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CRM NICKEL SET

available in SET/5 only rods 6 mm Ø x 100 mm

Number	Co	Cu	Fe	Mg	Mn	Ni	Si
IMN 6-1	0.045	0.21	0.096	0.22	0.0063	Rem	0.0043
IMN 6-2	0.091	0.26	0.33	0.0061	0.18	Rem	0.0074
IMN 6-3	0.19	0.044	0.050	0.012	0.015	Rem	0.18
IMN 6-4	0.40	0.10	0.023	0.075	0.074	Rem	0.06
IMN 6-5	0.71	0.0094	0.011	0.0014	0.0018	Rem	0.0012

CRM ISO 17025 NICKEL

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

BS 200A: 38 mm Ø x 19+ mm

others: 38 mm Ø x 15 mm

Number	Al	As	B	Bi*	C	Ca	Co	Cr	Cu	Fe	Mg	Mn	Mo	N	Nb	Ni
BS 200-1	0.0048	0.0010	0.0033	.	0.0413	0.0024	0.089	0.0011	0.0077	0.046	0.0307	0.111	0.0004	(0.0002)	0.0004	99.60
BS 200A	0.0281	0.0015	0.0044	.	0.078	0.0003	0.0564	0.0006	0.0038	0.074	0.0131	0.151	0.0004	0.0004	0.0004	99.54
BS 200-3	0.0068	0.0015	0.0037	(0.2)	0.0145	0.0003	0.103	0.0091	0.108	0.138	0.0240	0.157	0.0004	(0.0002)	0.0004	99.4
BS 200-2	0.0041	0.0012	0.0031	.	0.050	0.0004	0.104	0.0094	0.053	0.115	0.0368	0.244	0.0005	0.0003	0.0009	99.31
BS 200-4	0.0057	0.0014	0.0037	.	0.107	0.00028	0.0911	0.132	0.0482	0.297	0.0312	0.310	0.0013	0.00031	0.0010	98.9

Number	O	P	Pb	S	Sb*	Si	Sn	Ta	Te*	Ti	V	W	Zn*	Zr
BS 200-1	0.0015	0.0009	0.0010	0.0011	(0.2)	0.037	(0.0001)	(0.0004)	.	0.0209	0.0008	0.00016	.	(0.0002)
BS 200A	0.0013	0.0007	(0.00005)	0.0037	(0.2)	0.0051	(0.0001)	(0.0003)	.	0.0427	0.0006	0.0005	.	(0.0004) also as XRF
BS 200-3	0.0026	0.0015	0.0008	0.0032	(0.4)	0.0110	0.0003	(0.0001)	(0.4)	0.0235	0.0009	(0.0004)	(2)	(0.0003)
BS 200-2	0.0025	0.0020	0.0006	0.0068	(0.4)	0.060	(0.0002)	(0.0002)	.	0.0197	0.0014	(0.0003)	.	(0.0003)
BS 200-4	0.0015	0.0023	0.00087	0.0076	0.4	0.101	0.0020	0.0003	.	0.0191	0.0024	0.00095	.	(0.0004)

NICKEL

= class, where 1 = CRM and 2 = RM

* center of IARM 189A has a few mm crack, not intended for XRF

31 mm Ø x 2 or 18 mm

#	Number	Ag	Al	As	Bi	C	Cd	Co	Cr	Cu	Fe	Mn	N	Ni	O
2	IARM 190A	0.00109	0.0050	0.0028	0.00111	0.0022	0.0005	0.0008	(0.0001)	0.0017	0.0099	0.00018	trace	Rem	.
2	IARM 189A *	0.00024	0.0044	0.00007	0.00026	0.0023	0.00008	0.00031	(0.0010)	0.00090	0.0038	0.00019	trace	Rem	.
2	IARM 188A	0.00011	0.0024	0.00007	0.00009	0.0022	0.00002	0.00017	(0.0006)	0.00018	0.0019	0.00023	trace	Rem	.
2	IARM 191A	0.00001	0.00015	0.0013	<0.00001	0.0014	<0.0001	0.0545	0.00021	0.00042	0.00079	0.00031	trace	Rem	.
2	IARM 187A	0.00001	0.0011	0.00001	<0.00001	0.0013	(<0.00001)	0.00010	(0.0003)	0.00022	0.0019	0.00030	trace	Rem	.

Number	P	Pb	S	Sb	Se	Si	Sn	Te	Ti	Tl	V	W	Zn	Zr
IARM 190A	0.0034	0.00093	0.00033	0.0011	0.00065	0.0028	0.00062	0.00089	(0.0006)	0.00058	.	.	0.00081	.
IARM 189A *	0.00037	0.00029	0.00018	0.00039	0.00021	0.0019	0.00022	0.00017	(0.0003)	0.00023	.	.	0.00028	.
IARM 188A	0.00014	0.00010	0.00018	0.00011	0.00007	0.0018	0.00011	0.00008	(0.0002)	(0.00009)	.	.	0.00023	.
IARM 191A	<0.00010	0.00003	0.00021	<0.00005	0.00019	(0.0005)	0.00004	<0.00001	(<0.0001)	<0.00002	.	.	0.00019	.
IARM 187A	<0.00010	0.000015	0.00019	<0.00005	<0.00001	(0.0018)	0.00004	<0.00001	(0.0003)	<0.00002	.	.	<0.00005	.

RM NICKEL

cast typical analysis 40 mm Ø x 15 mm

Number	Al	Co	Cr	Cu	Fe	Mg	Mn	Si	Ti
21X 17520H	0.04	0.48	0.10	0.09	0.25	0.06	0.18	0.20	0.08
21X 17521J	0.03	0.26	0.16	0.16	0.24	0.03	0.11	0.28	0.12

CRM Co/Cr NICKEL ALLOY TYPE IN 100

wrought analysis listed in mass %

Number	Co	Cr	Al	Mo	Ti	V	B	C	Zr	Units
SS 346A	(15)	(10)	(5.5)	(3)	(5)	(1)	.	(0.15)	.	38 mm Ø x 13 mm
SS 345	14.70	9.93	5.58	3.01	(5)	1.00	0.019	0.153	0.044	35 mm Ø x 13 mm

continued analysis listed in mg/kg

Number	Ag	As	Bi	Ca	Cd	Ga	In	Mg	Pb	Sb	Se	Sn	Te	Tl	Zn
SS 346A	42	51	10	(20)	0.4	(50)	(20)	130	22	45	6	93	9	(2)	29
SS 345	<0.2	(2)	<0.2	(<5)	<0.1	8	.	5	0.2	<2	<0.5	6	<0.2	<0.2	<0.5

CRM CHROMIUM NICKEL ALLOY

219X: ~40 mm Ø x ~15 mm VS: ~40 mm Ø x ~ 28 mm

Number	Cr	Al	C	Co	Cu	Fe	Mn	Mo	N	Nb	Ni	P	S	Si	Ti	V
219X 20500C	51.0	.	0.0212	0.0110	0.0101	1.515	0.299	0.0103	0.199	0.0117	45.46	0.0048	0.0137	1.288	.	W:0.0086
VS NG4/3	18.5	0.38	0.011	.	0.043	0.93	0.40	0.120	.	0.62	.	(0.004)	0.0017	0.38	0.86	0.019
VS NG3/3	17.8	0.116	0.009	.	0.094	1.86	0.28	0.100	.	(0.1)	.	(0.004)	0.0020	1.00	1.18	0.059
VS NG1/3	17.3	1.76	0.051	.	0.068	1.32	1.23	0.16	.	0.41	.	(0.004)	0.0014	0.25	0.31	0.46
VS NG5/3	17.3	0.93	0.013	.	0.243	2.10	0.23	0.36	.	(0.1)	.	(0.004)	0.0016	0.65	0.46	0.30
VS NG2/3	17.0	0.106	0.040	.	0.148	0.42	2.22	0.120	.	(0.1)	.	(0.004)	0.0021	(0.3)	1.84	0.11
VS NG6/3	15.4	0.30	0.026	.	0.092	2.77	0.23	2.00	.	1.53	.	(0.004)	(0.002)	0.25	0.47	0.97
VS NG7/3	15.3	0.14	0.027	.	0.151	3.40	0.42	0.90	.	1.08	.	(0.004)	0.0022	0.37	0.214	1.66

Co/Cr and Cr/Co NICKEL ALLOYS

= class, where 1 = CRM and 2 = RM

* Provisional Analysis

#	Number	Cr	Co	Al	Fe	Mo	Ta	Ti	W	C	Cu	Mn	P	S	Si	V
1	IMZ 186	23.14	Rem	0.28	0.10	.	3.78	0.19	7.17	0.59	.	.	.	.	.	.
2	BS 617	22.44	12.42	1.20	1.76	9.64	.	0.28	0.06	0.079	0.062	0.057	0.007	<0.001	0.14	0.022
1	IARM 272A	21.98	12.89	1.16	1.10	9.34	(0.01)	0.50	0.061	0.082	0.015	0.067	(0.003)	0.0002	0.07	(0.005)
2	27X 14184F	21.8	10.5	0.02	0.40	10.7	.	0.02	.	.	0.09	0.40	.	.	0.41	.
2	27X 14188D	21.17	10.4	<0.01	0.44	10.3	.	0.03	.	.	(0.003)	0.30	.	.	0.33	.
1	SRM 1775	20.472	33.352	(0.024)	0.91	9.508	.	0.730	(0.02)	(0.0051)	(0.0046)	0.0121	(0.0006)	0.0013	(0.02)	0.0095
2	27X 14387E	20.2	10.0	<0.005	1.11	10.8	.	<0.005	.	.	<0.005	0.27	.	.	0.28	.
2	22X 904C	19.9	16.9	1.29	0.25	0.21	.	2.26	.	0.08	0.10	0.50	.	.	0.52	.
2	22X 903C	19.84	17.60	1.67	0.83	0.07	.	1.86	.	0.08	0.01	0.25	.	.	1.09	.
1	24X 07001B	19.52	13.31	1.384	0.997	4.29	.	3.10	.	0.0357	0.0115	0.0311	0.0033	(0.0007)	0.064	.
1	BS 199B	19.46	12.41	1.37	1.17	3.87	(0.001)	3.00	0.048	0.041	0.015	0.0240	0.0031	0.0005	0.034	0.071
1	SRM 1243	19.05	12.39	1.23	0.776	4.226	(0.0003)	3.054	0.0139	0.024	(0.0063)	0.00730	0.00317	0.00217	0.0192	0.1043
2	22X 902B	18.80	17.08	1.31	0.61	0.22	.	2.26	.	0.15	0.13	0.51	.	.	0.50	.
1	IARM 325A	18.52	10.46	1.56	0.07	9.98	(0.003)	3.16	(0.03)	0.067	(0.003)	(0.004)	(0.003)	0.0003	0.012	0.01
1	24X 7201A	16.01	14.79	2.44	0.09	3.01	.	5.10	.	0.0322	.	0.0022	(0.0024)	0.0024	0.036	.
1	IMZ 183	15.87	8.32	3.51	(0.046)	1.81	1.87	3.34	2.66	0.100	.	.	.	.	.	.
2	22X 1052C	15.7	18.6	4.08	0.65	4.48	.	1.09	.	0.19	0.13	0.26	.	.	0.51	.
1	IARM 277A	14.35	14.5	4.38	0.16	4.22	(0.02)	3.40	0.047	0.080	0.004	0.01	0.002	0.0010	0.037	0.011
1	IMZ 184	14.16	14.32	4.37	.	4.30	.	3.43	.	0.086	.	.	(0.001)	.	(0.018)	.
1	IMZ 185	9.91	4.47	5.56	(0.022)	3.92	.	2.73	5.12	0.152	.	.	.	.	.	.
1	IMZ 187	8.78	9.70	4.90	0.053	1.82	3.79	2.31	6.93	0.109	(0.001)	(0.0005)	(0.0006)	(0.0002)	(0.011)	.
1	IMZ 182	8.63	13.52	5.69	(0.04)	3.10	.	4.69	.	0.169	.	.	.	.	.	0.81
1	IMZ 202	8.39	10.02	5.67	(0.024)	0.63	3.25	1.01	10.04	0.152	.	.	.	.	(0.016)	.
1	IARM 333A *	8.32	9.4	5.53	0.036	0.49	3.15	0.73	9.7	0.072	(0.01)	(0.005)	(0.004)	0.0004	0.08	(0.002)
2	210X 11979G	8.07	14.32	3.76	0.56	3.28	.	5.22	.	0.025	0.07	0.13	.	.	0.30	0.82
1	IARM 283A	8.05	9.8	6.05	0.044	5.94	4.3	0.98	0.056	0.114	(0.01)	(0.001)	0.003	0.0006	0.019	0.0058
1	IMZ 180	7.98	9.95	6.00	0.073	5.96	4.26	1.02	(0.048)	0.107	.	.	(0.003)	.	(0.026)	.
1	IARM 332A *	6.31	9.4	5.8	0.023	0.61	6.51	0.99	6.5	0.004	(0.01)	(0.004)	(0.002)	0.0003	(0.03)	(0.001)

#	Number	Cr	Co	Al	Fe	Mo	Ta	Ti	W	C	Cu	Mn	P	S	Si	V
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note: IMZ samples are "slice of pie" shaped 1/4 sections of large cylinders

