INDEX

RM BISMUTH BASE and FUSIBLE SOLDER ALLOYS

cast ~40 mm Ø x ~15 mm

Number	Bi	Cd	In	Pb	Sn	Ag	Al	As	Au	Co	Cu	Fe	Hg	Ni	Sb	Zn	Other
95X BIS40P3	60.04	0.0051	1.01	0.106	38.24	0.29	0.034	(0.005)	0.0094	0.0158	0.10	0.014	0.024	0.032	0.020	0.0010	Ge: (0.006)
95X BIS40P4	58.00	0.0092	2.02	0.210	38.24	(0.70)	0.062	(0.007)	0.009	0.0314	0.211	0.047	0.047	0.073	0.144	0.0031	Ge: (0.009)
95X BIS40 P1	57.4	0.0050	0.0164	0.043	42.3	0.035	.	0.0101	.	.	0.0670	(0.001)	.	.	0.092	0.011	
95X 174	57.1	0.0089	26.08	0.082	16.70	0.0075	.	.	.	.	0.0030	.	.	.	0.086	0.037	Melt ‘C: 79
95X 255	55.7	0.0065	0.010	43.7	0.24	0.0019	.	.	.	.	0.045	.	.	.	0.32	0.035	Melt ‘C: 124
95X BIS40P2	55.25	0.0008	0.0049	0.020	44.66	0.005	0.0021	0.0019	0.0006	0.0012	0.0026	0.0013	(0.0016)	0.0020	0.005	0.0016	Ge: (0.0005)
95X 158	50.2	9.6	0.006	27.0	13.5	0.002	.	.	.	.	0.048	.	.	.	0.057	0.044	Melt ‘C: 70
95X 136	48.8	0.0092	21.49	18.0	12.05	0.0056	.	.	.	.	0.0028	.	.	.	0.022	0.031	Melt ‘C: 58
95X 117	45.3	4.95	18.72	23.1	8.02	0.0043	.	.	.	.	0.010	.	.	.	0.010	0.0056	Melt ‘C: 47
95X PBS40P1	13.8	0.0043	0.005	(43.6)	42.6	0.011	(0.0006)	0.005	.	.	0.025	(0.0006)	.	.	0.016	0.0010	
95X CDS50 P1	0.13	18.1	0.092	31.0	50.1	0.030	<0.002	0.027	.	.	0.26	(0.0022)	.	.	0.113	0.007	Melt ‘C: 145

RM CADMIUM ALLOY

Number	Cd	Sn	Units
95X SC34	(65.99)	34.05	40 mm Ø x 15 mm

CRM CADMIUM SETS

AVAILABLE IN SETS ONLY, AS GROUPED

Number	As	Cu	Ni	Pb	Sb	Sn	Ti	Set Size
VS 18-95	.	0.0023	0.0010	0.0060	.	.	0.0011	
VS 19-95	.	0.0039	0.0018	0.011	.	.	0.0021	
VS 20-95	.	0.0068	0.00044	0.022	.	.	0.0047	40 mm x 40 mm x 25 mm
VS 21-95	.	0.013	0.0043	0.047	.	.	0.0091	
VS 22-95	.	0.024	0.011	0.12	.	.	0.023	
IMN K1	(0.00030)	.	0.0086	.	0.0064	0.0061	.	
IMN K2	0.0012	.	0.018	.	0.0038	0.0032	.	
IMN K3	0.0010	.	0.063	.	0.0010	0.00065	.	40 mm Ø x 25 mm
IMN K4	0.0056	.	0.11	.	0.0011	0.00091	.	
IMN K5	0.0014	.	0.0054	.	0.00017	.	.	

CRM CHROMIUM ALLOY

~40 mm Ø x ~15 mm

Number	C	Co	Cr	Cu	Fe	Mn	Mo	N	Nb	Ni	P	S	Si
219X 20500	0.0486	0.016	49.99	0.0103	3.65	0.710	0.082	0.175	0.214	43.88	0.0026	0.0100	1.24

COBALT ALLOYS

= class, where 1 = CRM and 2 = rm analysis listed in mass %

#	Number	Cr	Fe	Mn	Mo	Nb	Ni	W	Al	C	Cu	P	S	Si	Ti	Co
1	112X 14943	30.64	1.23	1.20	7.94	0.119	0.138	0.060	(0.024)	0.129	0.229	0.006	0.026	0.58	.	.
2	IARM 208B	30.0	1.17	0.75	6.63	0.06	0.42	0.03	0.04	0.100	0.03	0.004	0.0009	0.63	0.029	60.0
1	119X ST3	29.8	3.10	1.09	0.353	.	2.55	12.1	.	2.39	0.078	.	0.063	0.794	.	.
2	112X 14942	28.47	1.09	0.46	6.22	.	0.29	1.67	0.18	0.090	.	.	.	1.02	.	.
1	ECRM 378-1D	28.22	0.606	0.0579	0.053	.	0.617	4.43	.	1.181	.	(0.0023)	0.0055	1.172	.	63.52
2	IARM 208C	27.55	0.29	0.53	6.12	0.011	0.63	0.02	0.07	0.052	0.01	0.008	0.0004	0.62	0.012	64.0
2	BS 173	27.5	0.19	0.76	5.62	(0.002)	0.14	.	(0.04)	0.046	(0.008)	(0.003)	0.001	0.61	(0.004)	65.0
2	CT ISO074A	27.12	(0.93)	0.78	5.47	.	0.150	<0.01	.	0.089	0.005	0.002	0.002	0.59	.	64.87
2	113X 405	26.7	1.30	0.68	.	.	10.79	7.65	.	0.48	.	0.002	0.005	0.76	.	.
2	IARM 64C	25.4	2.99	0.79	4.72	0.016	9.47	2.39	0.138	0.064	0.019	0.0064	0.0004	0.24	0.007	53.4
2	IARM 64B	25.26	3.02	0.78	4.77	(0.018)	9.06	2.12	0.12	0.062	0.020	0.005	(0.0004)	0.27	0.011	54.2
2	113X 401	25.24	0.73	0.20	.	.	11.74	7.09	.	0.56	.	.	.	1.22	.	.
1	112X 14937	25.17	2.28	0.407	7.16	0.191	2.88	2.84	0.012	0.340	0.093	0.009	0.0242	1.18	0.017	.
2	113X 403	25.03	1.06	0.69	.	.	10.40	7.82	.	0.52	.	0.021	0.022	0.85	.	.
2	113X 402	24.86	2.15	1.26	.	.	9.41	7.96	.	0.38	.	0.045	0.036	0.32	.	.
1	119X COB1	24.71	14.7	0.398	0.401	0.346	20.74	11.64	0.022	0.064	0.087	0.026	0.0147	0.410	.	.
2	113X 404	23.7	1.28	0.69	.	.	10.76	7.71	.	0.51	.	0.002	0.006	0.75	.	.
1	IMZ 186	23.14	0.10	.	.	.	10.22	7.17	0.28	0.59	.	.	.	.	0.19	Rem
2	IARM 97C	22.2	2.37	0.82	0.36	0.023	22.8	14.6	0.19	0.130	0.027	0.011	0.0004	0.47	0.011	35.8
2	111X 12669	22.04	1.41	0.57	.	2.06	0.62	10.65	.	.	.	.	.	0.71	.	.
2	BS 172A	21.85	1.76	0.77	0.30	0.09	23.7	14.0	0.08	0.098	0.027	(0.011)	(<0.0005)	0.37	.	.
1	111X 12667	21.79	1.36	0.52	0.161	1.50	(0.70)	8.22	0.005	0.008	0.047	(0.003)	0.0068	0.749	.	.
2	IARM 97B	21.2	1.92	0.76	0.56	0.022	19.4	12.9	0.08	0.096	0.07	0.009	(0.001)	0.34	0.006	42.5
2	111X 12672	20.9	1.47	0.54	.	2.04	0.71	10.0	.	.	(0.005)	.	0.014	0.65	.	.
2	IARM 96B	20.54	2.29	1.39	1.17	0.046	10.04	14.52	0.035	0.132	0.047	0.0063	0.0005	0.16	0.007	49.4
2	BS 171B	20.5	1.82	1.90	0.65	0.046	10.68	15.1	0.08	0.087	0.035	0.008	<0.001	0.29	.	.
2	111X 12671	20.5	1.45	0.61	.	1.95	0.88	11.8	.	.	.	.	.	0.51	.	.
1	SRM 1242	20.0	1.80	1.58	.	(<0.005)	9.78	15.1	(<0.01)	0.126	0.0010	0.002	0.0007	0.016	.	51.5
2	IARM 207A	19.98	0.64	0.015	9.62	0.043	35.19	0.028	0.040	0.007	0.017	0.002	0.0027	0.053	0.91	33.46
2	IARM 96D	19.97	2.17	1.40	0.35	0.08	10.66	14.71	0.23	0.079	0.038	0.006	0.0005	0.23	0.046	49.8
2	IARM 96C	19.95	2.93	1.91	1.88	0.047	10.36	15.4	0.08	0.132	0.08	0.008	0.001	0.31	0.007	47.1
1	111X 12670	19.24	1.28	0.48	(0.057)	2.53	1.10	10.95	(0.004)	(0.007)	(0.059)	0.0052	0.026	0.589	.	.
1	IARM 256A	19.1	9.0	0.014	7.0	0.51	25.7	0.02	0.17	0.020	0.008	0.006	0.002	0.07	3.03	35.6
1	111X 12673	18.8	1.70	0.55	.	2.40	1.70	9.8	0.02	0.001	0.10	.	0.021	0.85	.	.
1	119X 81601	18.56	(5.37)	1.44	4.08	4.20	19.9	4.14	.	0.396	.	0.021	0.033	0.601	.	.
1	IARM 326A	(0.002)	49.6	0.003	(0.002)	0.038	0.037	(0.001)	(0.003)	(0.002)	(0.002)	0.0013	0.0011	0.029	(0.002)	48.4

