0.94	0.10
1	BS 8740	0.39	0.86	0.011	0.023	0.25	0.16	0.55	0.49	0.037	0.0086	0.27	0.0073	0.0024	0.0023
2	BS 68C	0.38	0.60	0.018	0.008	0.305	0.178	0.166	1.77	1.06	0.011	0.36	0.0045	0.007	.



#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	V	W
2	BS TH12	0.372	0.40	0.020	0.005	0.92	0.064	0.16	5.02	.	0.07	1.41	.	0.62	1.06
1	BS 4330MOD	0.316	0.92	0.0052	0.0010	0.269	0.105	1.83	0.848	0.031	0.034	0.478	0.0031	0.083	(0.001)
2	BS 9325	0.25	0.91	0.008	0.007	0.32	0.13	3.29	1.48	0.030	0.010	0.31	0.0089	0.004	.
1	BS 8822A *	0.21	0.85	0.021	0.033	0.28	0.032	0.57	0.56	0.011	0.005	0.38	0.008	0.003	<0.05
1	BS 4820B	0.199	0.67	0.0081	0.0113	0.269	0.221	3.32	0.116	0.038	0.012	0.251	0.0075	0.0016	(0.003)
2	BS 1931	0.194	0.84	0.007	0.018	0.235	0.116	0.42	0.50	0.021	0.012	0.168	0.0079	0.002	.
2	BS 61C	0.187	0.76	0.014	0.026	0.21	0.030	0.55	0.505	0.033	0.012	0.169	0.0050	<0.002	.
2	PV 102/1	0.186	1.226	0.024	0.018	0.184	0.109	0.140	0.995	.	.	0.030	.	.	.
2	BS 8620A	0.184	0.80	0.008	0.079	0.21	0.15	0.44	0.48	0.016	0.010	0.16	0.0107	0.004	.
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	0.003	.
2	BS 58D	0.127	0.45	0.010	0.005	0.32	0.156	3.02	1.35	0.042	0.009	0.14	0.0147	0.005	.
1	BS 3310	0.104	0.54	0.0092	0.0144	0.257	0.199	3.49	1.55	0.035	0.0096	(0.052)	0.0075	0.0029	(0.003)
2	HRT FE2003-H	0.104	0.46	0.013	0.002	0.43	0.05	0.26	8.66	(0.004)	0.013	0.93	.	0.217	.

SYLAB Ref	As	B	Fe	Nb	O	Sb	Sn	Ti	Alloy	Units	Others
BS 37D	.	.	.	.	0.0031	.	0.004	.	D-2	37 mm Ø x ~7 or 19+ mm	
BS E52100	0.0033	Ca:0.0006	96.6	(0.0010)	0.0009	0.0011	0.0049	(0.0010)	E52100	38 mm Ø x ~7 or 19+ mm	17025
BS 36C	.	.	.	.	.	.	.	.	A-2	38 mm Ø x ~7 or 19+ mm	
BS TM1	.	.	.	.	.	.	.	.	M-1	41 mm Ø x ~7 or 19+ mm	
BS 33F	(0.003)	(0.0007)	94.0	(0.002)	0.0024	(0.01)	(0.004)	(0.002)	S-1 MOD	38 mm Ø x ~7 to 19+ mm	17025
BS TS-7	.	.	.	.	.	.	.	.	S-7	38 mm Ø x ~7 or 19+ mm	
BS TS-7A	(0.005)	0.0021	92.3	<0.01	(0.005)	<0.01	(0.004)	(0.003)	S-7	36 mm Ø x 25 mm	17025 Ca: 0.0004
BS D-6A	0.0101	0.0004	95.6	<0.01	0.0009	0.0014	(0.009)	0.0024	D-6	38 mm Ø x ~7 or 19+ mm	17025 Ca: 0.0011
12X 41400B	0.015	.	.	.	.	.	0.0099	.	4140	~38 mm Ø x ~20 mm	Zn:0.0012
BS 4140C	0.0052	(0.0007)	96.8	0.0019	0.0011	0.0021	0.0095	0.0009	4140	38 mm Ø x ~7 or 19+ mm	17025 Ca:0.0010
BS TH11	.	.	.	.	.	.	.	.	H-11	38 mm Ø x ~7 or 19+ mm	
BS 300A **	0.0029	(0.00032)	93.8	(0.002)	<0.01	0.0011	0.0065	0.0095	300M	38 mm Ø x ~7 or 19+ mm	17025
BS 34D	.	.	.	.	.	.	.	.	H-13	41 mm Ø x ~7 or 19+ mm	
BS 8740	0.0051	0.0003	96.91	(0.0007)	(0.001)	0.0017	0.008	0.0012	8740	38 mm Ø x ~7 or 19+ mm	17025
BS 68C	(0.004)	.	.	.	.	.	0.008	.	P-20 + Al	37 mm Ø x ~7 or 19+ mm	
BS TH12	.	.	.	.	.	.	.	.	H-12	38 mm Ø x ~7 or 19+ mm	