Number	B	Hf	Mg	N	Nb	Ni	O	Pb	Sn	Zr	Units
IMZ 186	(0.007)	.	.	.	.	10.22	.	.	.	0.40	1/4 of 78 mm ϕ x 30 mm
BS 617	0.0020	.	(0.02)	0.0070	0.123	(51.6)	.	0.0001	.	.	1/4 of 100 mm ϕ x ~15 mm
IARM 272A	0.003	.	(0.002)	0.0049	0.015	52.68	0.0007	.	(0.0003)	(0.002)	31 mm ϕ x 2 or 18 mm
27X 14184F	.	.	.	.	.	.	.	.	.	.	40 mm ϕ x 15 mm
27X 14188D	.	.	.	.	.	.	.	.	.	.	40 mm ϕ x 15 mm
SRM 1775	0.0097	.	.	(0.002)	(0.03)	34.911	.	.	.	.	35 mm ϕ x 12 mm
27X 14387E	.	.	.	.	.	.	.	.	.	.	40 mm ϕ x 15 mm
22X 904C	.	.	0.005	.	.	.	.	.	.	.	40 mm ϕ x 15 mm
22X 903C	.	.	0.002	.	.	.	.	.	.	.	40 mm ϕ x 15 mm
24X 07001B	0.0060	.	.	.	0.0314	57.2	.	.	.	0.0563	~32 mm ϕ x ~20 mm
BS 199B	0.0053	.	0.0032	0.0038	0.069	58.4	0.0006	.	0.0006	0.045	38 mm ϕ x ~7 or 19+ mm
SRM 1243	0.00494	.	.	.	0.0286	58.782	.	.	.	0.053	34 mm ϕ x 19 mm
22X 902B	.	.	0.02	.	.	.	.	.	.	.	40 mm ϕ x 15 mm last
IARM 325A	0.0082	.	0.0044	0.0016	(0.007)	56.1	0.0005	.	(0.0002)	(0.002)	31 mm ϕ x 2 or 18 mm
24X 7201A	0.0242	.	.	0.005	.	57.10	.	.	.	0.0433	40 mm ϕ x 13 mm
IMZ 183	(0.010)	.	.	.	0.92	.	.	.	.	0.030	1/4 of 70 mm ϕ x 40 mm
22X 1052C	.	.	0.002	.	.	.	.	.	.	.	40 mm ϕ x 15 mm
IARM 277A	0.015	.	0.0021	0.0017	0.034	58.9	0.0005	.	<0.003	0.010	31 mm ϕ x 2 or 18 mm
IMZ 184	0.016	.	.	.	(0.032)	.	.	.	.	.	(0.012) 1/4 of 80 mm ϕ x 30 mm
IMZ 185	0.015	.	(0.002)	.	.	.	.	.	.	.	(0.014) 1/4 of 64 mm ϕ x 45 mm
IMZ 187	0.0159	1.50	.	.	0.004	60.11	.	.	.	0.029	1/4 of 90 mm ϕ x 20 mm
IMZ 182	0.013	.	.	.	.	.	.	.	.	0.031	1/4 of 64 mm ϕ x 45 mm
IMZ 202	0.0152	1.42	.	.	0.028	(59.7)	.	.	.	0.031	1/4 of 90 mm ϕ x 20 mm
IARM 333A *	0.015	1.4	0.0013	0.0013	(0.005)	61.1	0.0004	.	Re: (0.01)	0.009	31 mm ϕ x 2 mm
210X 11979G	.	.	.	.	.	.	.	.	.	0.04	40 mm ϕ x 15 mm
IARM 283A	0.014	.	0.0033	0.0003	0.020	64.4	0.0004	.	(0.0002)	0.053	31 mm ϕ x 2 or 18 mm
IMZ 180	(0.017)	.	.	.	0.024	.	.	.	.	0.075	1/4 of 80 mm ϕ x 30 mm
IARM 332A *	0.001	0.098	0.006	0.0002	0.005	61	0.0003	.	Re: 2.9	(0.003)	31 mm ϕ x 2 or 18 mm

Number	B	Hf	Mg	N	Nb	Ni	O	Pb	Sn	Zr	Units
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Cr/Al NICKEL ALLOY

= class, where 1 = CRM and 2 = RM

IMZ: 1/4 section of 90 mm Ø x 20 mm

SS: 50 mm Ø x 13 mm

#	Number	Cr	Al	Co	Fe	Mo	Nb	Si	Ti	B	C	Mn	S	Zr
1	SS 350	13.50	6.00	0.30	1.50	4.30	2.00	0.10	0.80	0.013	.	0.03	.	.
1	IMZ 203	11.80	6.13	(0.024)	0.032	4.32	2.04	(0.019)	0.62	0.0077	0.061	.	(0.0006)	0.059

Cr/Fe NICKEL ALLOY

= class, where 1 = CRM and 2 = RM

underlined BS samples are ISO 17025 Accredited

#	Number	Cr	Fe	Ni	Al	C	Co	Cu	Mn	Mo	Nb	P	S	Si	Ti	V	W
1	SRM 1247	23.4	26.5	43.5	0.060	0.021	0.089	1.75	0.38	2.73	(0.46)	0.018	0.002	0.32	0.75	(0.048)	(0.005)
1	BS 825F *	22.6	30.5	[39.5]	0.1	0.01	<0.5	1.77	0.5	3.3	0.02	0.01	0.0009	<0.5	0.96	0.09	0.03
2	HRT NI2013	22.03	31.86	38.65	0.10	(0.018)	.	1.92	0.72	3.15	.	(0.013)	(0.004)	0.30	1.00	.	.
1	219X 08825A	21.94	31.82	39.12	0.149	0.016	0.0646	1.87	0.499	3.01	(0.007)	0.0189	(0.0007)	0.232	1.192	0.038	.
1	IARM 59E	21.9	31.6	39.7	0.067	0.0073	0.27	1.70	0.502	2.72	0.20	0.015	0.0009	0.232	0.81	0.049	0.17
1	<u>BS 825E</u>	21.87	31.45	39.92	0.080	0.010	0.26	1.72	0.51	2.74	0.19	0.015	0.0010	0.24	0.82	0.049	0.166
1	<u>BS 800A</u>	21.09	42.7	33.3	0.362	0.075	0.069	0.244	0.883	0.117	0.021	0.013	(0.0007)	0.361	0.526	0.058	(0.030)
2	BS 925	20.82	26.92	43.53	0.17	0.011	0.34	1.74	0.50	3.00	0.23	0.016	0.0020	0.11	2.20	0.03	0.47
1	<u>BS 189A</u>	20.4	[48.1]	23.8	0.0129	0.0147	0.100	0.184	0.639	6.04	(0.13)	0.019	(0.001)	0.30	0.0065	0.054	0.037
1	IARM 347A	20.14	47.4	24.88	0.016	0.023	0.083	1.34	1.24	4.16	(0.01)	0.023	0.0009	0.56	0.007	0.078	0.020
1	SRM 1246	20.1	46.2	30.8	0.30	0.082	0.076	0.49	0.91	0.36	(0.09)	0.018	0.001	0.18	0.32	(0.040)	(0.004)
1	<u>BS 187D</u>	19.91	[39.6]	32.3	0.0164	0.0337	0.089	3.52	0.938	2.17	0.621	0.0155	0.0021	0.669	0.0027	0.073	0.086
1	<u>BS 800</u>	19.90	46.0	31.29	0.279	0.073	0.054	0.323	0.789	0.195	0.0183	0.0161	0.00036	0.560	0.469	0.071	0.0056
1	IARM 58B	19.6	47.7	30.7	0.45	0.073	0.02	0.011	0.51	0.01	0.01	0.010	0.001	0.282	0.50	0.035	0.01
1	IARM 7C	18.4	43.5	34.9	0.017	0.064	0.041	0.031	1.32	0.095	0.189	0.014	0.0004	1.21	0.022	0.060	(0.02)
1	SS 387/1	11.35	38.4	41.2	0.24	0.033	0.020	0.0076	0.025	5.83	.	0.0033	0.0028	0.06	3.00	.	.

Number	As	B	Ca	Ga	Mg	N	O	Pb	Sb	Sn	Ta	Zr	Type	Units	mmØ x mmH
SRM 1247	(0.003)	0.002	.	(0.011)	.	(0.017)	(0.005)	(0.0001)	.	.	(0.001)	.	825	35 x 19	
BS 825F *	.	0.002	<0.005	.	0.002	<0.05	<0.005	.	.	0.004	.	<0.005	825	38 x ~7 or 19+	
HRT NI2013	.	.	.	.	.	.	.	.	.	.	.	.	825	30 x 20	
219X 08825A	.	0.0028	.	.	(0.003)	.	.	.	.	.	.	0.0021	825	~40 x ~15	
IARM 59E	(0.001)	0.0027	.	.	(0.0001)	0.010	0.0033	(0.00002)	(0.001)	0.0031	(0.004)	(0.002)	825	31 x 2	
<u>BS 825E</u>	.	0.0025	(0.0004)	.	.	0.0105	(0.004)	.	.	.	.	.	825	38 x ~7	
<u>BS 800A</u>	(0.002)	0.0018	(0.000006)	.	0.0022	0.0126	0.0014	(0.001)	(0.0005)	0.0041	(0.005)	(0.002)	800	38 x ~7 or 19+	
BS 925	.	0.002	.	.	.	0.0042	(0.0075)	.	.	(0.002)	.	.	925	38 x ~7 or 19+	
<u>BS 189A</u>	0.0039	(0.0002)	(0.0004)	.	.	0.198	0.0024	.	.	0.0035	.	(0.001)	AL6XN	38 x ~7 or 19+	
IARM 347A	0.006	0.0020	0.0029	.	0.0008	0.062	0.0026	0.0003	0.0013	0.011	(0.005)	(0.002)	904L	31 x 2 or 18	
SRM 1246	(0.004)	<0.001	.	(0.004)	.	(0.018)	(0.003)	(0.0001)	.	.	(0.001)	.	800	35 x 19	
<u>BS 187D</u>	(0.0035)	0.0026	0.0063	.	(0.0009)	0.046	0.0026	0.0019	(0.0011)	0.0085	0.0008	(0.0012)	20	38 x ~7 or 19+	
<u>BS 800</u>	0.0036	0.0032	0.00030	last	(0.002)	0.0112	(0.0009)	0.00004	0.00046	0.0026	(0.001)	0.0018	800	44 x ~7, 12 or 19	
IARM 58B	.	(0.0003)	.	.	(0.001)	0.010	0.001	(0.0001)	.	(0.002)	.	<0.005	800	31 x 2 or 18	
IARM 7C	.	0.0027	.	.	0.0015	0.034	0.0021	(0.001)	.	0.0020	(0.002)	(0.001)	330	31 x 2 or 18	
SS 387/1	.	0.017	.	.	.	.	.	.	.	.	.	.	901	41 x 13	

RM

Cr/Fe NICKEL ALLOY TYPE 'NIMONIC 75 AND 80A'

22X: cast, 40 mm Ø x 15 mm

CT: 30-35 mm Ø x 20-25 mm

Number	Cr	Fe	Al	Mn	Si	Ti	C	Co	Cu	Mo	V	Ni
22X 801D	20.75	0.57	1.33	0.56	0.51	2.19	0.14	0.25	0.22	0.25	.	.
CT ISO122A	19.89	1.42	1.71	0.007	0.012	2.49	0.061	0.007	0.007	0.015	0.118	74.07
22X 804D	19.72	0.66	1.33	0.54	0.56	2.34	0.07	0.20	0.21	0.09	.	.
22X 806D	19.66	0.18	1.35	0.09	0.10	2.48	0.007	0.03	0.004	0.01	.	.

Need a larger size?

Most BS items are available in any height.