#	Number	Cr	Fe	Mn	Mo	Nb	Ni	W	Al	C	Cu	P	S	Si	Ti	Co

Number	B	La	Mg	N	O	Pb	Sn	Ta	V	Zr	Units
112X 14943	0.0059	.	.	0.056	.	.	.	.	.	.	40 mm Ø x ~15 mm
IARM 208B	0.005	.	(0.0004)	0.003	0.0015	0.0006	0.004	0.042	0.05	0.002	31 mm Ø x 18 or 2 mm
119X ST3	0.148	.	.	0.040	.	.	.	.	.	.	40 mm Ø x 15 mm
112X 14942	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
ECRM 378-1D	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
IARM 208C	0.002	.	0.0002	0.169	0.0010	.	.	(0.02)	0.012	0.0014	31 mm Ø x 18 or 2 mm
BS 173	(0.001)	.	.	0.190	(0.002)	.	.	.	(0.01)	.	35 mm Ø x 12 mm
CT ISO074A	(<0.0010)	.	.	0.17	.	.	.	.	0.005	.	30-35 mm Ø x 20-25 mm
113X 405	0.001	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
IARM 64C	0.0010	.	0.0043	0.113	0.0012	.	<0.01	0.02	0.020	<0.01	31 mm Ø x 18 or 2 mm
IARM 64B	(0.001)	.	0.005	0.12	(0.0009)	.	.	(0.028)	(0.014)	<0.01	31 mm Ø x 18 or 2 mm
113X 401	0.008	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
112X 14937	0.0123	.	.	0.142	.	.	.	.	.	.	50-55 mm Ø x 15 mm
113X 403	0.006	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
113X 402	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
119X COB1	.	.	.	0.129	.	.	.	.	.	.	40 mm Ø x 15 mm
113X 404	0.001	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
IMZ 186	(0.007)	.	.	.	.	.	.	3.78	.	0.40	1/4 of 78 mm Ø cylinder x 30 mm
IARM 97C	0.0028	.	0.0010	0.075	0.0007	.	(0.001)	0.04	0.010	(0.007)	31 mm Ø x 18 or 2 mm
111X 12669	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
BS 172A	(0.003)	0.045	(0.001)	.	.	.	.	(0.024)	0.007	.	38 mm Ø x 9 mm
111X 12667	.	.	.	0.085	.	.	.	0.145	.	.	43 mm Ø x 20 mm
IARM 97B	(0.002)	0.005	<0.002	0.014	0.003	.	<0.005	0.019	0.012	(0.001)	31 mm Ø x 18 or 2 mm
111X 12672	.	.	.	.	.	0.04	0.02	0.07	.	.	40 mm Ø x 15 mm
IARM 96B	0.0021	.	(0.0005)	0.007	0.002	.	.	0.028	0.012	0.007	31 mm Ø x 18 or 2 mm
BS 171B	.	.	.	.	.	.	.	.	(0.02)	.	38 mm Ø x 9 mm
111X 12671	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
SRM 1242	(<0.0001)	.	(<0.001)	0.026	.	(<0.0001)	(<0.001)	(<0.01)	0.005	(<0.01)	43 mm Ø x 20 mm
IARM 207A	0.011	.	(0.0005)	0.0031	0.0011	.	.	0.007	0.011	0.003	31 mm Ø x 18 or 2 mm
IARM 96D	0.003	.	(0.004)	0.0084	0.0006	.	(0.001)	0.03	0.008	(0.007)	31 mm Ø x 18 or 2 mm
IARM 96C	0.002	.	(0.0002)	0.031	0.001	.	.	0.03	0.012	0.009	31 mm Ø x 18 or 2 mm
111X 12670	.	.	.	0.006	.	.	0.021	0.105	.	.	40 mm Ø x 15 mm
IARM 256A	0.013	.	<0.001	0.0032	0.0011	.	.	<0.005	0.03	(0.005)	31 mm Ø x 18 or 2 mm
111X 12673	.	.	.	.	.	0.005	0.08	0.06	.	.	40 mm Ø x 15 mm
119X 81601	.	.	(0.012)	0.056	.	.	.	0.104	.	.	43 mm Ø x 20 mm
IARM 326A	(0.001)	.	(0.001)	0.0004	0.0082	.	<0.001	(0.01)	1.94	0.002	31 mm Ø x 2 or 18 mm

Number	B	La	Mg	N	O	Pb	Sn	Ta	V	Zr	Units

LEAD

= class, where 1 = CRM and 2 = rm analysis listed in mass %

#	Number	Ag	As	Bi	Cd	Cu	Ni	Sb	Se	Sn	Te	Zn
1	83X PR1	0.123	0.0287	0.0551	0.0932	0.0039	0.0004	0.0048	(0.0010)	0.0059	0.0016	0.006
1	83X PR2	0.0537	0.0235	0.0310	0.0021	0.0346	0.0026	0.050	(0.0022)	0.104	0.0114	(0.0008)
1	83X PR4	0.0146	0.0054	0.0187	0.0083	0.0138	(0.0009)	0.0164	0.0053	0.0112	0.0198	.
1	SRM C2417	0.010	0.011	0.010	(<0.0002)	0.010	(<0.0005)	0.010	.	(<0.010)	(<0.0005)	(<0.0005)
1	IMN PL66	0.00652	0.0315	0.00488	0.0624	0.00048	0.00055	0.0310	.	0.00079	0.0010	.
2	L01.3	0.0052	0.00013	0.0006	0.00062	0.00243	0.00051	0.00027	.	(0.00007)	0.00061	0.00045
1	83X PR3	0.0033	0.0017	0.162	0.0479	0.0551	0.0142	0.095	0.0104	0.050	0.0021	(0.0011)
1	IMN PL33	0.0017	0.00026	0.0101	0.00157	0.0104	0.00397	0.0008	0.00027	0.00022	0.0235	.
1	BCR 287A	0.00152	<0.0000003	0.00673	0.000036	0.000098	0.0000024	0.0000040	<0.000005	<0.000005	<0.00002	<0.00001
1	SRM C2418	0.0007	(<0.0001)	(<0.0005)	0.0003	(<0.0001)	(<0.0005)	(<0.0001)	.	(<0.0005)	(<0.0005)	(<0.0005)
1	84X BAHC	0.0005	(0.00015)	0.0130	<0.0001	0.0005	(<0.0001)	(0.0001)	<0.0001	<0.0005	(0.0001)	(0.00017)
1	83X PR5	0.0004	0.0002	0.0080	0.00018	0.0006	0.00008	0.00015	0.00013	0.0011	0.0002	0.00014
2	L01.2	0.00013	0.000095	0.0101	0.00226	0.00180	0.0008	0.0003	.	(0.00007)	0.00074	0.0004
2	BCS 210e *	0.0001	.	0.0008	.	0.0006	<0.001	<0.002	.	<0.002	.	<0.005
1	BCR 286A	0.0000015	<0.0000002	0.00215	0.0000125	0.000149	0.0000041	0.000010	<0.000005	<0.000005	<0.00001	<0.00001

Number	Al	Au	Ca	Fe	Hg	In	Mn	Na	Pt	Ti	Tl	Units
83X PR1	.	.	.	(0.0007)	.	0.0356	.	.	(0.0016)	.	.	40 mm Ø x 15 mm
83X PR2	.	0.0008	.	.	0.0041	0.0012	.	0.0021	.	.	0.0012	40 mm Ø x 15 mm
83X PR4	.	(0.0023)	.	.	0.044	0.0030	.	.	.	.	0.0033	40 mm Ø x 15 mm
SRM C2417	(<0.0001)	.	(<0.001)	(<0.0003)	.	.	(<0.0003)	.	.	.	.	50 mm Ø x 16 mm
IMN PL66	.	.	(0.00811)	(0.0002)	.	0.0106	(0.00005)	.	.	.	0.0491	440 mm Ø x 27 mm
L01.3	.	.	.	.	.	.	.	.	.	.	.	50 mm x 50 mm x 20 mm
83X PR3	.	0.0041	.	.	0.0103	0.0069	.	0.0026	.	.	0.0125	40 mm Ø x 15 mm
IMN PL33	.	.	(0.00034)	(0.00024)	.	0.00059	(0.00006)	.	.	.	0.00264	440 mm Ø x 27 mm
BCR 287A	.	.	.	.	.	.	.	.	.	.	0.000073	60 mm x 60 mm x 12 mm
SRM C2418	(<0.0001)	.	(<0.0005)	(<0.0005)	.	.	(<0.0005)	.	.	.	.	50 mm Ø x 16 mm
84X BAHC	0.0305	.	0.140	(<0.0001)	.	.	(<0.0001)	.	.	.	.	55 mm Ø x 12 mm
83X PR5	.	.	.	(0.00025)	0.00018	(0.0001)	.	.	.	.	.	40 mm Ø x ~15 mm
L01.2	.	.	.	.	.	.	.	.	.	.	.	50 mm x 50 mm x 20 mm
BCS 210e *	<0.001	.	.	0.0005	.	.	<0.001	.	.	0.001	.	500 g(10.5 x 2 x 2 cms)
BCR 286A	.	.	.	.	.	.	.	.	.	.	0.00025	60 mm x 60 mm x 12 mm

* BCS 210e has a certified melting point of 327.3 ‘C and Pb: 99.996

CRM REFINED LEAD SET

available in SET/7 ONLY analysis listed in mg/kg 40 mm Ø x 27 mm

Number	Ag	As	Bi	Ca	Cd	Cu	Fe	In	Mn	Ni	Sb	Se	Sn	Te	Tl	Zn
IMN PL 1	193	3.6	729	.	.	7.3	4.5	(64.3)	(0.20)	136	15.4	.	3.0	145	569	6.0
IMN PL 2	97.0	2.6	460	.	218	14.9	4.4	(6.4)	(0.17)	159	7.2	33.3	2.6	349	228	(1.7)
IMN PL 3	17.0	2.5	101	(3.4)	15.7	105	(2.4)	5.9	(0.60)	39.4	8.0	2.7	2.1	235	26.4	1.8
IMN PL 4	10.3	345	59.9	.	5.1	197	.	.	.	8.5	3.4	2.7	.	23.6	21.5	.
IMN PL 5	27.3	159	296	.	.	9.1	.	287	.	6.7	572	.	13.7	13.6	135	.
IMN PL 6	64.3	318	48.3	(81.1)	623	4.7	(2.0)	104	(0.50)	5.5	310	.	7.6	8.2	494	.
IMN PL 7	151	(74.3)	61.7	.	53.2	6.8	.	.	.	.	77.7	.	26.3	270	99.2	3.5

LEAD BINARY

available individually — typical analysis

Class	Number	Sn	As	Pb	Sb	Units
CRM	91X S63P	63.30	.	Rem	.	40 mm Ø x 15 mm
RM	91X S50P	50.0	.	Rem	.	40 mm Ø x 15 mm
RM	91X S40P	40.0	.	Rem	.	40 mm Ø x 15 mm
RM	91X S30P	30.0	.	Rem	.	40 mm Ø x 15 mm
RM	NF 23	30.0	.	Rem	.	37 mm Ø x 12 mm
RM	NF 22	25.0	.	Rem	.	37 mm Ø x 12 mm
RM	NF 20	15.2	.	Rem	.	37 mm Ø x 12 mm
RM	NF 19	12.0	.	Rem	.	37 mm Ø x 12 mm
CRM	91X S10P	10.07	.	Rem	.	40 mm Ø x 15 mm
RM	NF 18	9.80	.	Rem	.	37 mm Ø x 12 mm
RM	NF 17	6.80	.	Rem	.	37 mm Ø x 12 mm
RM	NF 16	3.00	.	Rem	.	37 mm Ø x 12 mm
EM	NF 35	0.97	0.94	Rem	14.0	37 mm Ø x 12 mm

cast — typical analysis — 40 mm Ø x 15 mm

Class	Number	Sb	Ag	As	Bi	Pb
CRM	81X PA12.5	12.72	.	.	.	Remainder
CRM	81X PA10.0	9.60	.	.	.	Remainder
CRM	81X PA7.0	7.02	.	.	.	Remainder
CRM	81X PA3.5	3.49	.	.	.	Remainder
CRM	81X PA2.0	1.996	.	.	.	Remainder
CRM	81X PA1.0	0.989	.	.	.	Remainder
CRM	81X PA0.5	0.481	.	.	.	Remainder
RM	81X PAs1	(0.02)	.	1.25	(0.03)	Remainder
CRM	82X PAG0.9	.	0.903	.	.	.
CRM	82X PAG0.7	.	0.733	.	.	.