SYLAB Ref	As	B	Fe	Nb	O	Sb	Sn	Ti	Alloy	Units	Others
BS 4330MOD	0.0038	(0.0009)	95.1	0.007	(0.001)	(0.0007)	0.0062	0.0027	4330MOD	44 mm Ø x ~7 or 19+ mm	17025 Zr:0.0016
BS 9325	0.004	Ca:0.0049	.	.	0.0010	.	0.009	.	9325	38 mm Ø x ~7 mm last	
IARM 169B	.	0.0003	.	(0.004)	.	.	(0.002)	0.23	CLA6	31 mm Ø x 2 or 18 mm	
BS 8822A *	<0.05	0.0005	[97]	0.002	<0.05	0.002	0.004	0.002	8822	37 mm Ø x 25 mm	Ta: 0.007
BS 4820B	0.0055	Ca:0.0004	94.8	0.0022	(0.0015)	0.0028	0.0098	0.0013	4820	38 mm Ø x ~7 to 19+ mm	17025
BS 1931	0.007	.	.	.	(0.0052)	.	0.007	.	8620	41 mm Ø x ~7 or 19+ mm	
BS 61C	0.0029	.	Ca:(0.0004)(<0.002)	.	.	0.0004	0.0014	.	8620	41 mm Ø x ~7 or 19+ mm	
BS 8620A	0.007	Bi:0.073	.	.	(0.004)	.	0.009	(0.002)	8620 + Bi	38 mm Ø x ~7 or 19+ mm	
BS 1982	0.007	.	.	(0.003)	0.0017	0.002	0.013	(0.001)	F-22	39 mm Ø x ~7 or 19+ mm	
BS 58D	.	.	.	.	.	.	0.012	.	9310	41 mm Ø x ~7 or 19+ mm	
BS 3310	0.0058	(0.0008)	93.7	(0.0009)	(0.0008)	0.0019	0.0103	0.0010	3310	44 mm Ø x ~7 or 19+ mm	17025 Ta:0.007
HRT FE2003-H	.	0.004	.	0.064	.	.	.	.	F-91	40 mm Ø x 20 mm	