Number	Ag	As	B	Bi	Nb	P	Pb	S	Sn	W	Zr
22X 801D	.	0.03	.	.	.	.	.	.	.	.	.
CT ISO122A	<0.0001	.	0.0036	<0.00001	0.01	0.001	0.0001	<0.001	0.0007	<0.01	0.073
22X 804D	.	0.004	.	.	.	.	.	.	.	.	.
22X 806D	.	.	0.004	.	.	.	0.007	.	.	0.02	0.004

RM Cr/Fe TYPE 'RA 333' NICKEL ALLOYS

Number	Cr	Fe	Al	Co	Cu	Mn	Mo	Nb	Si	W	Ni
BS 197B	25.73	16.24	0.11	3.22	0.030	1.58	3.27	(0.02)	0.92	2.91	45.6
BS 197A	25.11	18.07	0.18	3.06	0.12	1.56	2.99	0.20	0.96	2.79	44.44

Number	B	C	Mg	N	P	Pb	S	Sn	Ti	V	Units
BS 197B	0.0018	0.049	0.013	(0.049)	0.011	.	0.0008	(0.002)	0.091	0.053	wrought 38 mm Ø x ~7 or 19+ mm
BS 197A	0.0019	0.050	.	(0.052)	0.021	(0.0002)	<0.001	.	0.017	0.051	wrought 38 mm Ø x ~7 or 19+ mm

Cr/Fe NICKEL ALLOY TYPE 600, 602, and 690

= class, where 1 = CRM and 2= RM

#	Number	Cr	Fe	Al	B	C	Co	Cu	Mg	Mn	Mo	N	Nb	Ni	Si	Ti	V
1	BS 690A	29.5	9.08	0.209	0.0003	0.0321	0.0056	0.0072	0.0058	0.214	0.0025	0.0069	0.0039	60.5	0.036	0.340	0.0095
1	IARM 338A *	25.3	9.8	2.13	0.004	0.17	0.035	0.005	0.006	0.05	0.0013	0.028	0.004	62.3	0.02	0.13	(0.003)
2	28X 6005E	16.93	6.98	0.06	.	.	0.62	0.39	0.002	0.39	.	.	.	.	0.60	0.28	.
2	28X 6001G	16.38	6.33	0.02	.	.	1.02	0.83	0.01	0.12	.	.	.	0.95	0.58	.	.
2	BS 600-2	16.36	6.80	0.16	0.0098	0.071	0.10	0.089	0.012	0.31	0.007	0.030	(0.02)	75.34	0.23	0.37	0.028
2	28X 6002F	16.23	8.24	0.18	.	.	0.22	0.02	0.004	0.65	.	.	.	.	0.25	0.12	.
2	28X 6004E	16.21	7.17	0.05	.	.	0.77	0.42	0.008	0.38	.	.	.	.	0.65	0.27	.
1	SRM 1244	15.7	9.6	0.26	<0.005	0.062	0.058	0.26	.	0.29	0.20	.	.	73.2	0.12	0.25	.
2	BS 600-5	15.59	8.36	0.19	0.0018	0.047	0.029	0.10	0.004	0.21	0.049	0.011	(0.03)	74.83	0.26	0.23	0.054
2	28X 6003E	15.56	7.1	0.025	.	.	0.62	0.42	0.01	0.47	.	.	.	.	0.74	0.22	.
2	BS 600-6	14.86	7.33	0.288	0.0028	0.083	0.066	0.24	0.022	0.21	0.12	0.0078	0.14	76.0	0.31	0.24	0.023
2	BS 600-3	14.77	8.88	0.09	0.0082	0.020	0.10	0.24	0.012	0.28	0.007	0.0081	(0.02)	75.05	0.19	0.20	0.020
2	BS 600-4	14.72	8.40	0.06	0.0060	0.034	0.09	0.08	0.020	0.20	(0.002)	0.021	(0.015)	75.88	0.22	0.20	0.023

Number	As	Ca	O	P	Pb	S	Sb	Sn	Ta	W	Zr	Units
BS 690A	(0.0004)	0.0009	0.0009	0.0052	(0.0001)	0.0004	(0.0002)	(0.0003)	(0.0011)	0.0011	0.0018	38 mm Ø x ~7 or 19+ mm 17025
IARM 338A *	.	.	0.0008	(0.003)	(0.0001)	0.0007	(0.0001)	0.0004	.	Y:0.07	0.08	31 mm Ø x 2 or 18 mm * Provisional
28X 6005E	40 mm Ø x 15 mm
28X 6001G	40 mm Ø x 15 mm
BS 600-2	.	.	.	0.006	.	0.004	.	.	.	.	.	38 mm Ø x 20 mm
28X 6002F	40 mm Ø x 15 mm
28X 6004E	40 mm Ø x 15 mm
SRM 1244	.	.	.	0.010	.	0.003	.	.	.	.	.	35 mm Ø x 19 mm
BS 600-5	.	.	0.002	0.005	.	<0.002	.	.	.	.	.	38 mm Ø x ~7 or 19+ mm
28X 6003E	40 mm Ø x 15 mm
BS 600-6	.	.	.	0.007	.	0.001	.	.	.	.	.	38 mm Ø x ~7 or 19+ mm
BS 600-3	.	.	.	0.008	.	0.005	.	.	.	.	.	38 mm Ø x 20 mm
BS 600-4	.	.	.	0.007	.	0.004	.	.	.	.	.	38 mm Ø x 20 mm

Need a larger size?
Most BS items are
available in any height.

Cr/Fe NICKEL ALLOY TYPE 718

= class, where 1 = CRM and 2 = RM

#	Number	Cr	Fe	Nb	Mo	Ti	Al	B	C	Co	Cu	Mn	P	S	Si	Ni
1	28X 7185K	20.77	18.44	4.61	2.71	0.281	0.359	0.0107	0.060	0.220	0.203	0.286	0.0189	0.0089	0.882	50.67
1	28X 7182N	19.22	18.04	4.54	2.59	0.691	(0.31)	0.0042	0.0840	0.515	0.125	0.417	0.0110	0.0125	0.706	52.6
1	SS 351/1	19.14	17.20	5.31	3.04	0.938	0.554	0.0035	0.0255	0.145	0.0222	0.0562	0.0045	0.00037	0.080	53.35
1	28X 07718A	18.62	19.55	5.05	3.01	0.945	0.544	0.0034	0.026	0.172	0.038	0.055	0.0063	0.0015	0.076	51.99
1	NCS HS41746	18.56	18.54	5.15	3.28	1.03	0.635	0.0025	0.027	0.111	0.023	0.057	0.0033	0.0005	0.080	52.27
1	SRM 1249	18.472	17.693	5.196	3.112	0.959	0.5682	(0.0023)	(0.0380)	0.3371	0.1402	(0.108)	(0.0134)	(0.00064)	(0.120)	53.29
1	28X 7181J	18.42	18.98	4.88	3.25	0.125	0.070	0.0021	0.0198	(0.014)	0.042	0.150	0.0146	0.0089	0.811	53.10
1	BS 718D	18.32	18.51	5.16	3.00	0.93	0.631	0.0041	0.037	0.368	0.071	0.100	0.0083	0.0004	0.072	52.5
1	SS 351	18.12	18.26	5.20	3.06	1.06	0.55	0.0051	0.025	0.136	0.016	0.037	(0.006)	0.0006	0.14	53.1

Number	As	Mg	N	O	Pb	Sn	Ta	V	W	Zr	Units
28X 7185K	.	.	0.172	.	.	.	0.115	.	.	.	cast ~40 mm Ø x ~15 mm
28X 7182N	.	.	0.064	.	.	.	0.025	0.0938	.	.	cast ~40 mm Ø x ~15 mm
SS 351/1	.	0.0016	0.0077	.	Sb:0.00024	0.00033	0.0033	0.0181	0.0209	0.0017	wrought 41 mm Ø x 13 mm
28X 07718A	.	.	0.0056	.	.	.	.	.	.	.	wrought 38 mm Ø x ~15 mm.
NCS HS41746	(0.008)	.	.	.	40 mm Ø x 30 mm
SRM 1249	.	(0.0012)	(0.007)	.	(0.00001)	(0.0024)	(0.0027)	(0.0338)	(0.0846)	(0.0029)	41 mm Ø x 19 mm
28X 7181J	.	.	0.038	.	.	.	.	.	.	.	cast ~40 mm Ø x ~15 mm
BS 718D	0.0011	0.0038	0.0084	0.0015	(0.00006)	0.0020	(0.0022)	0.038	0.049	(0.002)	wrought 38 mm Ø x 19+ mm
SS 351	wrought 41 mm Ø x 13 mm

Need a larger size?
Most BS items are
available in any height.

Cr/Fe NICKEL ALLOY TYPE 750

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

#	Number	Cr	Fe	Ti	Al	C	Co	Cu	Mn	Mo	Nb	Ni	P	S	Si	Ta	
1	BS 750C	15.92	8.36	2.61	0.91	0.041	0.036	0.012	0.056	0.070	0.83	71.0	0.0059	(0.0004)	0.071	(0.006)	17025
1	BS 750D *	15.5	8.4	2.6	0.70	0.04	0.03	0.03	0.19	<0.5	0.89	[71.3]	0.007	<0.005	0.19	<0.5	
3	HT 8211X	15.48	6.81	2.33	0.68	0.052	0.10	0.090	0.53	.	0.45	.	.	0.004	0.36	0.22	
3	HT 8209X	15.38	7.01	2.74	0.88	0.044	0.15	0.051	0.67	.	0.52	.	.	0.003	0.31	0.23	

Number	As	B	Ca	Mg	N	O	Pb	Sb	Sn	V	W	Zr	Units
BS 750C	(0.0009)	0.0028	(0.0006)	0.0022	0.0031	(0.0014)	(0.0001)	(0.00007)	0.0012	0.132	(0.0028)	0.022	38 mm Ø x ~7 or 19+ mm wrought
BS 750D *	<0.05	<0.05	.	<0.05	<0.05	<0.005	.	* Provisional Analysis	<0.5	<0.0001	<0.5	.	38 mm Ø x ~7 or 19+ mm wrought
HT 8211X	.	.	.	.	.	.	.	.	.	.	.	.	25 mm Ø x 50 mm wrought
HT 8209X	.	.	.	.	.	.	.	.	.	.	.	.	25 mm Ø x 50 mm wrought

Cr/Mo NICKEL ALLOY AND TYPES 625 and 725

= class, where 1 = CRM and 2 = RM

* Provisional Analysis

#	Number	Cr	Mo	Fe	Nb	Si	Ti	W	Al	B	C	Co	Cu	Mn	P	S	Ni
1	28X 6254M	22.71	8.92	3.33	3.60	(0.79)	(0.15)	.	(0.01)	0.005	0.047	0.195	0.044	0.457	0.0097	0.0160	59.55
1	BS 625E	22.44	8.77	3.81	3.56	0.065	0.27	0.016	0.214	0.0022	0.049	0.031	0.024	0.050	0.004	0.0005	60.7
1	BS H6B	22.3	14.05	3.45	(0.1)	(0.035)	0.050	3.20	0.23	0.0016	(0.008)	0.079	0.035	0.226	0.0054	0.0005	55.9
1	BS 625D	22.33	8.74	3.81	3.54	0.072	0.276	0.014	0.21	0.0019	0.048	0.041	0.019	0.069	0.0039	0.0004	60.9
1	28X 06625A	21.94	9.15	0.917	3.52	0.273	0.238	.	0.184	0.0009	0.020	0.031	0.0288	0.090	(0.0022)	0.0037	63.49
1	ECRM 377-2	21.72	8.94	3.77	3.50	0.077	0.264	.	0.232	(0.0006)	0.0202	0.0348	0.0104	0.0225	0.0036	0.0006	61.45
1	ECRM 377-1	21.72	8.94	3.77	3.50	0.077	0.255	.	0.216	(0.0006)	0.0202	0.0348	0.0110	0.0225	0.0036	0.0006	61.45
1	28X 6256A	21.29	8.81	(0.034)	3.75	0.041	0.266	.	0.301	.	0.0173	.	0.018	(0.0004)	0.0033	(0.0016)	65.4
1	IARM 274A	21.0	8.06	7.60	3.48	(0.02)	1.55	0.06	0.26	0.002	0.007	0.143	0.10	0.08	0.007	0.0004	57.5
2	BS 725	20.72	7.97	8.0	3.52	0.02	1.52	.	0.13	(0.002)	0.010	0.02	0.014	0.08	0.004	0.002	58.0
1	NCS HS41745	20.69	8.37	3.50	3.19	0.071	0.011	.	0.016	.	0.043	(0.011)	.	0.124	0.0023	0.0006	63.72
2	26X 11384E	20.5	10.2	0.98	.	0.15	2.6	.	0.50	.	.	0.30	0.12	0.13	.	.	.
1	28X 6251M	20.22	9.60	4.22	2.64	0.251	0.0096	.	0.006	0.0040	0.0026	0.0080	0.0570	0.0694	0.002	0.0012	62.93
1	28X 6255M	19.65	8.32	2.03	4.09	0.448	0.346	.	0.334	0.0101	0.0342	0.164	0.0647	0.2034	0.0105	0.0080	64.16
2	HRT NI2004	15.72	14.89	0.41	0.022	0.019	0.391	0.011	0.097	.	0.005	0.011	0.010	0.27	0.004	0.002	68.05

#	Number	Cr	Mo	Fe	Nb	Si	Ti	W	Al	B	C	Co	Cu	Mn	P	S	Ni
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Number	As	Ca	Mg	N	O	Pb	Sb	Sn	Ta	V	Zr	Units
28X 6254M	.	.	.	0.0364	c.cast ~40 mm Ø x ~15 mm last
BS 625E	(0.003)	(0.0006)	0.0021	0.0074	0.0015	(0.00005)	(0.0001)	(0.0006)	(0.0036)	0.020	(0.003)	wrought 38 mm Ø x ~7 or 19+ mm 17025
BS H6B	(0.0015)	.	0.0010	0.0118	0.0007	.	(0.006)	(0.0007)	.	0.0063	.	wrought 38 mm Ø x ~7 or 19+ mm 17025
BS 625D	0.0007	(0.0009)	.	0.0067	0.0012	.	(0.0004)	(0.0006)	(0.004)	0.018	.	wrought 38 mm Ø x ~7 or 19+ mm 17025
28X 06625A	.	.	.	0.0219	.	.	.	.	.	.	.	wrought 40 mm Ø x ~15 mm
ECRM 377-2	wrought 40 mm Ø x 20 mm
ECRM 377-1	wrought 40 mm Ø x 20 mm
28X 6256A	.	.	.	0.007	.	.	.	.	.	.	.	HIP 40 mm Ø x 13 mm
IARM 274A	.	.	0.0019	0.007	0.0006	.	.	0.001	(0.002)	0.019	(0.001)	31 mm Ø x 2 or 18 mm
BS 725	.	.	.	0.0051	.	.	.	.	.	.	.	wrought 38 mm Ø x ~7 or 19+ mm
NCS HS41745	(0.001)	.	.	40 mm Ø x 30 mm
26X 11384E	cast 40 mm Ø x 15 mm
28X 6251M	0.0112	.	.	c.cast ~40 mm Ø x ~15 mm
28X 6255M	0.0005	.	0.0012	0.093	.	.	c.cast ~40 mm Ø x ~15 mm
HRT NI2004	0.010	0.012	.	35 mm Ø x 20 mm

Number	As	Ca	Mg	N	O	Pb	Sb	Sn	Ta	V	Zr	Units
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Need a larger size?
Most BS items are
available in any height.