RM LEAD BASE SETS

sold in sets only, as grouped — 37 mm Ø x 12 mm

Number	Sn	Ag	Al	As	Au	Bi	Ca	Cd	Cu	Fe	In	Ni	Pb	Sb	Zn
NF 44-1	<0.003	0.0013	.	0.0007	.	0.0009	0.0037	0.0021	0.0009	<0.005	<0.01	<0.01	Rem	<0.003	<0.01
NF 44-2	0.0030	0.005	.	0.006	.	0.0051	.	0.00070	0.006	<0.005	<0.01	<0.01	Rem	0.0054	.
NF 44-3	0.06	0.02	.	0.02	.	0.021	0.0090	0.02	0.02	<0.005	<0.01	<0.01	Rem	0.02	.
NF 44-4	0.13	0.033	.	0.06	.	0.053	.	0.04	0.03	.	<0.01	.	Rem	0.06	.
NF 44-5	0.56	0.2	.	0.53	.	0.49	.	0.12	0.042	.	<0.01	.	Rem	0.60	<0.01
NF 44-6	1.05	0.7	.	.	.	0.8	.	0.53	0.064	.	<0.5	.	Rem	0.9	<0.01
NF 34-1	0.05	4.5	.	0.005	.	0.05	.	.	0.30	.	.	.	Rem	0.40	0.001
NF 34-2	0.10	5.5	.	0.01	.	0.10	.	.	0.15	.	.	.	Rem	0.25	0.0025
NF 34-3	0.25	6.5	.	0.02	.	0.25	.	.	0.08	.	.	.	Rem	0.10	0.005
NF 32-1	0.41	1.90	.	(0.005)	.	0.055	.	.	0.23	.	.	.	Rem	0.42	(0.001)
NF 32-2	0.97	1.50	.	(0.01)	.	0.10	.	.	0.14	.	.	.	Rem	0.25	(0.0025)
NF 32-3	1.40	0.50	.	(0.02)	.	0.27	.	.	0.068	.	.	.	Rem	0.11	(0.005)
NF 31-1	8.90	2.90	.	.	.	0.0072	.	.	0.073	.	.	.	Rem	0.21	.
NF 31-2	10.1	2.10	.	.	.	0.012	.	.	0.042	.	.	.	Rem	0.09	.
NF 31-3	11.1	1.10	.	.	.	0.035	.	.	0.0089	.	.	.	Rem	0.05	.
NF 43-1	9.5	0.002	(0.005)	0.0009	0.005	0.011	.	0.0007	0.001	<0.1	0.005	<0.1	Rem	0.015	<0.1
NF 43-2	10.0	0.004	(0.002)	0.003	0.009	0.012	.	0.002	0.002	<0.1	0.011	<0.1	Rem	0.11	<0.1
NF 43-3	11.3	0.010	(0.004)	0.004	0.012	0.040	.	0.009	0.003	<0.1	0.036	<0.1	Rem	0.20	<0.1
NF 30-1	40.00	0.005	.	0.007	.	0.03	.	.	0.005	.	.	<0.1	Rem	0.15	.
NF 30-2	39.30	0.01	.	0.01	.	0.06	.	.	0.011	.	.	<0.1	Rem	0.43	.
NF 30-3	39.70	0.025	.	0.03	.	0.15	.	.	0.04	.	.	<0.1	Rem	0.75	.
NF 15-1	48	0.04	.	.	.	0.10	.	0.04	.	.	.	.	Rem	0.15	.
NF 15-2	48	0.08	.	.	.	0.25	.	0.08	.	.	.	.	Rem	0.35	.
NF 15-3	48	0.15	.	.	.	0.50	.	0.15	.	.	.	.	Rem	0.70	.

Number Sn Ag Al As Au Bi Ca Cd Cu Fe In Ni Pb Sb Zn

CRM HARD LEAD SETS

SOLD IN SETS ONLY, AS GROUPED

Number	Sb	Sn	Ag	As	Bi	Cd	Cu	Ni	Se	Te	Units
IMN PKK 1	0.41	.	.	0.070	.	.	.	.	0.0071	.	40 mm Ø x 25 mm
IMN PKK 2	1.19	.	.	0.014	.	.	.	.	0.020	.	
IMN PKK 3	0.75	.	.	0.0064	.	.	.	.	0.027	.	
IMN PK 1	0.42	0.82	0.012	0.036	0.033	.	0.013	.	.	0.015	40 mm Ø x 25 mm
IMN PK 2	0.85	1.41	0.0082	0.36	0.023	.	0.010	.	.	0.015	
IMN PK 3	2.69	0.39	0.0047	0.22	0.014	.	0.0044	0.0033	.	0.011	
IMN PK 4	2.21	0.057	0.0014	0.62	0.0076	.	0.0012	(0.00089)	.	.	
IMN PK 5	1.51	0.0058	0.0010	0.0054	0.0067	.	0.00094	0.00068	.	(0.0017)	
IMN PG 1	0.76	0.56	0.020	0.019	0.082	0.078	0.059	.	.	.	40 mm Ø x 12 mm
IMN PG 2	0.23	0.28	0.013	0.015	0.071	0.064	0.030	.	.	.	
IMN PG 3	0.52	0.10	0.011	0.0096	0.053	0.040	0.030	.	.	.	
IMN PG 4	0.042	.	0.0076	0.0044	0.032	0.026	0.021	.	.	.	
IMN PG 5	0.97	.	0.0024	.	0.017	0.011	0.0078	.	.	.	
IMN PE 1	0.053	0.59	.	.	.	.	.	.	.	.	40 mm Ø x 12 mm
IMN PE 2	0.27	0.50	.	.	.	.	.	.	.	.	
IMN PE 3	0.49	0.38	.	.	.	.	.	.	.	.	
IMN PE 4	0.70	0.31	.	.	.	.	.	.	.	.	
IMN PE 5	0.89	0.21	.	.	.	.	.	.	.	.	
IMN PE 6	0.53	0.40	.	.	.	.	.	.	.	.	

LEAD ALLOYS

CONTINUED ON THE NEXT PAGE

= class, where 1 = CRM and 2 = rm analysis listed in mass %

#	Number	Sn	Sb	Ag	As	Bi	Ca	Cd	Cu	Fe	Ni	Te	Zn
1	91X S63PR4	66.8	0.093	0.030	<0.002	0.030	.	0.021	0.021	<0.005	<0.005	0.006	<0.001
1	91X S63PR3	64.01	0.243	0.0193	0.0264	0.254	.	0.0009	0.101	0.0078	0.0085	0.0068	0.0061
1	91X S63PR2	62.38	0.539	0.054	0.0190	0.144	.	0.0130	0.0733	0.0129	0.0092	0.0032	0.004
1	91X S63Bi1	61.9	0.470	0.0592	(<0.002)	0.597	.	0.0095	0.105	0.0204	0.0131	0.0012	(0.0022)
1	91X S62AG2	61.68	0.347	2.03	0.022	0.168	.	0.0016	0.069	0.0065	(0.0016)	.	0.0011
1	91X S63PR1	61.45	0.052	0.0061	0.0064	0.0588	.	0.0045	0.214	(0.0016)	0.0060	0.0047	(0.0021)
1	91X S63PR0	60.03	0.0182	0.0097	0.0094	0.0084	.	0.0097	0.0202	(0.0024)	0.0018	0.0034	<0.0005
1	91X S50PR4	54.6	0.098	0.045	0.044	0.097	.	0.0118	1.58	(0.0034)	0.0114	.	0.0105
2	93X S50APR3	51.5	2.3	0.02	0.02	0.25	.	0.01	0.1	0.005	0.01	.	0.01
2	91X S50PR3	51.5	0.25	0.020	0.01	0.25	.	0.001	0.10	0.005	0.015	.	0.003
2	93X S50APR2	50.0	2.8	0.05	0.03	0.15	.	0.005	0.05	0.02	0.005	.	0.025
2	93X S50APR1	48.5	3.3	0.005	0.005	0.05	.	0.001	0.2	0.015	0.001	.	0.002
1	91X S40PR3	41.8	0.25	0.022	0.018	0.25	.	0.010	0.094	0.01	0.016	.	.
2	93X S40APR3	41.5	1.7	0.02	0.02	0.25	.	0.01	0.1	0.005	0.01	.	0.01
2	93X S40APR2	40.0	2.2	0.05	0.03	0.15	.	0.005	0.05	0.02	0.005	.	0.025
2	91X S40PR2	40.0	0.60	0.050	0.03	0.15	.	0.005	0.05	0.020	0.005	.	0.025
1	SRM 1131	39.3	0.43	0.01	0.01	0.06	.	.	0.011	.	0.012	.	.
2	91X S40PR1	39.0	0.05	0.005	0.005	0.05	.	0.001	0.20	0.015	0.001	.	0.002
2	93X S40APR1	38.5	2.7	0.005	0.005	0.05	.	0.001	0.2	0.015	0.001	.	0.002
1	93X S30APR3	33.0	0.96	0.021	0.018	0.28	.	0.009	0.008	0.003	0.010	.	0.0053
1	91X S30PR3	30.88	0.269	0.024	0.0126	0.294	.	0.0115	0.102	0.0016	0.0269	.	(0.003)
1	93X S30APR2	30.68	1.80	0.049	0.0178	0.168	.	0.0061	0.062	0.0026	0.042	0.0102	0.028
1	91X S30PR2	30.17	0.619	0.060	0.028	0.158	.	0.0060	0.095	0.009	0.0077	.	0.016
2	91X S30PR1	29.3	0.047	0.007	0.006	0.057	.	0.0024	0.19	(0.08)	0.0023	.	0.0013
1	93X S30APR1	28.58	2.54	0.0144	0.010	0.059	.	0.0014	0.192	(0.012)	0.0010	.	(0.0004)
2	91X S10PR3	11.97	0.26	0.03	0.02	0.23	.	0.011	0.12	0.002	(0.02)	.	.
1	86X PSS4	10.64	15.93	0.0264	0.241	0.102	.	0.0539	0.355	0.0035	0.0010	0.0146	0.012
2	91X S10PR2	10.38	0.51	0.05	0.04	0.15	.	0.007	0.05	0.003	0.003	.	.
1	85X SSBC	9.70	2.14	0.456	0.075	0.413	.	0.455	.	.	.	0.0037	.
1	86X PSS3	9.39	14.13	0.0140	0.409	0.0273	.	0.0170	0.489	0.0025	0.0009	0.0050	0.0030
1	86X PSS2	7.00	8.04	0.0179	1.43	0.0646	.	0.066	0.127	(0.0012)	0.0165	.	0.031
1	SRM 1132	5.84	10.26	.	0.057	0.052	.	.	0.054	<0.001	0.003	.	.
1	86X PSS1	4.29	11.54	0.0049	0.554	0.195	.	0.0057	0.0249	0.0018	0.0100	.	0.0030
1	84X BA9	2.92	0.0022	0.0017	<0.0005	0.0186	0.109	0.0010	0.0026	.	(0.0003)	<0.0005	0.0020
1	85X SSCH	2.64	5.52	0.0134	0.208	0.0441	.	0.0040	0.177	(0.002)	0.010	0.0070	0.0007
1	85X PSn2	1.97	0.0269	0.0033	0.0047	0.0508	.	0.0012	0.0344	.	0.0010	0.0041	0.0005
1	BAM EB106	1.72	.	(0.00323)	.	(0.0135)	0.0782	.	.	.	.	.	.
1	84X BA13	1.716	0.0010	0.0075	0.0008	0.0370	0.0738	0.00143	0.00074	.	.	.	0.0047
1	84X BA12	1.527	0.00080	0.0050	0.00048	0.0173	0.0646	0.00097	0.0020	.	.	.	0.00232
1	84X BA10	1.51	0.0008	0.0015	0.0005	0.0190	0.0596	0.0002	0.0005	.	(0.0002)	(0.0002)	0.0003