** BS 300A also contains Ca: 0.0008 Pb: <0.0005 Ta: 0.0022 Zr: (0.002)

LOW ALLOY AND TOOL STEEL, CHART 2 of 2

= class, where 1 = CRM and 2 = RM

* Provisional Analysis

#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	V	W
2	HRT FE2019-H	1.54	0.39	0.025	(0.003)	0.51	0.08	0.14	11.89	0.015	.	0.86	.	0.80	.
1	ECRM 268-1D	1.134	0.293	0.0209	0.0154	0.373	0.123	0.143	4.57	.	0.0290	3.20	2.03	8.47	3.70
1	12X LA5D	0.681	0.855	0.040	0.016	0.53	0.107	0.409	0.291	0.177	0.151	0.206	.	0.603	(0.004)
1	12X LA4C	0.657	0.374	0.050	0.0258	0.482	0.265	0.485	0.526	0.183	0.099	0.405	0.0116	0.372	0.091
1	NCS HS13752	0.51	0.99	0.027	0.011	0.21	.	.	0.67	.	.	0.27	.	0.09	.
1	12X 15260X	0.404	1.67	0.034	0.086	0.390	0.119	0.499	2.48	0.57	0.085	0.093	.	0.417	.
1	SS 214/2	0.39	1.61	0.032	0.043	0.18	0.21	0.15	0.09	.	.	0.26	.	.	.
2	HRT FE2021-N	0.33	0.31	0.0178	0.0014	0.28	0.070	0.193	2.81	0.014	0.011	2.7	0.007	0.52	0.027
1	SS 408/1	0.285	0.51	0.037	0.028	0.23	0.66	4.45	0.102	.	.	0.09	.	0.031	.
1	BS 1763 *	0.27	1.50	0.017	0.025	0.68	0.18	0.53	0.56	0.052	0.12	0.55	<0.05	0.29	0.023
1	BS 9325B *	0.25	0.50	0.031	0.007	0.38	0.16	3.1	1.2	0.028	0.007	0.20	<0.05	0.008	0.003
1	IRSID 1658	0.180	0.618	0.014	0.032	0.160	0.345	0.241	0.147	0.029	.	0.046	.	(0.002)	.
2	HRT FE2019-N	0.17	1.27	0.015	(0.001)	0.30	0.03	0.33	0.75	0.068	(0.003)	0.40	0.0040	(0.003)	.



#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	V	W
1	12X 12746V	0.048	1.19	0.034	0.064	0.156	0.646	0.226	0.374	0.459	0.142	0.658	0.0208	0.105	

SYLAB Ref	As	B	Fe	Nb	O	Sb	Sn	Ti	Units	Others
HRT FE2019-H	.	.	.	0.071	.	.	.	0.012	40 mm Ø x 20 mm	
ECRM 268-1D	0.0062	0.0009	.	.	.	0.0017	0.0078	.	38 mm Ø x 25 mm	
12X LA5D	0.0101	.	.	0.0039	.	.	0.0142	0.080	~40 mm Ø x ~15 mm	Zr:0.0013
12X LA4C	0.018	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm	Zn:0.006
NCS HS13752	.	.	.	.	.	.	.	0.006	38 mm Ø x 38 mm	
12X 15260X	0.044	.	.	0.183	.	Pb:0.0012	0.0021	0.0064	~40 mm Ø x ~15 mm	Zr:0.0054
SS 214/2	.	.	.	.	.	.	.	.	42 mm Ø x 19 mm	
HRT FE2021-N	0.004	0.0006	Ce:0.0011	0.007	.	0.001	0.004	0.001	36 mm Ø x 20 mm	Zn:0.002 Zr:0.0012
SS 408/1	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm	
BS 1763 *	0.072	0.003	[94.6]	0.14	<0.05	<0.05	0.015	0.31	37 mm Ø x 19 or 20 mm	Zr:0.027
BS 9325B *	0.004	Ca:0.003	[94.0]	0.002	Pb:0.002	0.003	0.004	0.002	38 mm Ø x 30 mm	Ta:0.004 Zr:0.001
IRSID 1658	0.034	.	.	.	.	.	0.022	(0.002)	40 mm Ø x 30 mm	
HRT FE2019-N	.	0.0016	.	0.029	.	.	.	0.004	40 mm x 40 mm x 20 mm	Ca:0.0014
12X 12746V	0.051	.	.	.	.	.	0.264	0.088	~40 mm Ø x ~15mm	

SILICON STEEL

= class, where 1 = CRM and 2 = RM

Class	SYLAB Ref	Si	C	Mn	P	S	Cu	Ni	Cr	Al	Co	Mo	N	V	W
1	ECRM 191-3C	3.226	0.0027	0.153	0.0097	0.0005	0.0097	0.0124	0.0242	0.81	.	0.00127	0.00105	0.00043	.
1	SS 405/1	1.71	0.032	1.28	0.018	0.069	0.013	0.22	0.15	.	.	(0.002)	.	0.28	.
1	SS 409/1	1.46	0.082	0.44	0.025	0.021	0.048	3.06	0.94	.	0.014	0.65	.	0.09	.