VARIOUS INCOLOY ALLOYS

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

#	Number	Cr	Fe	Mn	Si	Ti	Al	C	Co	Cu	Mo	P	S	Ni
3	HH 5179A	22.20	Rem	0.87	0.38	0.46	0.30	0.042	.	0.26	.	0.012	0.003	34.13
3	HH 5157A	21.48	Rem	0.95	0.43	0.55	0.45	0.067	.	0.33	.	0.012	0.003	29.31
3	HH 5196A	20.66	Rem	1.05	0.45	1.13	0.31	0.036	.	0.24	.	0.011	0.002	31.46
2	23X 8004E	19.72	Rem	0.70	0.53	0.34	0.31	0.06	0.53	0.30	0.33	.	.	31.8
3	HH 5300A	18.18	Rem	0.86	0.35	0.54	0.45	0.026	.	0.28	.	0.013	0.003	33.56
2	23X DS 2E	17.81	Rem	1.00	2.07	0.17	0.04	0.06	0.48	0.30	0.30	.	.	37.4
2	23X DS 4E	16.83	Rem	1.02	2.01	0.20	0.037	0.05	0.48	0.30	0.29	.	.	37.1
2	23X DS 5E	8.64	Rem	1.04	1.98	0.17	0.083	0.080	0.50	0.30	0.30	.	.	36.6

Number	Units
HH 5179A	wrought 44 mm Ø x 12 mm
HH 5157A	wrought 44 mm Ø x 12 mm
HH 5196A	wrought 44 mm Ø x 12 mm
23X 8004E	cast 40 mm Ø x 15 mm
HH 5300A	wrought 41 mm Ø x 12 mm
23X DS 2E	cast 40 mm Ø x 15 mm
23X DS 4E	cast 40 mm Ø x 15 mm
23X DS 5E	cast 40 mm Ø x 15 mm

RM Cr/Nb NICKEL ALLOY

cast typical analysis

Number	Cr	Nb	Co	Cu	Fe	Mn	Mo	Si	W	Units
25X 10221F	20.0	7.43	0.26	0.11	0.62	0.28	6.57	0.45	2.23	40 mm Ø x 15 mm

CRM Cr/W TYPE 'HAYNES 230'

analysis listed in mass %

Number	Cr	W	Mo	Fe	Mn	Si	Ni	Al	B	C	Co	Cu	Mg	N	Nb	P	V	
BS H230	22.35	14.45	1.69	1.376	0.470	0.39	58.4	0.29	0.0044	0.096	0.24	0.030	0.004	0.061	0.053	0.0042	0.0056	17025
IARM 68D *	21.6	14.1	1.29	1.11	0.49	0.42	60.3	0.33	0.004	0.099	0.16	0.015	0.006	0.0483	0.029	0.006	0.009	

Number	As	Ca	La	O	Pb	S	Sb	Sn	Ta	Ti	Zr	Units
BS H230	0.0007	(0.00003)	.	0.0009	(0.00003)	(0.0003)	(0.00007)	(0.0003)	(<0.1)	(0.01)	(0.002)	38 mm Ø x ~7 or 19+ mm
IARM 68D *	.	.	(0.011)	(0.0005)	.	(0.0001)	.	.	(0.01)	0.011	0.003	31 mm Ø x 2 or 18 mm * Provisional Analysis

CRM Cr/Fe/Mn/Nb ALLOY

analysis listed in mass %

~40 mm Ø x ~15 mm

Number	C	Co	Cr	Cu	Fe	Mn	Mo	Nb	Ni	P	S	Si	Ta	Ti
219X 20004A	0.224	(0.104)	13.63	0.319	9.46	14.05	0.104	1.53	59.1	0.0147	0.0028	0.916	0.077	0.52
219X 86182A	0.148	0.047	15.88	0.150	7.88	7.68	0.078	2.17	64.7	0.0098	0.0034	0.807	0.031	0.421

'MONEL' TYPE COPPER-NICKEL ALLOY

= class, where 1 = CRM and 2 = RM

Number	Cu	Al	Fe	Mn	Si	Ti	C	Co	Cr	Mg	Mo	Nb	P	Pb	S	Ni
1 BS 400D	33.0	0.0231	2.00	0.993	0.146	0.064	0.130	0.032	0.0057	0.0217	0.0024	(0.0001)	(0.0010)	0.0004	0.0006	63.4
1 212X 04400A	32.47	0.030	2.065	1.027	0.253	0.0193	0.157	0.0432	0.166	0.053	0.0307	.	0.0033	.	(0.002)	63.69
1 212X 4002L	32.41	0.081	1.022	1.68	0.090	0.0421	0.0369	0.064	0.084	0.0222	.	0.0318	.	0.0373	0.0019	64.33
2 IARM 202A	32.3	0.080	1.31	1.03	0.046	0.005	0.13	0.020	0.008	0.024	.	.	.	0.011	0.032	64.8
1 BS 405A	32.1	(0.002)	1.51	1.90	(0.15)	0.0021	0.051	0.019	0.0099	(0.17)	0.0031	0.0004	0.0037	0.0004	0.041	63.8
1 SS 363/1	31.90	0.027	1.86	1.26	0.028	(0.03)	0.140	0.032	(0.05)	.	.	.	.	.	(0.002)	Rem
2 BS 405	31.80	0.10	1.34	1.03	0.04	0.003	0.13	0.025	0.006	0.026	(0.002)	(0.002)	0.010	.	0.041	65.49
2 BS 400-3	31.25	0.001	1.60	0.85	0.063	0.004	0.153	0.46	0.21	0.012	0.003	(0.0004)	0.026	(0.0015)	0.006	65.4
2 BS 400-1	30.97	0.004	1.27	1.07	0.16	0.007	0.109	0.37	0.033	0.048	0.001	0.0003	0.022	0.0020	0.008	66.0
2 BS 400-2	30.75	0.006	1.42	1.17	0.17	0.011	0.170	0.46	0.091	0.033	0.0012	0.0004	0.027	(0.001)	0.008	65.9
1 212X 4003K	30.13	0.010	2.63	1.105	0.245	0.0201	0.036	0.0286	0.097	0.050	0.0317	0.150	0.0059	0.053	0.0257	(65.3)
1 212X 05500A	29.91	3.00	1.162	0.634	0.167	0.632	0.135	(0.0090)	0.073	0.0098	.	.	0.0031	.	0.0010	64.3
1 BS 500E	29.9	2.94	0.722	0.605	0.148	0.607	0.134	0.017	0.0174	0.0058	0.0044	(0.002)	0.022	(0.0008)	0.0006	64.7
1 SRM CI248	29.80	0.009	2.10	0.31	1.61	.	0.266	.	0.095	.	0.006	.	0.002	0.00038	0.0008	65.75
1 BS 500D	29.66	2.98	0.723	0.677	0.0700	0.446	0.154	0.0347	0.212	0.0110	0.0243	0.0073	0.0086	0.00028	0.00099	65.0
2 212X NA 2G	29.6	.	1.53	1.06	2.50	.	0.07	.	.	0.008	.	.	.	0.02	0.023	.
1 212X 4004M	29.0	0.71	3.68	0.953	0.557	0.652	0.081	0.0758	0.822	.	0.197	0.949	0.0400	0.0206	0.0110	62.1
1 212X 4007B *	29.0	.	2.0	1.0	2.1	.	0.05	.	.	0.05	.	2.4	0.025	0.02	0.002	62.8
1 212X 4001P	28.92	0.0396	0.503	2.95	1.48	(0.094)	0.0130	0.111	0.0795	0.0016	.	0.100	0.0198	0.0703	0.0206	65.49
1 212X 4006H	24.56	3.99	2.29	0.907	3.94	1.507	0.065	0.0327	0.123	0.041	.	0.497	.	0.0310	0.0256	61.96
1 212X 4005G *	21.1	1.34	1.08	1.42	2.5	0.92	0.047	0.16	0.19	.	0.094	0.34	0.019	0.007	0.003	Rem

Number	Cu	Al	Fe	Mn	Si	Ti	C	Co	Cr	Mg	Mo	Nb	P	Pb	S	Ni
Number	As	B	Bi	Ca	Cd	N	O	Sb	Sn	V	Zn	Zr	Units			
BS 400D	(0.0001)	0.0009	.	(0.001)	Ta:(0.009)	(0.00017)	0.0008	(0.0001)	(0.00012)	(0.0002)	(0.0004)	(0.0003)	wrought	38 mm Ø x ~7 or 19+ mm		
212X 04400A	.	0.0019	.	.	.	0.0005	.	.	.	.	.	.	wrought	~40 mm Ø x ~15 mm		
212X 4002L	.	.	.	.	.	.	.	.	.	.	.	.	cast	~40 mm Ø x ~15 mm		
IARM 202A	.	.	.	.	.	0.0004	.	.	.	.	.	0.010	.	31 mm Ø x 2 or 18 mm		
BS 405A	0.0004	0.0007	.	(0.00006)	.	(0.001)	0.0007	W: 0.0017	0.0004	(0.002)	0.0017	0.012	wrought	38 mm Ø x ~7 or 19+ mm		
SS 363/1	.	.	.	.	.	.	.	.	.	.	.	.	wrought	38 mm Ø x 19 mm		
BS 405	.	(0.001)	.	.	.	.	.	.	.	.	.	.	wrought	38 mm Ø x ~7 or 19+ mm		
BS 400-3	0.004	(0.0002)	.	.	.	.	.	(0.001)	0.0014	0.003	(0.001)	.	wrought	38 mm Ø x ~18 mm		
BS 400-1	0.004	(0.0005)	.	.	.	.	.	(0.0005)	0.0010	(0.001)	(0.0006)	.	wrought	38 mm Ø x ~18 mm		
BS 400-2	0.004	(0.0006)	.	.	.	.	.	(0.001)	0.0012	(0.003)	(0.001)	.	wrought	38 mm Ø x ~18 mm		
212X 4003K	.	.	.	.	.	.	.	.	.	.	.	.	cast	~40 mm Ø x ~15 mm		
212X 05500A	.	0.0015	.	.	.	0.0010	.	.	.	.	.	0.0343	wrought	~38 mm Ø x ~15 mm		
BS 500E	(0.0008)	0.0017	.	(0.0004)	W:(0.002)	(0.00025)	0.0005	.	(0.0008)	(0.001)	(0.001)	0.0133	wrought	38 mm Ø x ~7 or 19+ mm		
SRM CI248	.	.	.	.	.	.	.	.	0.00011	.	0.0003	.	.	32 mm Ø x 19 mm		
BS 500D	0.0015	0.00022	last	0.0030	Ta:0.00019	0.00015	0.0008	0.00006	(0.0004)	0.0020	W:0.0021	0.030	wrought	38 mm Ø x ~7 or 19+ mm		
212X NA 2G	.	.	.	.	.	.	.	.	.	.	.	.	cast	40 mm Ø x 15 mm		
212X 4004M	.	.	.	0.0010	.	.	.	.	0.0596	.	.	.	c.cast	~40 mm Ø x ~15 mm		
212X 4007B *	.	.	0.04	* Provisional Analysis	.	.	.	Se:0.02	0.01	.	0.08	.	c.cast	~40 mm Ø x ~15 mm		
212X 4001P	.	.	.	.	.	.	.	.	0.053	.	.	.	cast	~40 mm Ø x ~15 mm		
212X 4006H	.	.	.	.	.	.	.	.	0.0290	.	0.0708	.	cast	~40 mm Ø x ~15 mm		
212X 4005G *	* Provisional Analysis	.	.	.	.	.	.	.	.	.	.	.	cast	~40 mm Ø x ~15 mm		

Fe, Fe/Co, and Fe/Mo NICKEL ALLOY

= class, where 1 = CRM and 2 = RM

CT: 30-35 mm Ø x 20-25 mm

IARM: 31 mm Ø x 2 or 18 mm

SRM: 31-32 mm Ø x 19 mm

VS: ~38 mm Ø x ~19 mm

#	Number	Fe	Co	Cu	Mo	Al	B	C	Cr	Mn	Nb	Ni	P	S	Si	Ta	Ti	V
1	SRM 1159	51.0	0.022	0.038	0.01	.	.	0.007	0.06	0.30	.	48.2	0.003	0.003	0.32	.	.	.
1	SRM 1250	40.5	16.1	0.022	0.014	0.99	0.0078	0.022	0.077	0.052	2.99	37.78	<0.003	0.0025	0.097	0.003	1.48	0.077
2	IARM 203A	40.6	12.88	0.05	0.090	0.066	.	0.005	0.72	0.023	5.00	38.4	0.006	0.0009	0.41	.	1.58	.
1	SRM 1160	14.3	0.054	0.021	4.3	.	.	0.019	0.05	0.55	.	80.3	0.003	0.001	0.37	.	.	.
2	CT ISOL133A	13.75	0.003	4.41	4.17	.	.	0.014	0.037	0.51	.	76.99	0.003	<0.001	0.145	.	.	.
1	VS NG15/2	Rem	18.6	0.282	.	.	.	0.0204	0.016	0.40	.	27.7	0.017	0.012	0.177	.	.	.
1	VS NG16/2	Rem	16.5	0.044	.	.	.	0.018	0.14	0.15	.	33.2	0.0023	0.0037	0.27	.	.	.
1	VS NG17/2	Rem	14.0	0.47	.	.	.	0.0031	0.23	0.276	.	29.6	0.020	0.012	0.018	.	.	.