#	Number	Sn	Sb	Ag	As	Bi	Ca	Cd	Cu	Fe	Ni	Te	Zn
1	85X ANTH	1.45	6.05	0.0071	0.217	0.0194	.	0.0046	0.0291	(0.010)	0.0062	0.0071	(0.0007)
1	BAM EB105	1.43	.	0.00321	.	0.0133	0.0595	.	.	.	.	.	.
1	84X BA11	1.304	0.0079	0.0023	0.0005	0.0165	0.0552	0.00064	0.0026	.	.	.	0.00050
1	BAM EB104	1.27	.	(0.00293)	.	(0.0126)	0.0530	.	.	.	.	.	.
1	BAM EB102a	1.01	(0.0004)	0.0170	(<0.0002)	0.00737	0.0635	.	0.00013	(<0.0002)	.	(<0.00011)	(<0.00005)
1	84X BA1	0.899	(0.0017)	0.0082	0.0007	0.0174	0.0960	0.0019	0.0009	.	(0.0004)	(0.0005)	0.0048
1	85X HRH	0.851	1.106	0.236	0.721	0.0996	.	0.0066	0.073	.	0.0012	0.0023	.
1	83X PR8	0.603	0.259	0.505	0.155	1.186	.	0.211	0.066	.	0.0020	0.0011	(0.0015)
1	82X PAG6.0R	0.50	0.48	5.93	0.021	0.52	.	0.010	0.18	<0.001	.	.	0.007
1	84X BA2	0.490	0.0010	0.0107	0.0008	0.0319	0.0754	0.0040	0.0033	.	0.00025	.	0.0129
2	L21.04	0.43	0.001	0.0006	0.0003	0.0008	0.11	0.0007	0.001	.	0.0004	0.0003	0.002
1	84X BA3	0.341	0.010	0.0082	(0.0006)	0.0411	0.0163	0.0044	0.006	.	(0.0004)	0.0004	(0.0055)
2	L21.03	0.34	0.0003	0.01	<0.0001	0.01	0.10	0.001	0.001	.	0.0001	0.0003	0.0004
1	SRM C2415	0.33	2.95	0.002	0.20	0.054	(<0.001)	0.002	0.095	<0.001	<0.001	0.0045	<0.001
1	84X BA 8	0.324	(0.0006)	0.0046	0.0003	0.0166	0.125	0.00065	0.0007	.	(0.0002)	.	0.0031
1	84X BA 20	0.299	0.0030	0.0290	.	0.0194	0.334	0.0057	.	.	.	.	0.0438
1	BAM EB101a	0.294	(<0.00012)	0.00290	(<0.0002)	0.0165	0.136	(<0.0002)	0.00243	(<0.0002)	(<0.00006)	(<0.0003)	0.00010
1	BAM 101	0.293	.	0.00288	.	0.0165	0.1436	.	0.00173	.	.	.	.
1	85X PSb12	0.270	11.50	0.0019	0.071	0.0310	.	0.00053	0.330	.	0.0033	0.0056	0.071
1	82X PAG3.5R	0.25	0.106	3.54	0.020	0.290	.	0.0027	0.073	<0.001	.	.	(0.0004)
1	85X 0494 Pb3 *	0.24	3.00	0.020	0.25	0.12	.	.	0.104	<0.0005	.	0.014	.
2	L21.02	0.23	0.0007	0.007	<0.0001	0.01	0.02	0.0002	0.003	.	0.0001	0.0003	0.0007
1	83X PR7	0.189	0.795	0.290	0.051	0.479	.	0.455	0.176	(0.0008)	(0.0015)	0.0097	(0.0006)
1	BAM 103	0.183	1.64	0.0066	0.097	0.0158	.	0.000020	0.00097	.	0.00302	.	.
1	84X BA 23	0.170	0.0020	0.0039	.	0.0163	1.21	0.00014	.	.	.	.	0.00218
1	84X BA 21	0.161	0.0091	0.0122	.	0.0224	0.608	0.0057	.	.	.	.	0.0136
1	85X 0494 Pb2	0.147	1.93	0.0300	0.111	0.0174	.	.	0.0361	(0.0010)	.	0.0050	.
1	85X PSb3	0.132	2.20	0.0046	0.269	0.0202	.	0.0041	0.0351	.	0.0033	0.0063	0.00047
2	L21.01	0.11	0.0005	0.004	<0.0001	0.02	0.06	0.001	0.007	.	0.0001	0.0003	0.001
1	84X BA 22	0.108	0.00114	0.0059	.	0.0162	0.911	0.00139	.	.	.	.	0.0053
1	85X CADH	0.096	1.85	0.0076	0.201	0.0292	.	2.09	0.0260	0.0005	0.0045	0.0121	0.044
1	85X PSb5	0.094	4.68	0.0023	0.180	0.0204	.	0.0013	0.0251	.	0.0017	0.0018	(0.0019)
1	85X PSb10	0.090	10.0	0.0020	0.127	0.0410	.	0.0018	0.169	.	0.0027	0.0037	0.015
1	SRM C2416	0.09	0.79	0.0044	0.056	0.10	(<0.001)	(<0.0002)	0.065	(<0.0005)	(<0.0005)	(<0.0005)	(<0.0005)
1	82X PAG2.5R	0.082	0.25	2.21	0.010	0.13	.	.	0.26	.	.	.	0.002
1	85X 0616 Pb1	0.065	1.756	0.0048	0.077	0.0395	.	0.0029	0.0496	.	0.0009	0.0048	0.0005
1	85X 0494 Pb1	0.051	0.95	.	0.049	0.0017	.	.	0.012	.	.	.	.
1	84X BA4	0.0480	0.0078	0.0020	(0.0027)	0.0260	0.0014	0.0092	0.0064	.	(0.0004)	0.0205	0.0065
1	85X PSb8	0.041	8.04	0.0049	0.0352	0.0178	.	0.0010	0.0169	.	0.0016	0.0043	<0.001
1	82X PAG1.5R	0.038	0.39	1.55	0.006	0.062	.	.	0.27	.	.	.	0.004
1	85X SASH	0.0130	1.54	0.0016	0.683	0.0602	.	0.00024	0.0245	.	0.0005	0.0006	.
1	85X CADL	0.010	1.54	0.0076	0.0065	0.0169	.	1.69	0.0093	(0.0006)	(0.0005)	0.0030	(0.0018)

#	Number	Sn	Sb	Ag	As	Bi	Ca	Cd	Cu	Fe	Ni	Te	Zn

LEAD ALLOYS CONTINUED FROM THE PREVIOUS PAGE

Number	Al	Au	Hg	In	Mg	Mn	Na	Pd	S	Se	Tl	Units
91X S63PR4	.	0.05	.	0.014	.	.	.	.	.	<0.005	.	Disc 40 mm Ø x 15 mm
91X S63PR3	.	0.169	(0.038)	0.0097	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
91X S63PR2	(0.0014)	0.076	.	0.0154	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
91X S63Bi1	(0.0015)	0.074	.	0.0067	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
91X S62AG2	(0.0011)	0.0020	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
91X S63PR1	.	0.0348	(0.015)	0.0308	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
91X S63PR0	.	0.0148	0.004	0.0048	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
91X S50PR4	<0.001	0.029	.	0.052	.	.	.	.	.	0.003	.	Disc 40 mm Ø x 15 mm
93X S50APR3	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
91X S50PR3	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
93X S50APR2	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
93X S50APR1	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
91X S40PR3	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
93X S40APR3	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
93X S40APR2	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
91X S40PR2	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
SRM 1131	.	.	.	.	.	.	.	.	.	.	.	Disc 32 mm Ø x 19 mm
91X S40PR1	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
93X S40APR1	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
93X S30APR3	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
91X S30PR3	.	0.0063	.	0.0085	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
93X S30APR2	.	.	.	0.0199	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
91X S30PR2	<0.0005	0.0017	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
91X S30PR1	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
93X S30APR1	.	.	.	0.0094	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
91X S10PR3	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
86X PSS4	.	.	.	0.0174	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
91X S10PR2	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
85X SSBC	.	0.0079	.	0.209	.	.	.	.	(0.0008)	(0.0029)	0.0196	Disc 40 mm Ø x 15 mm
86X PSS3	.	.	.	0.0111	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
86X PSS2	.	.	.	0.0059	.	.	.	0.0049	.	.	.	Disc 40 mm Ø x 15 mm
SRM 1132	.	.	.	.	.	.	.	.	.	.	.	Disc 32 mm Ø x 19 mm
86X PSS1	.	.	.	0.0074	.	.	.	0.0023	.	.	.	Disc 40 mm Ø x 15 mm
84X BA9	0.0154	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
85X SSCH	.	.	.	.	.	.	.	.	0.0035	(0.015)	.	Disc 40 mm Ø x 15 mm
85X PSn2	.	.	.	.	.	.	.	.	(0.0008)	0.0011	.	Disc 40 mm Ø x 15 mm
BAM EB106	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm
84X BA13	0.0198	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x ~15 mm
84X BA12	0.0172	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x ~15 mm
84X BA10	0.0100	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm

Number	Al	Au	Hg	In	Mg	Mn	Na	Pd	S	Se	Tl	Units
85X ANTH	.	.	.	.	.	.	.	.	(0.0036)	0.0149	.	Disc 40 mm Ø x 15 mm
BAM EB105	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm
84X BA11	0.0125	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x ~15 mm
BAM EB104	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm
BAM EB102a	0.0124	.	.	(<0.0002)	(<0.0001)	.	(0.0004)	.	(<0.0003)	.	0.00302	Disc 40 mm Ø x 40 mm
84X BA1	0.0240	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x ~15 mm
85X HRH	.	.	.	.	.	.	.	.	(0.0022)	0.0375	.	Disc 40 mm Ø x 15 mm
83X PR8	.	0.0082	0.089	0.224	.	.	0.0073	.	.	0.0064	.	Disc 40 mm Ø x 15 mm
82X PAG6.0R	<0.001	.	.	0.008	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
84X BA2	0.0127	.	(0.003)	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
L21.04	.	.	.	.	.	.	.	.	.	.	.	Block 50 mm x 50 mm x 20 mm
84X BA3	0.0026	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
L21.03	.	.	.	.	.	.	.	.	.	.	.	Block 50 mm x 50 mm x 20 mm
SRM C2415	(<0.0003)	.	.	.	.	<0.001	.	.	0.0026	<0.001	.	Disc 50 mm Ø x 16 mm
84X BA 8	0.0283	.	0.0017	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
84X BA 20	0.0483	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
BAM EB101a	0.0227	.	.	.	(0.0009)	.	(0.0004)	.	(<0.0003)	.	0.00102	Disc 40 mm Ø x 40 mm
BAM 101	0.0257	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm
85X PSb12	.	.	.	.	.	.	.	.	<0.001	0.0004	.	Disc 40 mm Ø x 15 mm
82X PAG3.5R	0.0015	.	.	0.037	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
85X 0494 Pb3 *	.	.	.	.	* Provisional Analysis			.	(0.01)	(0.05)	.	Disc ~40 mm Ø x ~15 mm
L21.02	.	.	.	.	.	.	.	.	.	.	.	Block 50 mm x 50 mm x 20 mm
83X PR7	.	.	.	0.653	.	.	.	Pt:0.0047	.	0.0052	.	Disc 40 mm Ø x 15 mm
BAM 103	.	.	.	.	.	.	.	.	.	0.0180	0.00152	Disc 40 mm Ø x 30 mm
84X BA 23	0.0229	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
84X BA 21	0.0067	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
85X 0494 Pb2	.	.	.	.	.	.	.	.	(0.0053)	0.0302	.	Disc 40 mm Ø x 15 mm
85X PSb3	.	.	.	.	.	.	.	.	(0.0009)	0.0179	.	Disc ~40 mm Ø x ~15 mm
L21.01	.	.	.	.	.	.	.	.	.	.	.	Block 50 mm x 50 mm x 20 mm
84X BA 22	0.033	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
85X CADH	.	.	.	.	.	<0.0005	.	.	<0.0005	0.0010	.	Disc 40 mm Ø x 15 mm
85X PSb5	.	.	.	.	.	.	.	.	0.0075	0.0024	.	Disc 40 mm Ø x 15 mm
85X PSb10	.	.	.	.	.	.	.	.	<0.001	0.0020	.	Disc 40 mm Ø x 15 mm
SRM C2416	(<0.0001)	.	.	.	.	(<0.0005)	.	.	0.0015	.	.	Disc 50 mm Ø x 16 mm
82X PAG2.5R	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
85X 0616 Pb1	.	.	(0.0003)	.	.	.	.	.	.	0.0149	.	Disc 40 mm Ø x 15 mm
85X 0494 Pb1	.	.	.	.	.	.	.	.	.	0.004	.	Disc 40 mm Ø x 15 mm
84X BA4	0.0015	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x ~15 mm
85X PSb8	.	.	.	.	.	.	.	.	0.005	0.0022	.	Disc 40 mm Ø x 15 mm
82X PAG1.5R	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
85X SASH	.	.	.	.	.	.	.	.	(0.0005)	.	.	Disc 40 mm Ø x ~15 mm
85X CADL	.	.	.	.	.	.	.	.	.	(0.0011)	.	Disc 40 mm Ø x ~15 mm

Number	Al	Au	Hg	In	Mg	Mn	Na	Pd	S	Se	Tl	Units

MAGNESIUM

= class, where 1 = CRM and 2 = RM 61X: not for Glow Dischage NH: OES only

#	Number	Al	Cu	Fe	Mn	Ni	Pb	Si	Zn	Ag	Be
2	NH AJ10-03	0.97	0.0005	0.0165	0.013	0.0002	0.0005	0.003	0.010	.	0.0001
1	NCS HS49725-2	(0.531)	0.0077	0.027	0.085	0.011	0.037	0.062	0.047	.	.
1	NCS HS49725-4	0.262	0.014	0.0069	0.023	0.0044	0.012	0.034	0.019	.	.
1	61X MgP3	0.096	0.0296	0.014	0.0135	0.0049	0.0148	0.046	0.0196	0.0125	<0.0001
1	61X MgP2	0.065	0.0109	0.0061	0.0118	0.0029	0.0061	0.031	0.0122	0.003	<0.0001
2	NH RMGH-86	0.0639	0.0048	0.0266	0.0014	0.0054	.	0.0357	0.0113	.	.
2	NH RHC-96	0.0606	0.0155	0.0404	0.0819	0.0056	0.0100	0.0215	0.0672	.	.
1	63X MgE1	0.056	0.0486	0.0045	0.492	0.0091	0.0113	0.040	0.0514	0.0197	0.00036
2	NH RMGH-88	0.0535	0.0055	0.0222	0.0012	0.0041	.	0.0209	0.0112	.	.
2	NH R5-88	0.0473	0.0150	0.0274	0.0061	0.0012	.	0.0362	0.0520	.	.
2	NH RHC-98	0.0330	0.0105	0.0483	0.0353	0.0035	0.0080	0.0131	0.0316	.	.
2	NH R4-88	0.0259	0.0098	0.0359	0.0111	0.0016	.	0.0227	0.0271	.	.
1	61X MgP4	0.0247	0.0108	(0.0044)	0.0100	0.0028	0.0066	0.037	0.0158	0.0203	<0.0001
2	NH R3-88	0.0194	0.0067	0.0298	0.0197	0.0013	.	0.0139	0.0153	.	.
1	NCS HS49725-3	0.017	0.0087	0.0083	0.019	0.0021	0.0067	0.023	0.012	.	.
2	NH M1.2Y.91	0.017	0.0111	0.0195	0.93	0.0025	0.0161	0.0207	0.078	.	0.00005
2	NH RT400-01	0.0161	0.0034	0.0329	0.0191	0.0012	0.0025	0.0084	0.0012	.	.
1	61X MgP1	0.0144	0.0008	0.027	0.0035	(0.0006)	<0.002	0.005	(0.0017)	<0.0002	<0.0002
2	NH RTC-98	0.0137	0.0034	0.0378	0.0175	0.0017	0.0055	0.0029	0.0124	.	0
2	NH R2-88	0.0118	0.0028	0.0294	0.0272	0.0027	.	0.0091	0.0011	.	.
1	NCS HS49725-1	0.011	0.0012	0.0028	0.017	0.00035	0.0052	0.011	0.011	.	.
1	NCS HS49725-7	0.0082	0.0039	0.0055	0.017	0.0013	0.0067	0.030	0.013	.	.
1	NCS HS49725-5	0.0059	0.00063	0.0022	0.0060	(0.00033)	0.0020	0.0063	0.0079	.	.
2	NH R1-88	0.0059	0.0013	0.0251	0.0542	0.0006	.	0.0044	0.0003	.	.
2	NH RMGL-88	0.0055	0.0008	0.0031	0.0298	0.0003	.	0.0004	0.0073	.	.
2	NH RTC-90	0.0055	0.0011	0.0309	0.0702	0.0012	0.0020	0.0013	0.0027	.	.
2	NH R0-90	0.0020	0.0006	0.0098	0.0014	0.0013	0.0004	0.0015	0.0037	.	.
2	NH RLC-98	0.0014	<0.0001	0.0018	0.0012	0.0001	0.0002	0.0012	0.0038	.	<0.0001
2	NH RMGL-93	<0.0005	0.0012	0.0032	0.0005	0.0005	.	0.0002	0.0013	.	.
2	NH AZ111-90	.	0.0027	0.0112	.	0.0009	.	0.0087	.	.	0.0014

Number	Ca	Cd	Ce	K	La	Na	P	Sn	Sr	Ti	Zr	mm Ø x mm H
NH AJ10-03	0.0005	<0.00003	.	<0.0001	.	0.0003	.	0.0001	0.008	.	.	60 x 15
NCS HS49725-2	.	.	.	.	.	.	.	.	.	(0.00018)	.	45 x 25
NCS HS49725-4	.	.	.	.	.	.	.	.	.	0.0012	.	45 x 25
61X MgP3	0.053	0.0154	0.0055	.	0.0038	.	.	0.0154	.	.	(0.0014)	45 x 20
61X MgP2	0.0138	0.0063	0.0019	.	0.0014	.	.	0.0073	.	.	(0.0007)	45 x 20
NH RMGH-86	.	.	.	.	.	.	.	.	.	.	.	60 x 15
NH RHC-96	0.0006	0.0106	.	.	.	0.0062	0.0138	0.0118	.	.	.	60 x 15
63X MgE1	(0.014)	.	0.0010	.	0.0006	.	.	0.0033	.	0.00012	<0.001	40 x 18
NH RMGH-88	.	.	.	.	.	.	.	.	.	.	.	60 x 15
NH R5-88	.	.	.	.	.	.	.	.	.	.	.	60 x 15
NH RHC-98	0.0008	0.0056	.	.	.	0.0028	0.0059	0.0035	.	.	.	60 x 15
NH R4-88	.	.	.	.	.	.	.	.	.	.	.	60 x 15
61X MgP4	0.028	0.0071	0.0041	.	0.0030	.	.	0.0067	.	.	0.030	45 x 20
NH R3-88	.	.	.	.	.	.	.	.	.	.	.	60 x 15
NCS HS49725-3	.	.	.	.	.	.	.	.	.	0.000062	.	45 x 25
NH M1.2Y.91	.	.	.	.	.	.	.	0.0055	.	.	.	60 x 15
NH RT400-01	0.0009	0.0007	.	.	.	0.0028	0.0043	0.0018	.	.	.	60 x 15
61X MgP1	<0.001	<0.0002	<0.0005	.	<0.0005	.	.	<0.002	.	.	<0.0005	45 x 20
NH RTC-98	0.0007	0.0015	.	.	.	0.0056	0.0048	0.0024	.	.	.	60 x 15
NH R2-88	.	.	.	.	.	.	.	.	.	.	.	60 x 15
NCS HS49725-1	.	.	.	.	.	.	.	.	.	0.00027	.	45 x 25
NCS HS49725-7	.	.	.	.	.	.	.	.	.	(0.00010)	.	45 x 25
NCS HS49725-5	.	.	.	.	.	.	.	.	.	0.000072	.	45 x 25
NH R1-88	.	.	.	.	.	.	.	.	.	.	.	60 x 15
NH RMGL-88	.	.	.	.	.	.	.	.	.	.	.	60 x 15
NH RTC-90	0.0004	<0.0001	.	.	.	0.0001	0.0027	0	.	.	.	60 x 15
NH R0-90	<0.00005	<0.00005	.	.	.	0.0000	<0.0001	.	.	.	.	60 x 15
NH RLC-98	0.0003	<0.0001	.	.	.	<0.0001	<0.0001	<0.0001	.	.	.	60 x 15
NH RMGL-93	.	.	.	.	.	.	.	.	.	.	.	60 x 15
NH AZ111-90	.	.	.	.	.	.	.	.	.	.	.	60 x 15

MAGNESIUM with RARE EARTHS

= class, where 1 = CRM and 2 = RM analysis listed in mass % except * which is mg/kg 66X MgD3 ##: not for Glow Discharge