SYLAB Ref	As	B	Nb	Pb	Sb	Sn	Ti	Zr	Units	Others
ECRM 191-3C	0.0014	0.00024	.	.	.	0.0013	0.0020	.	~30 mm Ø x ~39 mm	Mg:0.0036
SS 405/1	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm	
SS 409/1	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm	



LOW NICKEL STAINLESS STEEL

= class, where 1 = CRM and 2 = RM

#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	V	W
2	BS 93E	1.02	0.52	0.022	0.0010	0.90	0.12	0.35	17.33	0.009	0.048	0.50	0.0359	0.24	0.11
2	BS 98	0.309	0.48	0.019	0.0014	0.72	0.098	0.21	13.35	0.003	0.020	0.034	0.0181	0.075	0.009
2	BS 97	0.216	0.71	0.021	0.0004	0.39	0.066	0.76	11.82	0.018	0.041	1.05	0.030	0.21	0.95
1	BS 183B	0.181	0.344	0.018	0.0042	0.41	0.074	1.96	12.45	0.0009	0.032	0.33	0.044	0.165	3.5
1	13X 12548N	0.175	0.510	0.023	0.189	0.193	0.264	1.10	12.70	(0.02)	0.388	1.42	0.102	0.025	0.038
1	BS 183C	0.173	0.368	0.015	0.0040	0.427	0.060	1.87	12.72	0.0020	0.027	0.189	0.039	0.109	2.83
1	BS 431A	0.159	0.53	0.019	0.0036	0.31	0.111	2.21	15.78	(0.0012)	0.041	0.172	0.058	0.079	0.021
2	BS 91E	0.066	0.42	0.017	0.002	0.52	0.05	0.17	16.58	(0.002)	0.02	0.035	0.032	0.09	0.01
1	13X 41500A	0.038	0.596	0.021	0.0101	0.402	0.129	3.52	13.00	.	0.099	0.504	0.0504	0.091	.
1	13X 41008B	0.034	0.684	0.013	0.0070	0.761	0.267	0.338	12.36	0.028	0.053	0.042	0.0088	0.061	.
1	13X 40800A	0.032	0.804	0.034	0.030	0.80	0.299	0.58	12.32	0.042	0.033	0.268	0.0054	0.034	0.005

SYLAB Ref	As	B	Fe	Nb	O	Sb	Sn	Ti	Alloy	Units		
BS 93E	.	.	.	0.005	0.0040	.	0.003	0.007	440C	41 mm Ø x ~7 or 19+ mm		
BS 98	(0.003)	(0.0002)	.	0.003	0.0038	.	0.006	0.002	420	38 mm Ø x ~7 mm	Last of stock	
BS 97	.	.	.	0.007	.	.	(0.003)	(0.002)	422	35 mm Ø x ~7 or 19+ mm		
BS 183B	(0.005)	(0.0007)	80.4	(0.0075)	(0.0054)	0.0009	0.0046	(0.0016))	Greek Ascology	38 mm Ø x ~7 or 19+ mm	17025	
13X 12548N	(0.003)	.	.	0.49	.	0.019	0.0064	0.0027	Resulfurized	~40 mm Ø x ~15 mm		
BS 183C	0.0041	(0.0008)	81.1	0.0054	(0.005)	0.0007	0.0039	(0.002)	Greek Ascology	38 mm Ø x ~7 or 19+ mm	17025	Ca: 0.0006
BS 431A	0.0033	0.0002	80.5	0.0062	0.0067	0.0012	0.0047	0.0010	431	38 mm Ø x ~7 or 19+ mm	17025	Zr: 0.0012
BS 91E	.	.	.	(0.004)	.	.	0.004	(0.002)	430	41 mm Ø x ~7 or 19+ mm		
13X 41500A	.	.	.	0.040	.	.	.	0.0012	415	~40 mm Ø x ~15 mm		
13X 41008B	.	.	.	0.019	.	.	0.0081	.	410	~40 mm Ø x ~15 mm		Zr:0.047
13X 40800A	0.004	.	.	0.020	.	(0.002)	0.0028	0.84	408	~40 mm Ø x ~ 15 mm		