Mo/Fe 'HASTELLOY' TYPE ALLOY

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

#	Number	Mo	Co	Cr	Fe	W	Ni	Al	C	Cu	Mn	N	P	S	Si	Ti	V
1	215X HB1P	33.04	0.252	1.090	5.78	.	58.00	.	0.0422	0.0718	0.697	0.0156	0.0056	0.0506	0.150	.	0.504
1	215X HB2G	31.84	0.589	0.689	4.20	.	60.2	0.19	0.049	0.0526	0.800	0.0108	0.0084	0.0196	0.390	0.13	0.480
1	215X HB4F	27.59	1.71	0.414	7.02	(0.028)	61.21	.	0.079	(0.024)	0.666	0.0028	0.036	0.013	1.02	.	0.115
1	BS H1C	27.2	(0.01)	0.70	1.29	(0.009)	69.8	0.15	0.0022	(0.002)	0.51	(0.0005)	(0.0049)	(0.0004)	(0.01)	(0.008)	(0.02)
1	215X HB3H	27.17	1.03	2.35	6.32	.	(60.1)	0.23	0.069	0.134	0.61	0.0271	0.0197	0.0156	0.799	0.21	0.287
2	BS H1B	26.52	<0.02	<0.01	1.00	.	(71.3)	0.12	0.006	(0.01)	0.82	.	0.003	0.0005	0.049	0.11	<0.01
1	215X HB5L	26.1	2.49	0.123	3.45	.	65.3	0.49	0.151	0.268	0.335	0.006	0.038	0.0113	1.05	0.192	0.136
1	215X HC1M *	19.7	2.5	15.6	4.0	3.6	Rem	<0.01	0.030	0.02	1.25	0.003	<0.005	<0.005	0.50	0.27	0.15
1	215X HC3M *	17.5	0.97	17.9	4.8	4.6	Rem	0.11	0.090	0.09	0.67	0.006	0.02	0.012	0.95	0.15	0.41
1	SRM C2402	17.1	1.50	16.15	7.3	4.29	51.5	.	0.010	0.19	0.64	.	0.007	0.018	0.85	.	0.22
1	215X HC4M *	16.8	0.73	18.4	6.05	5.0	.	0.05	0.15	0.31	0.44	0.07	0.04	0.017	1.18	0.09	0.49
1	215X HC6A	16.14	1.16	15.67	5.00	3.22	58.45	0.066	0.005	.	0.099	0.0034	.	0.0021	(0.048)	0.003	0.012
1	215X 10276A	15.96	0.182	15.56	5.79	3.59	57.81	0.203	0.008	0.0423	0.498	0.0099	0.0027	(0.001)	0.029	0.0186	0.196
1	215X HC5V *	15.9	0.055	20.0	8.0	6.0	Rem	0.70	0.20	0.45	0.10	0.008	0.05	0.035	1.40	0.20	0.62
2	HRT NI2012	15.77	.	15.56	6.66	3.47	57.32	0.23	(0.008)	0.09	0.38	.	(0.009)	(0.003)	(0.06)	.	0.20
1	BS H2C	15.36	0.178	16.14	5.99	3.25	58.3	0.124	0.0027	0.116	0.415	0.0126	0.0086	0.00030	0.031	0.0172	0.0222
1	BS H2D	15.34	0.180	16.08	6.01	3.25	58.4	0.129	0.0025	0.117	0.414	0.0126	0.0081	0.00034	0.030	0.0129	0.022
1	BS H6B	14.05	0.079	22.3	3.45	3.20	55.9	0.23	(0.008)	0.035	0.226	0.0118	0.0054	0.0005	(0.035)	0.050	0.0063
1	IARM 65C *	13.29	1.43	21.13	4.70	2.75	55.8	0.18	0.005	0.073	0.288	0.034	0.012	0.0006	0.04	0.005	0.010
1	IARM 65D	13.1	1.22	21.5	3.66	2.81	56.8	0.29	0.0021	0.050	0.28	0.019	0.008	0.0004	0.035	0.005	0.012
2	HRT NI2014	13.03	(0.02)	21.42	2.47	2.92	59.23	0.16	(0.009)	.	0.30	.	(0.006)	(0.003)	0.06	0.13	(0.02)
2	BS H3B	8.84	1.96	22.23	19.92	0.49	44.9	0.14	0.078	0.27	0.11	.	0.013	0.0005	0.63	0.020	0.06
1	BS H3C	8.82	1.37	21.50	19.54	0.623	46.6	0.149	0.087	0.106	0.492	0.0266	0.0150	(0.0003)	0.36	(0.0064)	0.047
1	IARM 69D	8.78	1.67	21.13	17.7	0.49	48.1	0.21	0.090	0.075	0.72	0.029	0.012	0.0003	0.63	0.004	0.033
1	IARM 329A *	8.4	0.049	33.7	0.9	(0.02)	55.8	0.29	0.008	0.065	0.22	0.073	0.006	0.0003	0.05	(0.005)	0.009
1	IARM 67C	4.93	1.75	28.9	13.48	1.97	45.8	0.14	0.0058	1.24	1.01	0.035	0.011	0.0006	0.14	0.005	0.031
1	IARM 328A *	3.16	(0.002)	20.56	22.42	0.01	47.1	0.19	0.005	1.93	0.02	0.0055	0.005	0.0007	0.020	1.53	0.008

#	Number	Mo	Co	Cr	Fe	W	Ni	Al	C	Cu	Mn	N	P	S	Si	Ti	V
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Number	As	B	Ca	Mg	Nb	O	Pb	Sb	Sn	Ta	Zr	Units
215X HB1P	0.203	~40 mm Ø x ~15 mm
215X HB2G	0.248	~40 mm Ø x ~15 mm
215X HB4F	43 mm Ø x 20 mm
BS H1C	(0.001)	(0.001)	(0.001)	(0.0012)	(0.009)	(0.0009)	(0.00002)	.	(0.002)	(0.009)	(0.001)	38 mm Ø x ~7 or 19+ mm 17025
215X HB3H	0.699	.	.	.	.	.	.	~40 mm Ø x ~15 mm
BS H1B	.	0.003	.	.	<0.005	.	.	.	.	.	.	38 mm Ø x ~7 or 19+ mm
215X HB5L	.	0.003	.	.	.	.	.	.	.	.	.	40 mm Ø x ~15 mm
215X HC1M *	~40 mm mm Ø x ~15 mm
215X HC3M *	~40 mm mm Ø x ~15 mm
SRM C2402	32 mm Ø x 19 mm
215X HC4M *	~40 mm mm Ø x ~15 mm
215X HC6A	40 mm Ø x 13 mm HIP
215X 10276A	.	.	.	0.0090	0.031	.	.	.	.	.	0.009	~40 mm Ø x ~15 mm
215X HC5V *	~40 mm mm Ø x ~15 mm
HRT NI2012	38 mm Ø x 20 mm
BS H2C	0.0008	0.0008	0.0004	0.0061	0.032	0.0012	0.00014	0.0006	0.0011	(0.00008)	(0.00012)	32 mm Ø x ~7 or 19+ mm 17025
BS H2D	0.0010	0.0013	0.0004	0.0065	0.029	0.0012	(0.00009)	0.0006	0.0010	0.0005	0.0008	32 mm Ø x ~7 or 19+ mm 17025
BS H6B	(0.0015)	0.0016	.	0.0010	(0.1)	0.0007	.	(0.006)	(0.0007)	.	.	38 mm Ø x 19+ mm 17025
IARM 65C *	.	(0.001)	.	0.0026	0.027	(0.001)	.	.	(0.001)	(0.02)	(0.004)	31 mm Ø x 2 or 18 mm
IARM 65D	.	(0.001)	.	0.007	0.033	0.0005	.	.	(0.001)	(0.01)	(0.002)	31 mm Ø x 2 or 18 mm
HRT NI2014	25 mm Ø x 20 mm
BS H3B	.	0.0052	.	.	0.28	.	.	.	.	.	.	38 mm Ø x ~7 mm last of stock
BS H3C	(0.003)	0.0020	(0.0003)	0.0020	0.095	0.0013	.	(0.0003)	0.0019	(0.0001)	(0.005)	38 mm Ø x ~7 or 19+ mm 17025
IARM 69D	.	0.0044	.	0.0021	0.204	0.0012	0.00010	.	0.002	.	0.0074	31 mm Ø x 2 mm Ag: 1.2 ppm
IARM 329A *	.	(0.001)	.	(0.01)	0.13	(0.003)	(0.00003)	(0.0001)	(0.0003)	(0.01)	(0.001)	31 mm Ø x 2 or 18 mm
IARM 67C	.	(0.001)	.	0.0068	0.36	0.0016	.	(0.0003)	0.0014	(0.006)	(0.002)	31 mm Ø x 2 or 18 mm
IARM 328A *	.	0.0010	.	(0.001)	3.1	0.0006	(0.00001)	0.00024	(0.0001)	(0.003)	(0.003)	31 mm Ø x 2 or 18 mm

Number	As	B	Ca	Mg	Nb	O	Pb	Sb	Sn	Ta	Zr	Units
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Need a larger size?
Most BS items are
available in any height.

NICKEL ALLOY XRF SET

Part Number: BS NI-18

AVAILABLE INDIVIDUALLY

-7 mm discs **17025**

Grade	Number	Al	As	B	C	Co	Cr	Cu	Fe	Mg	Mn	Mo	N	Nb	Ni	O	P	Pb	S	Si	Sn	Ta	Ti	V	W	Zr
RA 333	BS 197A	0.18	.	0.0019	0.050	3.06	25.11	0.12	18.07	.	1.56	2.99	(0.052)	0.20	44.44	.	0.021	(0.0002)	<0.001	0.96	.	.	0.017	0.051	2.79	.
Alloy 20	BS 187D	0.0164	(0.0035)	0.0026	0.0337	0.089	19.91	3.52	[39.6]	(0.0009)	0.938	2.17	0.046	0.621	32.3	0.0026	0.0155	0.0019	0.0021	0.669	0.0085	0.0008	0.0027	0.073	0.086	(0.0012)
Nickel 200	BS 200A	0.0281	0.0015	0.0044	0.078	0.0564	0.0006	0.0038	0.074	0.0131	0.151	0.0004	0.0004	0.0004	99.54	0.0013	0.0007	(0.00005)	0.0037	0.0051	(0.0001)	(0.0003)	0.0427	0.0006	0.0005	(0.0004)
Monel 400	BS 400D	0.0231	(0.0001)	0.0009	0.130	0.032	0.0057	33.0	2.00	0.0217	0.993	0.0024	(0.00017)	(0.0001)	63.4	0.0008	(0.0010)	0.0004	0.0006	0.146	(0.00012)	(0.009)	0.064	(0.0002)	(0.0004)	(0.0003)
Monel® K500	BS 500D	2.98	0.0015	0.00021	0.152	0.0342	0.212	29.66	0.720	0.0112	0.678	0.0240	0.00017	0.0072	65.2	0.0007	0.0085	0.00028	0.0011	0.069	0.0004	(0.00005)	0.447	0.00211	0.0019	0.030
Inconel® 600	BS 600-6	0.288	.	0.0028	0.083	0.066	14.86	0.24	7.33	0.022	0.21	0.12	0.0078	0.14	76.0	.	0.007	.	0.001	0.31	(-0.003)	(-0.003)	0.24	0.023	.	.
Inconel® 625	BS 625D	0.21	0.0007	0.0019	0.048	0.041	22.33	0.019	3.81	.	0.069	8.74	0.0067	3.54	60.9	0.0012	0.0039	.	0.0004	0.072	(0.0006)	(0.004)	0.276	0.018	0.014	.
Inconel® 690	BS 690	0.26	.	.	0.025	0.076	30.10	0.28	9.49	.	0.20	0.16	.	0.19	58.5	.	0.011	.	0.0010	0.39	.	.	0.32	.	.	.
Inconel® 718	BS 718D	0.631	0.0011	0.0041	0.037	0.368	18.32	0.071	18.51	0.0038	0.100	3.00	0.0084	5.16	52.5	0.0015	0.0083	(0.00006)	0.0004	0.072	0.0020	(0.0022)	0.93	0.038	0.049	(0.002)
Inconel® 800	BS 800	0.279	0.0036	0.0032	0.073	0.054	19.90	0.323	46.0	(0.002)	0.789	0.195	0.0112	0.0183	31.29	(0.0009)	0.0161	0.00004	0.00036	0.560	0.0026	(0.001)	0.469	0.071	0.0056	0.0018
Inconel® 825	BS 825B	0.080	.	0.0025	0.010	0.26	21.87	1.72	31.45	.	0.51	2.74	0.0105	0.19	39.92	(0.004)	0.015	.	0.0010	0.24	.	.	0.82	0.049	0.166	.
Inconel® 925	BS 925	0.17	.	0.002	0.011	0.34	20.82	1.74	26.92	.	0.50	3.00	0.0042	0.23	43.53	(0.0075)	0.016	.	0.0020	0.11	(0.002)	.	2.20	0.03	0.47	.
Hastelloy B	BS H-1B	0.12	.	0.003	0.006	<0.02	<0.01	(0.01)	1.00	.	0.82	26.52	.	<0.005	[71.3]	.	0.003	.	0.0005	0.049	.	.	0.11	<0.01	.	.
Hastelloy C-276	BS H2C	0.124	0.0008	0.0008	0.0027	0.178	16.14	0.116	5.99	0.0061	0.415	15.36	0.0126	0.032	58.3	0.0012	0.0086	0.00014	0.00030	0.031	0.0011	Ca:4ppm	0.0172	0.0222	3.25	Sb:6ppm
Hastelloy X	BS H-3B	0.14	.	0.0052	0.078	1.96	22.23	0.27	19.92	.	0.11	8.84	.	0.28	44.9	.	0.013	.	0.0005	0.63	.	.	0.020	0.06	0.49	.
Hastelloy C-22	BS H-6A	0.24	.	0.0012	0.005	1.11	21.37	0.070	4.34	.	0.31	13.37	.	(0.029)	[55.8]	.	0.010	.	<0.002	(0.03)	0.003	.	0.007	0.17	3.09	.
Hastelloy G-30	BS H-8	0.18	.	0.0028	0.004	2.58	29.43	1.66	14.61	0.0059	1.10	5.02	.	0.69	Rem	.	(0.01)	.	<0.001	0.20	.	.	0.008	0.038	2.66	.