#	Number	Ag	Al	Be*	Ca	Cd*	Ce	Cu	Dy	Er	Eu	Fe	Gd	Ho	K*	La	Li	Lu
2	NH AE82-04	.	8.42	14	0.0028	24	1.03	0.0045	.	.	.	0.0099	.	.	2	0.63	.	.
2	NH AE66-03	.	6.63	14	0.0001	<1	3.28	0.0020	.	.	.	0.0045	.	.	2	2.36	.	.
2	NH AE61-04	.	6.41	18	0.0024	54	0.45	0.0058	.	.	.	0.0035	.	.	3	0.36	.	.
2	NH AE63-04	.	6.10	10	0.0010	4	1.50	0.0008	.	.	.	0.0047	.	.	2	1.46	.	.
2	NH AEBH-02	.	5.07	26	.	62	0.011	0.0188	.	.	.	0.0013	.	.	.	0.013	.	.
2	NH AEAH-02	.	5.06	29	.	62	0.011	0.0189	.	.	.	0.0014	.	.	.	0.013	.	.
2	NH AE53-04	.	5.19	10	0.0002	3	1.41	0.0096	.	.	.	0.0054	.	.	1	1.00	.	.
2	NH AEH-93	.	4.96	13	.	.	2.29	0.0575	.	.	.	0.0018	.	.	.	0.90	.	.
2	NH AE-T-01	.	4.04	15	.	<1	0.15	0.0045	.	.	.	0.0058	.	.	.	0.08	.	.
2	NH AE-X-02	.	3.00	15	.	5	0.036	0.0021	.	.	.	0.0008	.	.	.	0.030	.	.
2	NH AE39-03	.	2.71	4	0.0002	<1	4.41	0.0011	.	.	.	0.0112	.	.	1	3.11	.	.
2	NH AE-S-03	.	2.05	6	.	8	0.063	0.0006	.	.	.	0.0003	.	.	.	0.040	.	.
1	64X MgQ9	.	2.14	15	.	.	0.111	0.0104	.	.	.	0.0069	.	.	.	0.083	.	.
2	NH AE-Q-02	.	1.98	13	.	4	0.087	0.0011	.	.	.	0.0017	.	.	.	0.046	.	.
2	NH AEL-93	.	1.45	5	.	.	0.79	0.0121	.	.	.	0.0058	.	.	.	0.37	.	.
2	NH AE-Y-03	.	1.38	1	.	24	0.099	0.0095	.	.	.	0.0047	.	.	.	0.064	.	.
2	NH AE-L-02	.	0.96	1	.	<1	0.35	0.0005	.	.	.	0.0145	.	.	.	0.14	.	.
2	68X MgH6	1.13	0.23	.	.	.	.	0.11	.	.	.	0.03	.	.	.	.	.	.
1	66X MgD1	.	0.147	.	.	.	0.065	0.066	.	.	.	0.0029	.	.	.	0.031	.	.
1	61X MgP5	0.0342	0.119	18	.	292	0.049	0.092	.	.	.	0.0048	.	.	.	0.0382	.	.
1	67X MgF5	<0.0005	0.094	.	.	.	0.412	0.0735	.	.	.	0.0290	.	.	.	0.239	.	.
1	67X MgF4	<0.0005	0.079	.	.	.	0.81	0.0302	.	.	.	<0.002	.	.	.	0.47	.	.
1	61X MgP6	0.0043	0.0449	.	(0.0008)	25	0.0209	0.0067	.	.	.	0.0041	.	.	.	0.0137	.	.
2	66X MgD3 ##	0.005	0.041	3	(0.07)	.	0.004	0.058	.	.	.	0.023	.	.	.	0.004	.	.
1	67X MgF1	<0.001	0.0176	.	.	.	1.88	0.0048	.	.	.	0.0024	.	.	.	1.12	.	.
2	AA C7548	.	0.004	.	.	.	2.66	0.022	.	.	.	.	.	.	.	.	.	.
1	67X MgF2	<0.001	0.0038	.	.	.	1.42	0.0033	.	.	.	(0.001)	.	.	.	0.98	.	.
2	AA C7594	.	0.003	.	.	.	3.22	0.080	.	.	.	.	.	.	.	.	.	.
2	AA C7546	.	0.003	.	.	.	1.63	0.058	.	.	.	.	.	.	.	.	.	.
1	69X MGY4	.	(0.0023)	.	.	.	0.011	0.0011	.	.	.	0.0012	1.54	.	.	0.0078	.	.
2	AA C7514	.	0.002	.	.	.	2.47	0.12	.	.	.	.	.	.	.	.	.	.
1	69X MGY1	.	(0.0019)	.	.	.	0.029	(0.0015)	0.313	0.13	(0.004)	0.0021	0.284	0.065	.	0.166	0.119	0.007
1	69X MGY2	.	(0.0014)	.	.	.	0.047	0.0013	0.085	0.0174	<0.0005	0.0014	0.082	0.0037	.	0.0352	0.012	0.00046
1	66X MgD4	(0.0017)	0.0012	<2	.	.	0.015	0.0041	.	.	.	0.0010	.	.	.	0.014	.	.
1	69X MGY3	.	(0.0010)	.	.	.	0.020	0.0010	0.225	0.041	(<0.0005)	0.0015	0.221	0.0049	.	0.023	0.014	0.00054
2	AA C7489	.	0.001	.	.	.	2.57	0.004	.	.	.	.	.	.	.	.	.	.
1	66X MgC2	0.0048	<0.003	<1	.	.	0.0206	0.037	.	.	.	0.0009	.	.	.	0.0164	.	.
1	68X MgH1	3.21	<0.002	.	.	.	0.040	0.0046	.	.	.	<0.002	.	.	.	0.034	.	.
2	AA E1273	.	0	.	.	.	1.86	0.022	.	.	.	.	.	.	.	.	.	.
2	AA E1272	.	0	.	.	.	1.79	0.026	.	.	.	.	.	.	.	.	.	.
1	67X MgF3	<0.001	<0.001	.	.	.	1.17	0.0010	.	.	.	<0.002	.	.	.	0.84	.	.
2	AA D1075	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	AA D1073	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	AA D1072	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	AA D1074	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

continued 66X-69X: 40-45mm Ø x 15-20mm 69X MgY4: 60mm Ø x 6mm AA: 62mm Ø x 6mm NH: 60mm Ø x 15mm R.E. = Rare Earths

Number	Mn	Na*	Nd	Ni	Pb	Pr	R.E.	Si	Sm	Sn	Tb	Th	Tm	Y	Yb	Zn	Zr
NH AE82-04	0.106	31	0.23	0.0013	0.0031	0.085	.	0.008	.	0.0042	.	.	.	.	.	0.197	.
NH AE66-03	0.29	1	0.73	0.0002	0.0170	0.28	.	0.025	.	0.0053	.	.	.	.	.	0.015	.
NH AE61-04	0.064	41	0.117	0.0002	0.0163	0.04	.	0.065	.	0.0051	.	.	.	.	.	0.043	.
NH AE63-04	0.19	18	0.48	0.0004	0.0022	0.14	.	0.008	.	0.0026	.	.	.	.	.	0.046	.
NH AEBH-02	0.19	.	0.002	0.0108	0.0129	0.001	.	1.49	.	0.0102	.	.	.	.	.	0.50	.
NH AEAH-02	0.19	.	0.002	0.0108	0.0130	0.001	.	1.47	.	0.0106	.	.	.	.	.	0.51	.
NH AE53-04	0.57	3	0.37	0.0014	0.0050	0.12	.	0.012	.	0.0032	.	.	.	.	.	0.24	.
NH AEH-93	0.298	.	0.61	0.0084	.	0.28	.	0.0376	.	.	.	.	.	.	.	0.400	.
NH AE-T-01	0.11	.	0.03	0.0021	0.0051	0.015	.	1.13	.	0.0047	.	.	.	.	.	0.28	.
NH AE-X-02	0.043	.	0.012	0.0051	0.0018	0.004	.	1.34	.	0.0009	.	.	.	.	.	0.0179	.
NH AE39-03	0.29	1	1.00	0.0008	0.0066	0.40	.	0.021	.	<0.0005	.	.	.	.	.	0.114	.
NH AE-S-03	0.110	.	0.016	0.0012	0.0015	0.006	.	0.56	.	0.0008	.	.	.	.	.	0.153	.
64X MgQ9	0.068	.	0.114	0.0020	0.0096	.	.	(0.37)	.	0.0076	.	.	.	.	.	0.243	.
NH AE-Q-02	0.09	.	0.029	0.0008	0.0012	0.009	.	1.04	.	0.0006	.	.	.	.	.	0.185	.
NH AEL-93	0.161	.	0.25	0.0025	.	0.09	.	0.0172	.	.	.	.	.	.	.	0.053	.
NH AE-Y-03	0.168	.	0.027	0.0004	0.0031	0.010	.	0.83	.	0.0023	.	.	.	.	.	0.090	.
NH AE-L-02	0.012	.	0.098	0.0005	0.0007	0.042	.	0.004	.	0.0001	.	.	.	.	.	0.006	.
68X MgH6	0.17	.	.	0.01	<0.005	.	(1.0)	0.015	.	<0.002	.	.	.	.	.	0.21	<0.01
66X MgD1	0.125	.	0.064	0.0162	0.026	.	.	(0.073)	.	0.026	.	.	.	.	.	1.19	.
61X MgP5	0.201	.	0.0446	0.0176	0.0357	.	.	0.094	.	0.0352	.	.	.	0.0132	.	0.099	.
67X MgF5	0.171	.	0.011	0.0004	<0.0005	0.100	.	0.0026	.	<0.001	.	.	.	.	.	6.29	<0.001
67X MgF4	0.0023	.	0.048	(0.0003)	<0.001	0.195	.	(0.0014)	.	<0.001	.	.	.	.	.	5.04	0.024
61X MgP6	0.0125	.	0.0238	0.0025	0.0120	.	.	0.044	.	0.0091	.	.	.	0.0375	.	0.010	.
66X MgD3 ##	0.28	.	.	0.002	0.009	.	.	0.020	.	0.007	.	.	.	.	.	1.97	0.029
67X MgF1	0.0039	.	(0.05)	(0.0003)	<0.001	0.48	.	<0.005	.	<0.002	.	.	.	.	.	0.501	0.022
AA C7548	0.035	.	.	0.001	.	.	(4.8)	0.002	.	.	.	.	.	.	.	.	0.16
67X MgF2	0.0047	.	0.29	0.0008	0.019	0.112	.	<0.002	.	<0.002	.	.	.	.	.	1.71	0.30
AA C7594	0.033	.	.	0.001	.	.	(6.0)	0.002	.	.	.	.	.	.	.	.	0.31
AA C7546	0.039	.	.	0.004	.	.	(3.0)	0.001	.	.	.	.	.	.	.	.	0.34
69X MGY4	0.0104	.	2.36	0.0009	(0.001)	0.0056	.	.	0.0083	.	.	.	.	.	.	0.495	0.29
AA C7514	0.012	.	.	0.002	.	.	(4.7)	0.002	.	.	.	.	.	.	.	.	0.42
69X MGY1	0.0109	.	2.26	(0.0005)	0.014	0.059	.	.	0.09	.	0.045	.	(0.013)	4.64	0.078	0.121	0.38
69X MGY2	0.0026	.	2.96	0.0011	(0.002)	0.016	.	.	0.013	.	0.0046	.	0.0009	1.98	0.0094	0.354	0.41
66X MgD4	0.0053	.	.	(0.0003)	(0.0009)	.	.	<0.001	.	(0.0008)	.	.	.	.	.	2.77	0.69
69X MGY3	0.0028	.	2.82	0.0012	(0.0055)	0.015	.	.	0.020	.	0.0057	.	0.0011	3.46	0.0168	0.315	0.43
AA C7489	0.012	.	.	0.015	.	.	(5.0)	0.002	.	.	.	.	.	.	.	.	0.46
66X MgC2	0.0036	.	.	0.0044	0.0074	.	.	(0.0013)	.	0.0007	.	.	.	.	.	4.82	0.47
68X MgH1	0.0027	.	3.05	(0.0006)	<0.002	(0.014)	.	<0.005	.	<0.002	.	.	.	.	.	0.053	0.47
AA E1273	0.041	.	.	0.002	.	.	(3.6)	0.0	.	.	.	.	.	.	.	2.87	0.54
AA E1272	0.045	.	.	0.003	.	.	(3.3)	0.0	.	.	.	.	.	.	.	2.58	0.54
67X MgF3	0.0040	.	0.212	(0.0006)	0.0140	0.106	.	(0.001)	.	<0.002	.	.	.	.	.	3.34	0.53
AA D1075	.	.	.	.	.	.	(3.7)	.	.	.	.	.	.	.	.	(2.7)	0.64
AA D1073	.	.	.	.	.	.	(3.7)	.	.	.	.	.	.	.	.	3.23	(0.6)
AA D1072	.	.	.	.	.	.	(3.4)	.	.	.	.	.	.	.	.	2.02	(0.5)
AA D1074	.	.	.	.	.	.	(3.4)	.	.	.	.	.	.	.	.	(2.7)	0.42