STAINLESS AND HIGH ALLOY STEEL

= class, where 1 = CRM and 2 = RM

#	SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	V	W
1	BS 309	0.062	1.61	0.028	0.0011	0.24	0.349	12.16	22.40	(0.0025)	0.200	0.193	0.073	0.075	(0.031)
1	BS 347C	0.051	1.67	0.022	0.022	0.677	0.110	10.08	17.27	(0.003)	0.072	0.27	0.039	0.097	0.013
2	HRT FE2021-H	0.041	1.19	0.021	0.002	0.34	0.17	12.7	15.6	0.007	0.044	1.11	0.088	0.59	(0.025)
1	13X 33425A	0.039	0.997	0.028	0.0052	0.85	0.204	20.90	22.3	0.017	0.092	2.52	0.0106	(0.014)	(0.006)
2	BS 95A	0.035	0.58	0.026	0.004	0.46	1.50	6.42	14.72	0.002	0.081	0.73	0.0255	0.052	0.02
1	13X 32180A	0.031	2.11	0.007	0.0093	0.485	0.49	10.16	18.92	0.043	0.040	0.245	0.0067	0.026	0.039
1	BS 2507	0.026	0.79	0.023	(0.0005)	0.32	0.222	6.94	25.3	(0.004)	0.040	3.75	0.273	0.064	0.074
2	TL 2001D	0.0244	0.679	0.022	0.0006	0.27	0.612	7.5	25.58	.	0.046	3.49	0.279	0.079	0.57
1	BS 186B	0.022	0.288	(0.0027)	0.0016	0.254	0.057	36.1	0.11	0.0080	0.041	0.025	0.0033	(0.002)	(0.007)
1	BS 160B	0.022	0.27	0.0033	0.0032	0.112	0.059	29.13	0.06	(0.005)	17.24	0.047	0.0006	0.0039	(0.011)
2	TL 2003D	0.0193	1.068	0.0274	0.0169	0.5020	0.2773	9.231	18.25	.	0.1270	0.2871	0.0556	0.0711	0.0150
1	BS 254	0.019	0.95	0.026	0.0009	0.312	0.612	18.47	20.2	<0.01	0.08	6.07	0.210	0.062	(0.02)
1	BS 179A	0.017	1.04	0.021	0.001	0.44	1.94	5.84	25.45	(0.009)	0.58	3.24	0.184	0.070	(0.2)
2	TL 2002D	0.0149	1.30	0.022	0.0206	0.53	0.438	11.0	16.7	.	0.087	2.05	0.0341	0.068	.
1	ECRM 298-2D	0.0140	0.788	0.0210	0.0006	0.331	0.105	6.87	24.91	0.0148	0.0482	3.78	0.277	0.070	0.0094
1	SS 477	0.0102	1.623	0.0209	0.00039	0.473	1.340	25.07	20.38	0.0303	0.0875	4.23	0.0562	0.0527	.
2	BS 96A	0.009	0.04	0.007	0.004	0.06	2.07	8.38	11.62	0.08	0.03	0.021	.	0.07	.
1	BS 161B	0.0031	0.010	(0.004)	0.0007	0.0107	0.010	18.56	0.034	0.073	9.28	4.87	0.0011	0.0011	0.010

SYLAB Ref	As	B	Fe	Nb	O	Sb	Sn	Ti	Alloy	Units
BS 309	0.0048	(0.0004)	62.6	0.0090	0.0027	(0.0017)	0.0089	0.0020	309, 309H	38 mm Ø x ~7 or 19+ mm 17025 Ca: 0.0010
BS 347C	(0.003)	0.0018	69.1	0.58	0.0053	(0.002)	0.0034	(0.004)	347	44 mm Ø x ~7 or 19+ mm 17025
HRT FE2021-H	0.004	0.0021	.	0.57	.	0.003	0.005	0.004	X8CrNiMoVNb16-13	50 mm Ø x 20 mm
13X 33425A	(0.0021)	.	.	0.047	.	(0.002)	0.0106	0.178		~40 mm Ø x ~15 mm
BS 95A	.	0.0010	.	0.55	.	.	0.008	(0.003)	450	38 mm Ø x ~7 or 19+ mm
13X 32180A	(0.003)	(0.0011)	.	(0.0021)	.	(0.0011)	0.0116	0.81	ER321	~40 mm Ø x ~ 15 mm
BS 2507	0.0046	0.0021	62.3	(0.011)	0.0038	0.0008	0.0050	0.0028	2507	38 mm Ø x ~7 or 19+ mm 17025
TL 2001D	.	.	.	0.024	.	.	.	.	Super Duplex	40 mm Ø x 20 mm