Nickel with brackets [] calculated by difference.

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ALLOY	ISO?	NUMBER	ALLOY	ISO?	NUMBER	ALLOY	ISO?	NUMBER
20	17025	BS 187D	904L		IARM 347A			
200	17025	BS 200-1	909		IARM 203A			
200	17025	BS 200-2	925		BS 925			
200	17025	BS 200-4	945		IARM 328A			
200	17025	BS 200A	AL6XN	17025	BS 189A			
200		IARM 187A	B1900		IARM 283A			
200		IARM 188A	CSMX-4		IARM 332A			
200		IARM 189A	Hastelloy		215X HB4			
200		IARM 190A	Hastelloy		215X HB5			
200		IARM 191A	Hastelloy B		215X HB1			
205	17025	BS 200-3	Hastelloy B		215X HB2			
330		IARM 7C	Hastelloy B		215X HB3			
400		212X 04400	Hastelloy B		BS H1B			
400		212X 4002	Hastelloy B	17025	BS H1C			
400		212X 4003	Hastelloy C		HRT Ni2012			
400	17025	BS 400D	Hastelloy C		SRM C2402			
400		BS 400-1	Hastelloy C-22	17025	BS H6B			
400		BS 400-2	Hastelloy C-22		HRT NI2014			
400		BS 400-3	Hastelloy C-22		IARM 65C			
400		SS 363/1	Hastelloy C-22		IARM 65D			
405 (R405)		BS 405	Hastelloy C-276		215X HC6			
405 (R405)	17025	BS 405A	Hastelloy C-276	17025	BS H2C			
405 (R405)		IARM 202A	Hastelloy C-276	17025	BS H2D			
500		212X 05500	Hastelloy G-30		IARM 67C			
500	17025	BS 500D	Hastelloy G-35		IARM 329A			
500+Si	17025	BS 500E	Hastelloy X		BS H3B			
600		28X 6001	Hastelloy X	17025	BS H3C			
600		28X 6002	Hastelloy X		IARM 69D			
600		28X 6003	Haynes 230	17025	BS H230			
600		28X 6004	Haynes 230		IARM 68D			
600		28X 6005	IN 100		IMZ 182			
600		BS 600-2	IN 100		SS 345			
600		BS 600-3	IN 100		SS 346A			
600		BS 600-4	Incoloy		23X DS2			
600		BS 600-5	Incoloy		23X DS4			
600		BS 600-6	Incoloy		23X DS5			
600		SRM 1244	Incoloy		HH 5157A			
602CA		IARM 338A	Incoloy		HH 5179A			
617		BS 617	Inconel		HH 5300A			
617		IARM 272A	Inconel		28X 6256			
625		28X 06625	Magnetic		SRM 1159			
625		28X 6251	Magnetic		SRM 1160			
625		28X 6254	Mar M 247		IMZ 202			
625		28X 6255	Monel		212X 4001			
625	17025	BS 625D	Monel		212X 4006			
625	17025	BS 625E	Monel		212X NA2			
625		ECRM 377-1	Monel		212X NA3			
625		ECRM 377-2	MP 35N		SRM 1775			
625		NCS HS41745	Nimonic 80A		22X 801			
690	17025	BS 690A	Nimonic 80A		22X 804			
713		SS 350	Nimonic 80A		22X 806			
718		28X 07718	Nimonic 80A		CT ISO122A			
718		28X 7181	Nimonic 90		22X 902			
718		28X 7182	Nimonic 90		22X 903			
718		28X 7185	Nimonic 90		22X 904			
718	17025	BS 718D	RA 333		BS 197A			
718		NCS HS41746	RA 333		BS 197B			
718		SRM 1249	Rene 41		IARM 325A			
718		SS 351	Rene 77		IARM 277A			
718		SS 351/1	Udimet 500		IARM 287A			
725		BS 725	Waspaloy		24X 07001			
725		IARM 274A	Waspaloy		24X 7201			
738		IMZ 183	Waspaloy	17025	BS 199B			
750	17025	BS 750C	Waspaloy		SRM 1243			
750		BS 750D						
750		HT 8209X						
750		HT 8211X						
800		23X 8004						
800	17025	BS 800						
800, 800HT	17025	BS 800A						
800, 800HT		IARM 58B						
800		SRM 1246						
801		HH 5196A						
825		13X 08825						
825		219X 08825A						
825	17025	BS 825E						
825		BS 825F						
825		HRT Ni2013						
825		IARM 59E						
825		SRM 1247						
901		SS 387/1						
903		SRM 1250						

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

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

Type	Comment	Al	B	C	Co	Cr	Cu	Fe	Mn	Mo	Nb
ACI CN-7M		.	.	<0.07	.	19.0-22.0	3.0-4.0	rem	<1.50	2.00-3.00	.
ACI CY-40		.	.	<0.40	.	14.0-17.0	.	<11.0	<1.50	.	.
ACI CZ-100		.	.	<1.00	.	.	<1.25	<3.00	<1.50	.	.
ACI HT		.	.	0.35-0.75	.	13.0-17.0	.	rem	<2.00	<0.50	.
ACI HT-30		.	.	0.25-0.35	.	13.0-17.0	.	rem	<2.00	<0.50	.
ACI HT-50		.	.	0.40-0.60	.	15.0-19.0	.	rem	<1.50	<0.50	.
ACI HT-50C		.	.	0.40-0.60	.	13.0-17.0	.	rem	<0.50	<0.50	0.75-1.25
ACI HU		.	.	0.35-0.75	.	17.0-21.0	.	rem	<2.00	<0.50	.
ACI HU-50		.	.	0.40-0.60	.	17.0-21.0	.	rem	<1.50	<0.50	.
ACI HW		.	.	0.35-0.75	.	10.0-14.0	.	rem	<2.00	<0.50	.
ACI HW-50		.	.	0.40-0.60	.	10.0-14.0	.	rem	<1.50	<0.50	.
ACI HX		.	.	0.35-0.75	.	15.0-19.0	.	rem	<2.00	<0.50	.
ACI HX-50		.	.	0.40-0.60	.	15.0-19.0	.	rem	<1.50	<0.50	.
AF2-1DA	Ta 1-2; B, N, O, Pb limits	4.20-4.80	0.01-0.02	0.30-0.35	9.50-10.50	11.5-12.5	.	<1.00	<0.10	2.50-3.50	.
AL-6X		.	.	<0.035	.	20.0-22.0	.	rem	<2.00	6.0-7.0	.
AL-6XN	N 0.18-0.25	.	.	<0.030	.	20.0-22.0	.	rem	<2.00	6.0-7.0	.
Allcorr		<1.50	.	<0.15	<12.0	27.0-33.0	.	.	.	8.0-12.0	<2.00
Alumel		1.75-2.25	.	<0.15	.	.	.	<0.50	2.00-3.00	.	.
ARMCO 20-45-5		.	.	<0.08	.	18.0-22.0	.	rem	3.0-7.0	1.5-3.0	<0.40
Astroloy M	Bi, N, Pb limits	3.85-4.15	0.020-0.030	0.02-0.06	16.0-18.0	14.0-16.0	<0.10	<0.50	<0.15	4.50-5.50	.
B-2		.	.	<0.02	<1.0	<1.0	.	<2.00	<1.00	26.0-30.0	.
B-3	Ni+Mo 94.0-98.0; Ta, V <0.20	<0.50	.	<0.01	<3.0	1.0-3.0	<0.20	1.0-3.0	<3.00	27.0-32.0	<0.20
B-4		0.10-0.50	.	<0.01	<2.5	0.5-1.5	<0.50	1.0-6.0	<1.50	26.0-30.0	.
B-10		<0.5	.	<0.01	<1.0	6.0-10.0	<0.50	5.0-8.0	<1.00	21.0-25.0	.
Be-Ni	Be 1.85-2.05	.	.	.	.	.	.	.	.	.	.
BNi-1	Se <0.005, Other <0.50	<0.05	2.75-3.50	0.6-0.9	<0.10	13.0-15.0	.	4.0-5.0	.	.	.
BNi-1a	Se <0.005, Other <0.50	<0.05	2.75-3.50	<0.06	<0.10	13.0-15.0	.	4.0-5.0	.	.	.
BNi-2	Se <0.005, Other <0.50	<0.05	2.75-3.50	<0.06	<0.10	6.0-8.0	.	2.5-3.5	.	.	.
BNi-3	Se <0.005, Other <0.50	<0.05	2.75-3.50	<0.06	<0.10	.	.	<0.50	.	.	.
BNi-4	Se <0.005, Other <0.50	<0.05	1.50-2.20	<0.06	<0.10	.	.	<1.50	.	.	.
BNi-5	Se <0.005, Other <0.50	<0.05	<0.03	<0.10	<0.10	18.5-19.5	.	.	.	.	.
BNi-5a	Se <0.005, Other <0.50	<0.05	1.0-1.5	<0.10	<0.10	18.5-19.5	.	<0.50	.	.	.
BNi-5b	Se <0.005, Other <0.50	<0.05	1.0-1.6	<0.06	<1.0	14.5-15.5	.	<1.00	.	.	.
BNi-6	Se <0.005, Other <0.50	<0.05	.	<0.01	<0.10	.	.	.	.	.	.
BNi-7	Se <0.005, Other <0.50	<0.05	<0.010	<0.08	<0.10	13.0-15.0	.	<0.20	<0.04	.	.
BNi-8	Se <0.005, Other <0.50	<0.05	.	<0.10	<0.10	.	4.0-5.0	.	21.5-24.5	.	.
BNi-9	Se <0.005, Other <0.50	<0.05	3.25-4.00	<0.06	<0.10	13.5-16.5	.	<1.50	.	.	.
BNi-10	Se <0.005, Other <0.50	<0.05	2.00-3.00	0.40-0.55	<0.10	10.0-13.0	.	2.5-4.5	.	.	.
BNi-11	Se <0.005, Other <0.50	<0.05	2.20-3.10	0.30-0.50	<0.10	9.0-11.75	.	2.5-4.5	.	.	.
BNi-12	Se <0.005, Other <0.50	<0.05	<0.02	<0.06	<0.10	24.0-26.0	.	<0.20	.	.	.
BNi-13	Se <0.005	<0.05	2.75-3.50	<0.06	<0.10	7.0-9.0	2.0-3.0	<0.40	.	1.5-2.5	1.5-2.35

Type	Ni	P	S	Si	Ti	W	Zr
ACI CN-7M	27.5-30.5	.	.	<1.50	.	.	.
ACI CY-40	rem	.	.	<3.00	.	.	.
ACI CZ-100	rem	.	.	<2.00	.	.	.
ACI HT	33.0-37.0	<0.040	<0.040	<2.50	.	.	.
ACI HT-30	33.0-37.0	<0.040	<0.040	<2.50	.	.	.
ACI HT-50	33.0-37.0	<0.040	<0.040	0.50-2.00	.	.	.
ACI HT-50C	33.0-37.0	.	.	.	.	.	.
ACI HU	37.0-41.0	<0.040	<0.040	<2.50	.	.	.
ACI HU-50	37.0-41.0	<0.040	<0.040	0.50-2.00	.	.	.
ACI HW	58.0-62.0	<0.040	<0.040	<2.50	.	.	.
ACI HW-50	58.0-62.0	<0.040	<0.040	0.50-2.00	.	.	.
ACI HX	64.0-68.0	<0.040	<0.040	<2.50	.	.	.
ACI HX-50	64.0-68.0	<0.040	<0.040	0.50-2.00	.	.	.
AF2-1DA	rem	<0.015	<0.015	<1.00	2.75-3.25	5.50-6.50	0.05-0.15
AL-6X	23.5-25.5	<0.030	<0.030	<1.00	.	.	.
AL-6XN	23.5-25.5	<0.040	<0.030	<1.00	.	.	.
Allcorr	rem	.	.	.	<1.50	<4.00	.
Alumel	rem	.	.	<1.60	.	.	.
ARMCO 20-45-5	43.0-49.0	<0.045	<0.030	<1.00	.	.	.
Astroloy M	rem	<0.015	<0.015	<0.20	3.35-3.65	<0.05	<0.06
B-2	rem	<0.040	<0.030	<0.10	.	.	.
B-3	>65.0	<0.030	<0.010	<0.10	<0.20	<3.00	<0.10
B-4	rem	<0.040	<0.010	<0.05	.	.	.
B-10	rem	<0.025	<0.010	<0.10	.	.	.
Be-Ni	rem	.	.	.	0.4-0.6	.	.
BNi-1	rem	<0.020	<0.020	4.0-5.0	<0.05	.	<0.05
BNi-1a	rem	<0.020	<0.020	4.0-5.0	<0.05	.	<0.05
BNi-2	rem	<0.020	<0.020	4.0-5.0	<0.05	.	<0.05
BNi-3	rem	<0.020	<0.020	4.0-5.0	<0.05	.	<0.05
BNi-4	rem	<0.020	<0.020	3.0-4.0	<0.05	.	<0.05
BNi-5	rem	<0.020	<0.020	9.75-10.5	<0.05	.	<0.05
BNi-5a	rem	<0.020	<0.020	7.0-7.5	<0.05	.	<0.05
BNi-5b	rem	<0.020	<0.020	7.0-7.5	<0.05	.	<0.05
BNi-6	rem	10.0-12.0	<0.020	.	<0.05	.	<0.05
BNi-7	rem	9.7-10.5	<0.020	<0.10	<0.05	.	<0.05
BNi-8	rem	<0.020	<0.020	6.0-8.0	<0.05	.	<0.05
BNi-9	rem	<0.020	<0.020	.	<0.05	.	<0.05
BNi-10	rem	<0.020	<0.020	3.0-4.0	<0.05	15.0-17.0	<0.05
BNi-11	rem	<0.020	<0.020	3.25-4.25	<0.05	11.50-12.75	<0.05
BNi-12	rem	9.0-11.0	<0.020	<0.10	<0.05	.	<0.05
BNi-13	rem	<0.020	<0.020	3.8-4.8	<0.05	.	<0.05