MAGNESIUM with ALUMINUM

#	Number	Al	Be	Ca	Cd	Cu	Fe	Mn	Ni	Pb	Si	Sn	Zn
1	NCS HS49722-5	11.52	(0.0023)	.	.	0.295	(0.20)	(0.68)	0.018	.	0.176	.	0.217
1	65X MgA15	10.67	0.0062	(0.0014)	0.0034	0.0273	0.010	0.067	0.0026	0.0051	0.034	0.0021	0.348
2	AA D3738	10.38	.	.	.	0.031	.	0.21	0.004	.	0.085	.	0.32
2	NH STD1-85	9.54	0.0015	.	.	0.0130	0.0278	0.0169	0.0127	.	1.14	.	0.0009
1	64X MgQ3	8.66	0.0041	.	.	0.0349	0.0090	0.206	0.0032	0.0022	(0.083)	0.0019	0.0039
1	65X MgA5	8.00	0.0013	(0.014)	0.0035	0.0195	0.006	0.401	0.0201	0.042	0.110	0.0124	0.411
1	NCS HS49723-3	7.33	0.00015	.	.	0.020	0.015	0.182	(0.0015)	.	0.27	.	0.171
2	NH A91-L-00	6.98	0.0001	.	.	0.0004	0.0004	0.53	0.0002	0.0005	0.0021	0.0009	0.19
1	64X MgQ4	6.50	0.00029	.	.	0.310	0.0040	0.183	0.0068	0.0322	(0.067)	0.0282	0.188
1	NCS HS49723-4	6.29	(0.0010)	.	.	0.020	(0.016)	0.428	(0.0068)	.	0.286	.	0.271
2	NH AM60T-02	6.14	0.0019	.	.	0.0052	0.0040	0.356	0.0021	0.0040	0.0069	0.0031	0.102
2	NH K2-87	6.14	0.0012	.	.	0.0040	0.0129	0.165	0.0016	.	0.018	.	0.32
1	NCS HS49723-1	6.10	(0.0020)	.	.	0.0029	(0.039)	0.92	0.0012	.	0.034	.	0.057
2	NH AM60TC-00	6.02	0.0014	.	.	0.0052	0.0038	0.363	0.0021	0.0035	0.0063	0.0038	0.095
1	NCS HS49722-1	5.96	(0.00024)	.	.	0.0035	0.0070	0.020	0.00094	.	0.097	.	0.0068
2	NH AM60TC-99	5.92	0.0018	.	.	0.0053	0.0026	0.489	0.0020	0.0031	0.0049	0.0030	0.148
1	NCS HS49724-2	5.82	0.00018	.	.	0.0016	0.0077	0.095	0.0012	.	1.54	.	0.128
1	64X MgQ5	5.76	0.0013	.	.	0.0072	0.0043	0.276	0.0010	0.0056	0.052	0.0050	0.047
2	NH AZ61-Y91	5.56	0.0006	.	.	0.0116	0.0053	0.355	0.0107	.	0.087	.	0.476
2	NH AM5002-91	4.92	0.0004	.	.	0.0121	0.0068	0.189	0.0022	.	0.0722	.	0.054
2	NH AZ61-L91	4.92	0.0004	.	.	0.0020	0.0044	0.502	0.0038	.	0.027	.	0.112
2	NH A8-L-02	4.73	0.0004	.	<0.0001	0.0010	0.0032	0.43	0.0003	0.0009	0.0040	0.0002	0.206
2	NH AM60LC-99	4.64	0.0004	.	.	0.0011	0.0158	0.115	0.0007	0.0009	0.0033	0.0011	0.0043
1	NCS HS49723-5	4.57	0.0009	.	.	0.013	0.025	(0.65)	0.0025	.	0.239	.	0.105
1	64X MgQ2	4.53	0.0013	.	.	0.0151	0.0041	0.378	0.0061	0.0107	0.051	0.0107	0.107
1	NCS HS49724-4	4.37	0.0009	.	.	0.103	0.022	0.33	0.0038	.	1.22	.	0.25
2	NH AS4100-90	4.37	0.0004	.	.	0.252	0.0117	0.144	0.0228	.	0.29	.	0.114
1	65X MgA17	4.20	.	0.021	0.0049	0.0215	0.0069	0.203	0.0141	0.009	0.33	0.0050	0.128
2	NH A4-T-05	4.09	0.0014	0.0002	0.0018	0.0070	0.0049	0.397	0.0015	0.0023	1.18	0.0020	0.205
2	NH ALC-98	4.04	0	.	.	0.0004	0.0006	0.422	0.0002	0.0003	0.0004	0.0002	0.004
1	64X MgQ7	4.02	0.00042	.	.	0.0167	0.0028	(0.434)	0.0053	0.0126	(1.05)	0.0096	0.0607
2	NH ALC-92	3.94	0	.	.	0.0005	0.0009	0.46	0.0004	0.0020	0.0054	0.0021	0.0080
1	65X MgB4	3.86	0.0033	0.0010	0.00016	0.0183	(0.009)	0.031	0.0003	0.0037	0.037	0.0050	0.333
1	NCS HS49724-1	3.69	0.00011	.	.	0.0084	0.0070	0.59	0.0012	.	0.54	.	0.102
2	NH A60-L-00	3.62	0.0003	0.0001	<0.00005	0.0004	0.0123	0.105	0.0005	0.0007	0.0054	0.0008	0.0103
2	NH K1-B-87	3.20	0.0016	.	.	0.0030	.	0.109	0.0007	.	0.014	.	0.107
2	NH K1-A-87	3.19	0.0019	.	.	0.0031	.	0.110	0.0006	.	0.014	.	0.105
2	NH A8-L98	2.62	0.0005	.	.	0.0009	0.0019	0.50	0.0012	0.0016	0.0070	0.0009	0.10
1	NCS HS49724-5	2.58	0.0012	.	.	0.039	0.033	0.23	0.014	.	1.83	.	0.152
1	NCS HS49723-2	2.55	0.0009	.	.	0.0081	0.0089	0.338	0.0008	.	0.173	.	0.237
2	AA C8209	2.55	.	.	.	0.012	(0.02)	0.15	0.001	.	0.058	.	0.18
1	64X MgQ6	2.31	0.0007	.	.	0.0045	(0.004)	(0.260)	0.0026	0.0060	(0.97)	0.0055	0.072
2	NH AS2100-90	2.28	0.0008	.	.	0.045	0.0058	0.273	0.0028	.	1.08	.	0.206
2	AA C8211	2.07	.	.	.	0.033	(0.02)	0.20	0.007	.	0.090	.	0.23
2	NH AM2002-91	1.99	0.0009	.	.	0.0235	0.0036	0.440	0.0011	.	0.0831	.	0.088
2	NH AJ20-B-03	1.92	0.0029	0.0002	0.0136	0.0098	0.0096	0.108	0.0028	0.0085	0.057	0.0065	0.023
2	NH AJ20-A-03	1.91	0.0033	0.0002	0.0137	0.0099	0.0099	0.109	0.0028	0.0086	0.057	0.0065	0.023
1	NCS HS49723-6	1.36	0.0033	.	.	0.010	0.0049	0.130	0.010	.	0.065	.	0.492
2	NH A31-L91	1.19	0.0003	.	.	0.0037	0.0041	0.408	0.0007	.	0.020	.	0.202
1	NCS HS49724-3	1.09	(0.0005)	.	.	0.16	(0.0034)	(0.50)	(0.0013)	.	0.68	.	0.339
1	64X MgQ1	1.083	0.00036	.	.	0.084	0.0034	0.377	0.0041	0.020	0.062	0.0195	0.235
1	NCS HS49725-6	(1.06)	.	.	.	0.025	0.020	0.148	0.0052	0.018	0.020	.	0.025
2	NH K0-87	1.03	0.0005	.	.	0.0022	0.0043	0.489	0.0005	.	0.0076	.	0.050
1	64X MgQ8	1.03	0.00015	.	.	0.0019	0.0018	0.700	0.0004	0.0008	0.045	0.0022	0.044