SYLAB Ref	As	B	Fe	Nb	O	Sb	Sn	Ti	Alloy	Units	
BS 186B	0.0022	(0.0006)	63.0	(0.002)	0.0011	(0.0007)	0.0025	0.0028	Invar 36	43 mm Ø x ~7 or 19+ mm	17025 Zr: 0.0020
BS 160B	<0.005	0.0003	53.0	0.0015	0.0010	(0.0009)	0.0020	(0.003)	Kovar	38 mm Ø x ~7 or 19+ mm	17025 Ca: 0.0004
TL 2003D	.	.	.	0.0150	.	.	.	.	304 L	40 mm Ø x 20 mm	
BS 254	(0.006)	0.0018	52.9	(0.03)	0.0038	0.0014	0.0063	0.0019	254 SMO	38 mm Ø x ~7 or 19+ mm	17025 Zr: 0.0026
BS 179A	(0.003)	(0.001)	.	0.030	.	.	0.005	0.006	Ferralium 255	31 mm Ø x ~7 or 19+ mm	
TL 2002D	.	.	.	.	.	.	.	0.0098	316 MOD	40 mm Ø x 20 mm	
ECRM 298-2D	0.0028	0.0024	.	0.0011	.	0.0006	0.0029	0.0023	1.4410	38 mm Ø x 25 mm	
SS 477	0.00399	0.00198	.	Mg:0.00053	.	0.00078	0.00453	.		38 mm Ø x 19 mm	
BS 96A	.	(0.0017)	.	0.26	.	.	.	1.18	455	38 mm Ø x ~7 or 19+ mm	
BS 161B	.	0.0027	66.6	(0.0034)	0.0005	.	(0.0011)	0.67	Maraging 300	41 mm Ø x ~7 or 19+ mm	17025

CRM		CAST IRON													
SYLAB Ref	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Ce	La	Mg	Se	Te
NCS AH11112	3.95	0.511	0.055	0.014	2.30	0.487	0.141	0.251	0.014	.	.	.	0.032	.	.
NCS HS11799	3.95	0.511	0.055	0.014	2.30	0.487	0.141	0.251	0.014	.	0.012	0.0064	0.032	.	.
NCS HS11798	3.78	0.606	0.053	0.020	2.73	0.526	0.856	0.700	0.042	.	0.0097	0.0042	(0.034)	.	.
SCRM 660/11	3.62	0.444	0.137	0.115	1.74	.	.	.	.	.	.	.	.	.	.
NCS HS92744c	3.59	0.435	0.047	0.020	1.68	0.268	0.595	0.526	.	.	0.022	.	0.042	.	.
NCS HS92746a	3.59	0.226	0.046	0.012	2.25	0.263	0.501	0.097	0.014	.	.	.	0.029	.	.
SCRM 658/12	3.33	0.55	0.243	0.076	2.03	.	.	.	.	.	.	.	.	.	.
11X C7P	3.24	2.21	0.058	0.0081	0.604	0.072	0.0273	0.61	0.029	0.006	.	.	.	.	.
NCS AH11353	3.15	0.47	0.020	0.0006	2.30	0.029	0.59	0.025	0.023	0.015	.	.	0.029	.	.
BS CC-23	2.96	0.73	0.53	0.082	0.43	0.307	0.56	0.467	0.060	0.090	(0.0006)	(0.0008)	(0.0006)	.	(0.03)
CKD 242A	1.84	0.060	0.039	0.036	3.06	0.055	0.039	0.029	0.036	0.002	(0.00)	(0.00)	0.000	(0.000)	(0.08)