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Type	Comment	Al	B	C	Co	Cr	Cu	Fe	Mn	Mo	Nb
Comm.Pure Ni	Mg <0.005	.	.	<0.02	<0.10	<0.005	<0.01	<0.05	<0.003	.	.
Comm.Pure Ni	Mg, N <0.001; O <0.025	<0.001	.	<0.006	.	<0.001	<0.02	<0.015	<0.001	.	.
Creusot UR SB 8	N 0.17-0.25	.	.	<0.020	.	24.0-26.0	1.0-2.0	rem	<2.00	4.7-5.7	.
CT15C	.	.	.	0.05-0.15	.	19.0-21.0	.	rem	0.15-1.50	.	0.50-1.50
D979	Zr <0.05	0.75-1.30	0.008-0.015	<0.08	.	14.0-16.0	.	rem	<0.75	3.75-4.50	.
Eatonite	.	.	.	2.4	10.0	29.0	.	<6.50	.	.	.
Eatonite 3	.	.	.	1.80-2.20	.	28.0-30.0	.	1.0-8.0	<1.00	4.0-6.0	.
Eatonite 5	.	.	.	1.80-2.20	.	28.0-30.0	.	1.0-8.0	<1.00	7.0-9.0	.
ER330	.	.	.	0.18-0.25	.	15.0-17.0	<0.75	rem	1.0-2.5	<0.75	.
ERNi-C1	Other <1.00	.	.	<1.00	.	.	<4.00	<4.00	<2.50	.	.
ERNiCr-6	Pb <0.010	<0.40	.	0.08-0.15	.	19.0-21.0	<0.50	<2.00	<1.00	.	.
ERNiCr-A	Se <0.005	.	2.00-3.00	0.30-0.60	<1.50	8.0-14.0	.	1.25-3.25	.	.	.
ERNiCr-C	Se <0.005	.	2.00-4.00	0.40-0.80	<1.25	10.0-16.0	.	3.0-5.0	.	.	.
ERNiCr-C	Se <0.005	.	2.50-4.50	0.50-1.00	<1.0	12.0-18.0	.	3.5-5.5	.	.	.
ERNiCr-D	.	.	0.35-0.60	0.6-1.1	<0.10	8.0-12.0	.	1.0-5.0	.	.	.
ERNiCr-E	Sn 0.5-0.9	.	0.7-1.4	0.1-0.5	<0.10	15.-20.	.	3.5-7.5	.	.	.
ERNiCrMo-5A	V <0.40	.	.	<0.12	.	14-18	.	4.0-7.0	<1.00	14-18	.
ERNi-Cu-8	Pb <0.010	2.0-4.0	.	<0.25	.	.	rem	<2.00	<1.50	.	.
ERNiFeMn-C1	Other <1.00	<1.00	.	<0.50	.	.	<2.50	rem	10.0-14.0	.	.
ERNiMo-8	.	.	.	<0.10	.	0.5-3.5	<0.50	.	<1.00	18.0-21.0	.
ERNiMo-9	.	<1.00	.	<0.10	.	.	0.3-1.3	.	<1.00	19.0-22.0	.
Filler 72	Other <0.50	.	.	0.01-0.10	.	42.0-46.0	<0.50	<0.50	<0.20	.	.
FM 52	Al+Ti <1.50	<1.10	.	<0.04	.	28.0-31.5	<0.30	7.0-11.0	<1.00	<0.50	<0.10
FM60	.	<1.25	.	<0.15	.	.	rem	<2.50	<4.00	.	.
FM61	.	<1.50	.	<0.15	.	.	<0.25	<1.00	<1.00	.	.
FM65	<0.20	.	.	<0.05	.	19.5-23.5	1.5-3.0	>22.0	<1.00	2.5-3.5	.
FM69	0.40-1.00	.	.	<0.08	.	14.0-17.0	<0.50	5.0-9.0	<1.00	>70.0	0.7-1.2
FM82	.	.	.	<0.10	.	18.0-22.0	<0.50	<3.00	2.5-3.5	.	2.0-3.0
FM92	.	.	.	<0.08	.	14.0-17.0	<0.50	<8.00	2.00-2.75	.	.

Type	Ni	P	S	Si	Ti	W
Comm.Pure Ni	>99.9	.	<0.003	<0.005	<0.005	.
Comm.Pure Ni	rem	.	<0.0008	<0.001	.	.
Creusot UR SB 8	24.0-26.0	<0.025	<0.010	<0.50	.	.
CT15C	31.0-34.0	<0.030	<0.030	0.50-1.50	.	.
D979	42.0-48.0	<0.015	<0.015	<0.75	2.70-3.30	3.75-4.50
Eatonite	39.0	.	.	0.70	.	15.0
Eatonite 3	rem	<0.030	<0.030	0.8-1.2	.	.
Eatonite 5	rem	<0.030	<0.030	0.80-1.20	.	.
ER330	34.0-37.0	<0.030	<0.030	0.30-0.65	.	.
ERNi-C1	rem	.	<0.030	<0.75	.	.
ERNiCr-6	>75.0	<0.030	<0.015	<0.30	0.15-0.50	.
ERNiCr-A	rem	.	.	1.25-3.25	.	.
ERNiCr-C	rem	.	.	3.0-5.0	.	.
ERNiCr-C	rem	.	.	3.5-5.5	.	.
ERNiCr-D	rem	.	.	4.0-6.6	.	1.0-3.0
ERNiCr-E	.	.	.	5.5-8.0	.	0.5-1.5
ERNiCrMo-5A	rem	.	.	<1.00	.	3.0-5.0
ERNi-Cu-8	63.0-70.0	<0.030	<0.015	<1.00	0.25-1.00	.
ERNiFeMn-C1	35.0-45.0	.	<0.030	<1.00	.	.
ERNiMo-8	>60.0	<0.015	<0.015	<0.50	.	2.0-4.0
ERNiMo-9	>65.0	<0.015	<0.015	<0.50	.	2.0-4.0
Filler 72	rem	<0.020	<0.015	<0.20	0.3-1.0	.
FM 52	rem	.	<0.015	<0.50	<1.00	.
FM60	62.0-69.0	<0.020	<0.015	<1.25	1.5-3.0	.
FM61	>93.0	<0.030	<0.015	<0.75	2.0-3.5	.
FM65	38.0-46.0	<0.030	<0.030	<0.50	0.60-1.2	.
FM69	.	<0.030	<0.015	<0.50	2.00-2.75	.
FM82	>67.0	<0.030	<0.015	<0.50	<0.75	.
FM92	>67.0	<0.030	<0.015	<0.35	2.50-3.50	.

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Type	Comment	Al	B	C	Co	Cr	Cu	Fe	Mn	Mo
Hastelloy B	V <0.60	.	.	<0.12	<2.5	<1.00	.	<6.00	<1.00	26.0-33.0
Hastelloy C	V <0.35	.	.	<0.08	<2.5	14.5-16.5	.	4.0-7.0	<1.00	15.0-17.0
Hastelloy C-4	.	.	.	<0.015	<2.0	14.0-18.0	<3.00	.	<1.00	14.0-17.0
Hastelloy C-22	V <0.35	.	.	<0.015	<2.5	20.0-22.5	.	2.0-6.0	<0.50	12.5-14.5
Hastelloy C-276	V <0.35	.	.	<0.02	<2.5	14.5-16.5	.	4.0-7.0	<1.00	15.0-17.0
Hastelloy C-2000	.	<0.50	.	<0.010	<2.0	22.0-24.0	1.3-1.9	<3.00	<0.50	15.0-17.0
Hastelloy F	.	.	.	<0.05	<2.5	21.0-23.0	.	rem	1.0-2.0	5.5-7.5
Hastelloy G	.	.	.	<0.05	<2.5	21.0-23.5	1.5-2.5	18.0-21.0	1.0-2.0	5.5-7.5
Hastelloy G-2	.	.	.	<0.03	.	23.0-26.0	0.7-1.2	rem	<1.00	5.0-7.0
Hastelloy G-3	Nb+Ta <0.50	.	.	<0.015	<5.0	21.0-23.5	1.5-2.5	18.0-21.0	<1.00	6.0-8.0
Hastelloy G-30	.	.	.	<0.03	<5.00	28.0-31.5	1.0-2.4	13.0-17.0	<1.50	4.0-6.0
Hastelloy G-50	.	.	.	<0.015	<2.5	19.0-21.0	<0.50	15.0-20.0	<1.00	8.0-10.0
Hastelloy H-9M	.	.	.	<0.03	<5.0	20.5-23.0	.	17.0-20.0	<1.00	8.0-10.0
Hastelloy N	V <0.50	<0.50	<0.010	0.04-0.08	<0.20	6.0-8.0	<0.35	<5.00	<1.00	15.0-18.0
Hastelloy S	La 0.01-0.10	0.10-0.50	<0.015	<0.02	<2.0	14.5-17.0	<0.35	<3.00	0.30-1.00	14.0-16.5
Hastelloy W	V <0.60	.	.	<0.12	.	4.00-6.00	.	4.0-7.0	<1.00	23.0-26.0
Hastelloy X	.	.	.	0.05-0.15	0.5-2.5	20.5-23.0	.	17.0-20.0	<1.00	8.0-10.0
Haynes 20 Mod	.	.	.	<0.05	.	21.0-23.0	.	rem	<2.50	4.0-6.0
Haynes 230	La <0.050	0.20-0.50	<0.003	0.05-0.15	<3.0	20.0-24.0	<0.50	<3.00	0.3-1.0	1.0-3.0
Haynes 242	.	<0.50	<0.006	<0.03	<1.0	7.0-9.0	<0.50	<2.00	<0.80	24.0-26.0
HL	.	.	.	0.20-0.60	.	28.0-32.0	.	rem	<2.00	<0.50
HL-30	.	.	.	0.25-0.35	.	28.0-32.0	.	rem	<1.50	<0.50
HL-40	.	.	.	0.35-0.45	.	28.0-32.0	.	rem	<1.50	<0.50
HP	.	.	.	0.35-0.75	.	24.0-28.0	.	rem	<2.00	<0.50
HR-120	N 0.15-0.30	<0.40	<0.010	0.02-0.1	<3.0	23.0-27.0	<0.50	rem	<1.50	<2.50
HR-160	.	.	.	<0.15	27.0-33.0	26.0-30.0	.	<3.50	<1.50	<1.0
HT	.	.	.	0.35-0.75	.	15.0-19.0	.	rem	<2.00	.
HT-30	.	.	.	0.25-0.35	.	13.0-17.0	.	rem	<2.00	<0.50
INCO 032	.	.	.	<0.03	.	20.0-23.0	.	rem	<1.00	4.0-5.0
Inconle FM62	.	.	.	<0.035	.	14.0-17.0	<0.50	6.0-10.0	<1.00	.
JS 700	Pb <0.005, Sn <0.035	.	.	<0.04	.	19.0-23.0	<0.50	rem	<2.00	4.3-5.0
K500	.	2.30-3.15	.	<0.25	.	.	rem	<2.00	<1.50	.
M220C	Be 1.80-2.30	.	.	0.30-0.50	.	.	.	.	.	.
M252	.	0.75-1.25	0.003-0.01	0.10-0.20	9.0-11.0	18.0-20.0	.	<5.00	<0.50	9.0-10.5
MA754	Y2O3 0.5-0.7	0.20-0.50	.	<0.05	.	19.0-23.0	.	<2.50	.	.
MAR-M-Alloy	Hf 1.50-2.0, Ta 1.25-1.75	5.25-5.75	0.01-0.02	0.13-0.17	9.0-10.0	8.0-10.0	<0.10	<1.00	<0.20	2.25-2.75
MAT21	Ta 1.5-2.2, V <0.35	.	.	<0.015	<1.0	18.0-20.0	<1.00	<0.50	<0.50	18.0-20.0

Type	Nb	Ni	P	S	Si	Ta	Ti	W	Zr
Hastelloy B	.	rem	<0.040	<0.030	<1.00	.	.	.	.
Hastelloy C	.	rem	<0.040	<0.030	<1.00	.	.	3.0-4.5	.
Hastelloy C-4	.	rem	<0.040	<0.030	<0.08	.	<0.70	.	.
Hastelloy C-22	.	rem	<0.020	<0.020	<0.08	.	.	2.5-3.5	.
Hastelloy C-276	.	rem	<0.030	<0.030	<0.08	.	.	3.0-4.5	.
Hastelloy C-2000	.	rem	<0.025	<0.010	<0.08	.	.	.	.
Hastelloy F	1.8-2.5	44.0-47.0	<0.040	<0.010	<1.00	.	<0.03	<1.00	.
Hastelloy G	1.75-2.50	rem	<0.040	<0.030	<1.0	.	.	<1.00	.
Hastelloy G-2	.	47.0-52.0	<0.030	<0.030	<1.00	.	0.7-1.5	.	.
Hastelloy G-3	.	rem	<0.040	<0.030	<1.00	.	.	<1.00	.
Hastelloy G-30	0.3-1.5	rem	<0.040	<0.020	<0.08	.	.	1.5-4.0	.
Hastelloy G-50	<0.50	>50.0	<0.010	<0.015	<1.00	.	.	<1.00	.
Hastelloy H-9M	.	rem	<0.040	<0.030	<1.00	.	.	1.0-2.0	.
Hastelloy N	.	rem	<0.015	<0.020	<1.00	.	.	<0.50	.
Hastelloy S	.	rem	<0.020	<0.015	0.20-0.75	.	.	<1.00	.
Hastelloy W	.	rem	<0.050	<0.050	<1.00	.	.	.	.
Hastelloy X	.	rem	<0.040	<0.030	<1.00	.	.	0.2-1.0	.
Haynes 20 Mod	.	25.0-27.0	<0.040	<0.030	<1.0	.	4\mtC min	.	.
Haynes 230	.	rem	<0.030	<0.015	0.25-0.75	.	.	13.0-15.0	.
Haynes 242	.	rem	<0.030	<0.015	<0.80	.	.	.	.
HL	.	16.0-22.0	<0.040	<0.040	<2.00	.	.	.	.
HL-30	.	18.0-22.0	<0.040	<0.040	0.50-2.00	.	.	.	.
HL-40	.	18.0-22.0	<0.040	<0.040	0.50-2.00	.	.	.	.
HP	.	35.0-37.0	<0.040	<0.040	<2.50	.	.	.	.
HR-120	0.4-0.9	35.0-39.0	<0.040	<0.030	<1.00	.	<0.20	<2.50	.
HR-160	<1.00	rem	<0.030	<0.015	2.4-3.0	.	0.20-0.80	<1.00	.
HT	.	33.0-37.0	<0.040	<0.050	<2.50	.	.	.	.
HT-30	.	33.0-37.0	<0.040	<0.040	<2.50	.	.	.	.
INCO 032	.	30.0-34.0	<0.030	<0.005	<0.05	.	.	.	.
Inconle FM62	1.0-3.0	>72.0	<0.030	<0.015	<0.50	.	.	.	.
JS 700	8*C <0.50	24.0-26.0	<0.040	<0.030	<1.00	.	.	.	.
K500	.	63.0-70.0	.	<0.010	<0.05	.	0.35-0.85	.	.
M220C	.	rem	.	.	.	.	.	.	.
M252	.	rem	<0.015	<0.015	<0.50	.	2.25-2.75	.	.
MA754	.	rem	.	.	.	.	0.3-0.6	.	.
MAR-M-Alloy	.	rem	.	<0.015	<0.20	1.25-1.75	1.25-1.75	9.0-11.0	0.03-0.08
MAT21	.	rem	<0.020	<0.020	<0.08

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Type	Comment	Al	B	C	Co	Cr	Cu	Fe	Mn
Ni-20 Cr +Nb		.	.	<0.15	.	19.0-21.0	.	<1.00	<2.50
NIC 52		.	.	<0.03	.	23.0-27.0	0.5-1.0	rem	<1.00
NIC42M		.	.	<0.03	.	20.0-23.0	1.5-3.0	rem	<1.00
Nichrome		.	.	<0.15	.	14.0-18.0	.	rem	<1.00
Nichrome V		.	.	<0.15	.	19.0-21.0	.	<1.00	<2.50
Nicofer 45	0.05-0.15 rare earths with 50% Ce	.	.	0.05-0.12	.	26.0-29.0	<0.30	21.0-25.0	<1.00
Nicofer 6219Si		<0.50	.	<0.05	<1.0	18.0-22.0	<0.50	2.0-4.0	<0.50
Ni-Cr 30		<0.20	.	<0.15	.	29.0-31.0	.	<1.00	<0.10
Nicofer 5020hMo	N 0.05-0.20, Other <0.50	0.50-0.50	.	<0.03	.	18.0-21.0	.	12.0-16.0	<0.50
Nicofer 6025 HT	Y 0.05-0.12	1.8-2.4	.	0.15-0.25	.	24.0-26.0	<0.10	8.0-11.0	<0.15
Ni-Cu		.	.	<0.04	.	.	28.0-34.0	<2.50	<2.00
Nimonic 263	Al+Ti 2.4-2.8	0.30-0.60	.	0.04-0.08	19.0-21.0	19.0-21.0	<0.20	<0.70	<0.60
Nimonic 75		.	.	0.08-0.15	.	18.0-21.0	<0.50	<5.00	<1.00
Nimonic 80A		1.0-1.8	<0.008	<0.10	<2.0	18.0-21.0	<0.20	<3.00	<1.00
Nimonic 90		0.8-2.0	.	<0.13	15.0-21.0	18.0-21.0	.	<3.00	<1.00
Ni-Span-C 902		0.30-0.80	.	<0.06	.	4.90-5.75	.	rem	<0.80
Nitiono 55	H <0.005, O <0.05	.	.	<0.07	<0.05	<0.01	<0.01	<0.05	.
PH3	Mo+0.5W = 2.5-5.5	<2.00	.	<0.03	.	18.0-27.0	.	rem	<1.00
PH6		<2.00	.	<0.03	.	12.0-22.0	.	rem	<1.00
PH7		<0.35	.	<0.03	.	14.0-19.0	.	rem	<1.00
Pyromet 31		1.00-1.70	0.003-0.007	0.03-0.06	.	22.0-23.0	.	rem	<0.20
Pyromet 31V		1.15-1.40	.	0.03-0.06	<1.0	22.3-22.9	.	rem	.
R405		.	.	<0.30	.	.	rem	<2.50	<2.00
RA 330	Pb <0.005, Sn <0.025	.	.	<0.08	.	17.0-20.0	<1.00	rem	<2.00
RA 330-04		.	.	0.18-0.29	.	17.0-20.0	<0.50	rem	4.25-6.5
RA 330TX	Pb <0.005, Sn <0.025	0.10-0.50	.	0.05-0.10	.	17.0-20.0	<1.00	rem	<2.00
RA 333	Pb <0.025, Sn <0.025	.	.	<0.08	2.5-4.0	24.0-27.0	<0.50	rem	<2.00
Rene 41		1.40-1.80	0.003-0.010	<0.12	10.0-12.0	18.0-20.0	.	<5.00	<0.10
Sanicro 28		.	.	<0.03	.	26.0-28.0	0.6-1.4	rem	<2.50
SM2035		.	.	<0.03	.	20.5-23.5	<0.70	rem	<1.00
SM2050		.	.	<0.02	.	20.0-23.0	0.25-1.25	rem	<1.00
SM2060Mo		.	.	<0.03	.	19.0-22.0	0.25-1.25	rem	<1.50
SM2550		.	.	<0.03	.	23.0-26.0	<1.20	rem	<1.00
Udimet 500		2.05-3.25	0.003-0.01	<0.15	13.00-20.00	15.0-20.0	<0.15	<4.00	<0.75
Waspaloy		1.20-1.60	0.003-0.01	0.03-0.10	12.00-15.00	18.0-21.0	<0.50	<2.00	<1.00
W-Ni-3		.	.	<0.15	.	.	<0.25	<0.60	<0.35
W-NiAl-1		4.0-6.0	.	.	.	.	.	.	.
W-NiAl-2	Other <1.00	17.0-27.0	.	.	.	.	.	.	.
W-NiCrFe-2		.	.	<0.10	.	14.0-7.0	<0.50	6.0-10.0	<1.00
W-NiCrMo	Other 3.0-4.0+Z86	.	.	.	.	21.0-23.0	.	1.0-2.0	.
W-NiCrTi		.	.	.	.	44-46	.	.	.
X750		0.40-1.00	.	<0.08	.	14.0-17.0	<0.50	5.0-9.0	<1.00
X782	nominal concentrations	.	.	2.00	0.50	26.00	.	4.00	0.30

Type	Mo	Nb	Ni	P	S	Si	Ti	W	Zr
Ni-20 Cr +Nb	.	0.75-1.50	rem	.	<0.010	0.75-1.60	.	.	.
NIC 52	6.0-8.0	.	48.0-56.0	<0.030	<0.003	.	0.6-1.5	.	.
NIC42M	5.0-4.0	.	40.0-44.0	<0.030	<0.003	<0.50	0.6-1.2	.	.
Nichrome	.	.	>57.0	.	<0.010	0.75-1.60	.	.	.
Nichrome V	.	.	rem	.	<0.010	0.75-1.60	.	.	.
Nicofer 45	.	.	>45.0	<0.020	<0.010	2.5-3.0	.	.	.
Nicofer 6219Si	7.0-9.0	.	rem	<0.020	<0.010	0.70-1.10	<0.50	.	.
Ni-Cr 30	.	.	rem	<0.030	<0.010	0.75-1.60	.	.	.
Nicofer 5020hMo	9.5-12.5	0.05-0.60	rem	<0.020	<0.010	<0.50	.	0.05-2.5	.
Nicofer 6025 HT	.	.	rem	<0.020	<0.010	<0.50	0.1-0.2	.	0.01-0.10
Ni-Cu	.	.	>63.0	.	<0.025	<0.50	.	.	.
Nimonic 263	5.6-6.1	.	rem	<0.015	<0.007	<0.40	1.9-2.4	.	.
Nimonic 75	.	.	rem	.	.	<1.00	0.20-0.60	.	.
Nimonic 80A	.	.	rem	<0.045	<0.015	<1.00	1.8-2.7	.	.
Nimonic 90	.	.	rem	.	.	<1.50	1.8-3.0	.	.
Ni-Span-C 902	.	.	41.0-43.5	<0.040	<0.040	<1.0	2.20-2.75	.	.
Nitiono 55	.	<0.025	54.0-57.0	.	.	.	rem	.	.
PH3	2.5-5.5	2.5-6.0	45.0-60.0	<0.030	<0.010	<0.50	<2.00	<0.50	.
PH6	9.0-15.0	4.0-6.0	50.0-60.0	<0.030	<0.010	<0.50	<1.00	0.5-2.5	.
PH7	2.5-5.5	<0.10	34.0-42.0	<0.030	<0.010	<0.50	.	2.0-3.0	.
Pyromet 31	1.70-2.30	0.6-1.2	55.0-58.0	<0.015	<0.015	<0.20	2.10-2.60	.	.
Pyromet 31V	1.70-2.30	0.75-0.95	55.0-58.0	<0.015	<0.015	<0.20	2.10-2.40	.	.
R405	.	.	63.0-70.0	.	0.025-0.060	<0.50	.	.	.
RA 330	.	.	34.0-37.0	<0.030	<0.030	0.75-1.50	.	.	.
RA 330-04	<0.70	.	33.0-37.0	<0.025	<0.020	0.65-1.30	.	.	.
RA 330TX	.	.	34.0-37.0	<0.030	<0.030	0.75-1.50	0.20-0.60	.	.
RA 333	2.50-4.00	.	44.0-47.0	<0.030	<0.030	0.75-1.50	.	2.5-4.0	.
Rene 41	9.0-10.5	.	rem	.	<0.015	<0.50	3.0-3.3	.	.
Sanicro 28	3.0-4.0	.	30.0-34.0	<0.030	<0.030	<1.00	.	.	.
SM2035	4.0-5.0	.	33.0-38.0	<0.030	<0.030	<0.75	.	0.2-0.8	.
SM2050	10.1-12.0	.	50.0-54.0	<0.030	<0.005	<0.09	.	0.25-1.25	.
SM2060Mo	12.0-14.0	0.50-1.25	54.0-60.0	<0.030	<0.005	<0.50	.	0.25-1.25	.
SM2550	6.0-9.0	.	47.0-52.0	<0.030	<0.030	<1.00	<0.69	<3.00	.
Udimet 500	3.0-5.0	.	rem	<0.015	<0.015	<0.75	2.50-3.25	.	.
Waspaloy	3.50-5.00	.	rem	<0.030	<0.030	<0.75	2.75-3.25	.	0.02-0.12
W-Ni-3	.	.	>97.0	.	<0.040	<0.50	.	.	.
W-NiAl-1	.	.	rem	.	.	.	.	.	.
W-NiAl-2	.	.	rem	.	.	.	.	.	.
W-NiCrFe-2	.	.	>72.0	.	<0.020	<0.50	.	.	.
W-NiCrMo	9.0-11.0	.	rem
W-NiCrTi	.	.	rem	.	.	.	3.0-4.0	.	.
X750	.	0.7-1.2	>70.0	.	<0.010	<0.50	2.25-2.75	.	.
X782	.	.	rem	.	.	0.30	.	8.75	.

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