Number	Ag	Ce	Hg	K	La	Na	Sr	Ti	Zr	mm Ø x mm H
NCS HS49722-5	.	.	.	.	.	.	.	.	.	45 x 25
65X MgA15	0.030	0.0069	0.011	.	0.0048	.	.	.	.	50x20 or 40x15
AA D3738	.	.	.	.	.	.	.	.	.	62 x 6
NH STD1-85	.	.	.	.	.	.	.	.	.	60 x 15
64X MgQ3	.	.	.	.	.	.	.	.	.	50x20 or 40x15
65X MgA5	0.0050	.	.	.	.	.	0.0004	(0.001)	.	50x20 or 40x15
NCS HS49723-3	.	.	.	.	.	.	.	.	.	45 x 25
NH A91-L-00	.	.	.	.	.	.	.	.	.	60 x 15
64X MgQ4	.	.	.	.	.	.	.	.	.	50x20 or 40x15
NCS HS49723-4	.	.	.	.	.	.	.	.	.	45 x 25
NH AM60T-02	.	.	.	.	.	.	.	.	.	60 x 15
NH K2-87	.	.	.	.	.	.	.	.	.	60 x 15
NCS HS49723-1	.	.	.	.	.	.	.	.	.	45 x 25
NH AM60TC-00	.	.	.	.	.	.	.	.	.	60 x 15
NCS HS49722-1	.	.	.	.	.	.	.	.	.	45 x 25
NH AM60TC-99	.	.	.	.	.	.	.	.	.	60 x 15
NCS HS49724-2	.	.	.	.	.	.	.	.	.	45 x 25
64X MgQ5	.	.	.	.	.	.	.	.	.	50x20 or 40x15
NH AZ61-Y91	.	.	.	.	.	.	.	.	.	60 x 15
NH AM5002-91	.	.	.	.	.	.	.	.	.	60 x 15
NH AZ61-L91	.	.	.	.	.	.	.	.	.	60 x 15
NH A8-L-02	.	.	.	.	.	.	.	.	.	60 x 15
NH AM60LC-99	.	.	.	.	.	.	.	.	.	60 x 15
NCS HS49723-5	.	.	.	.	.	.	.	.	.	45 x 25
64X MgQ2	.	.	.	.	.	.	.	.	.	50x20 or 40x15
NCS HS49724-4	.	.	.	.	.	.	.	.	.	45 x 25
NH AS4100-90	.	.	.	.	.	.	.	.	.	60 x 15
65X MgA17	0.0064	.	.	.	.	.	.	.	.	50x20 or 40x15
NH A4-T-05	.	.	.	0.0002	.	0.0006	.	.	.	60 x 15
NH ALC-98	.	.	.	.	.	.	.	.	.	60 x 15
64X MgQ7	.	.	.	.	.	.	.	.	.	50x20 or 40x15
NH ALC-92	.	.	.	.	.	.	.	.	.	60 x 15
65X MgB4	0.0046	0.0003	.	.	(0.0001)	.	.	(0.0008)	<0.001	40 x 18
NCS HS49724-1	.	.	.	.	.	.	.	.	.	45 x 25
NH A60-L-00	.	.	.	0.0001	.	0.0004	.	.	.	60 x 15
NH K1-B-87	.	.	.	.	.	.	.	.	.	60 x 15
NH K1-A-87	.	.	.	.	.	.	.	.	.	60 x 15
NH A8-L98	.	.	.	.	.	.	.	.	.	60 x 15
NCS HS49724-5	.	.	.	.	.	.	.	.	.	45 x 25
NCS HS49723-2	.	.	.	.	.	.	.	.	.	45 x 25
AA C8209	.	.	.	.	.	.	.	.	.	62 x 6
64X MgQ6	.	.	.	.	.	.	.	.	.	50x20 or 40x15
NH AS2100-90	.	.	.	.	.	.	.	.	.	60 x 15
AA C8211	.	.	.	.	.	.	.	.	.	62 x 6
NH AM2002-91	.	.	.	.	.	.	.	.	.	60 x 15
NH AJ20-B-03	.	.	.	<0.0001	.	0.017	0.17	.	.	60 x 15
NH AJ20-A-03	.	.	.	<0.0001	.	0.016	0.17	.	.	60 x 15
NCS HS49723-6	.	.	.	.	.	.	.	.	.	45 x 25
NH A31-L91	.	.	.	.	.	.	.	.	.	60 x 15
NCS HS49724-3	.	.	.	.	.	.	.	.	.	45 x 25
64X MgQ1	.	.	.	.	.	.	.	.	.	50x20 or 40x15
NCS HS49725-6	.	.	.	.	.	.	.	0.0025	.	45 x 25
NH K0-87	.	.	.	.	.	.	.	.	.	60 x 15
64X MgQ8	.	.	.	.	.	.	.	.	.	50x20 or 40x15

NH: OES only

MAGNESIUM with ALUMINUM and ZINC

= class, where 1 = CRM and 2 = RM 65X ##: not for Glow Discharge NH: OES only

#	Number	Al	Zn	Be	Ca	Cd	Cu	Fe	Mn	Ni	Pb	Si	Sn
1	65X MgA21	12.37	5.11	0.0006	.	.	0.0020	0.0140	0.0777	0.0010	0.0048	0.028	0.0063
2	NH A91-H-01	10.50	1.70	0.0026	.	<0.0001	0.0482	0.0136	0.057	0.0040	0.0109	0.069	0.0123
2	NH K8-87	10.32	0.73	0.0007	.	.	0.0041	0.0127	0.190	0.0015	.	0.018	.
2	NH APE-89	10.24	1.44	0.0018	0.0005	0.0060	0.0298	0.0149	0.058	0.0055	0.0057	0.086	0.0062
2	NH AHC-98	10.07	1.05	0.0027	.	.	0.0472	0.0119	0.0416	0.0024	0.0072	0.0518	0.0088
2	NH A91-H-91	10.01	1.35	0.0025	.	.	0.0183	0.0189	0.060	0.0061	.	0.0376	.
2	NH AHC-92	9.96	1.70	0.0014	.	.	0.0610	0.0125	0.065	0.0082	0.0202	0.12	0.0206
2	NH A8-H99	9.95	1.21	0.0015	.	.	0.0118	0.0276	0.067	0.0109	.	0.091	.
2	NH A8-H98	9.89	2.04	0.0020	.	.	0.0229	0.0179	0.074	0.0115	0.0100	0.31	0.0100
1	65X MgA23	9.72	0.543	0.0026	.	.	0.0153	0.0083	0.130	0.0011	0.0020	0.0270	0.0026
1	65X MgA14	9.09	0.685	0.0029	0.016	0.0014	0.0102	0.008	0.282	0.0082	0.006	0.080	0.0085
1	65X MgA19	8.97	2.17	0.00025	.	.	0.0426	0.0085	0.322	0.0065	0.049	0.196	0.049
1	65X MgA22	8.60	0.882	0.0005	.	.	0.0783	0.0054	0.40	0.0057	0.0039	(0.086)	0.0032
2	NH K5-87	8.11	1.07	0.0001	.	.	0.0462	0.0009	0.351	0.0116	.	0.083	.
2	NH K4-87	8.07	0.83	0.0005	.	.	0.0096	.	0.34	0.0066	.	0.046	.
2	AA SM183-B	(8.0)	(3.0)	.	.	.	.	.	(0.2)	0.005	.	.	.
2	AA SM183-C	(8.0)	(3.0)	.	.	.	.	.	(0.2)	0.005	.	.	.
2	AA SM183-D	(8.0)	(3.0)	.	.	.	.	.	(0.2)	0.005	.	.	.
2	AA C3731D	7.66	2.62	.	.	.	0.011	.	0.12	0.012	.	0.093	.
2	AA C3731G	7.54	2.60	.	.	.	0.011	.	0.12	0.012	.	0.091	.
1	65X MgA13	7.45	0.925	(0.010)	0.0064	0.0055	0.125	(0.008)	0.092	0.0039	0.0085	0.022	0.043
2	NH AZ61-H91	7.45	1.466	0.0048	.	.	0.0301	0.0140	0.040	0.0413	.	0.32	.
2	NH K3-87	7.36	0.51	0.0010	.	.	0.0084	0.0097	0.280	0.0028	.	0.030	.
1	NCS HS49722-3	7.18	2.99	0.00044	.	.	0.087	0.013	0.339	0.0045	.	0.097	.
1	NCS HS49722-4	6.96	1.94	0.0010	.	.	0.164	0.023	0.231	(0.013)	.	0.28	.
1	65X MgA16	6.78	4.03	0.0011	0.0024	0.0066	0.099	0.0073	0.271	0.0057	0.050	0.023	0.028
1	65X MgA18	6.75	0.502	0.00051	.	.	0.052	0.0081	0.192	0.0074	0.0244	0.043	0.0114
2	AA SM145	(6.7)	(2.4)	0.003	.	.	.	.	.	.	.	.	.
2	NH AZ61-X91	6.65	1.223	0.0021	.	.	0.0245	0.0154	0.127	0.0331	.	0.243	.
2	NH AZ61-T91	6.23	0.82	0.0013	.	.	0.0184	0.0088	0.243	0.0188	.	0.166	.
2	AA C3681G	6.17	3.32	.	.	.	0.19	.	0.17	.	.	0.47	.
2	NH AZ63-89	6.05	3.71	0.0012	0.000150	0.0054	0.0234	0.0082	0.16	0.0032	0.0052	.	0.0055
2	AA C3681D	5.99	3.32	.	.	.	0.19	.	0.16	.	.	0.47	.
1	65X MgA20	5.87	1.32	0.0018	.	.	0.013	0.008	0.067	0.0025	0.0075	0.052	0.032
1	65X MgA12	5.68	3.18	(0.0036)	0.037	0.0121	0.266	0.0053	0.198	0.0148	0.010	0.0142	0.0021
1	65X MgA1 ##	5.45	1.26	0.006	0.029	0.013	0.221	0.021	0.060	0.021	0.012	0.20	0.072
1	NCS HS49722-2	4.68	3.81	0.00009	.	.	0.0036	0.0042	0.077	0.0010	.	0.024	.
1	65X MgA11	3.63	1.59	0.0021	0.102	0.0014	0.0496	0.0048	0.044	0.0134	0.0190	0.022	0.093
2	NH A31-X91	3.51	1.455	0.0029	.	.	0.0475	0.0138	0.116	0.0071	.	0.263	.
2	AA C7574	3.36	(1.0)	.	.	.	.	.	(0.4)	.	.	.	.
1	65X MgB3 ##	3.19	0.608	0.0029	0.030	0.012	0.0214	(0.004)	0.0122	0.0020	0.0037	0.012	0.0050
2	AA C7640	(3.0)	0.76	.	.	.			(0.4)	.			.
2	AA C7641	(3.0)	1.36	.	.	.			.	.			.
2	AA C7643	(3.0)	(1.0)	.	.	.	0.026	.	0.32	0.005	.	0.14	.
1	65X MgB2	2.67	0.95	0.0008	0.011	0.0114	0.113	(0.010)	0.333	0.0027	0.0036	0.069	0.0047
1	65X MgB1 ##	2.39	1.71	0.0007	0.41	0.070	0.20	0.016	0.68	0.013	0.015	0.17	0.011
2	AA C7639	2.39	(1.0)	.	.	.	.	.	(0.4)	.	.	.	.
2	NH A31-Y91	2.37	0.616	0.0007	.	.	0.0124	0.0073	0.327	0.0040	.	0.0258	.

Number	Ag	Ce	Hg	K	La	Na	P	Sr	Ti	Zr	mm Ø x mm H
65X MgA21	.	.	.	.	.	.	.	.	.	.	50x20 or 40x15
NH A91-H-01	.	.	.	.	.	.	.	.	.	.	60 x 15
NH K8-87	.	.	.	.	.	.	.	.	.	.	60 x 15
NH APE-89	.	.	.	<0.0001	.	0.0011	0.0063	.	.	.	60 x 15
NH AHC-98	.	.	.	.	.	.	.	.	.	.	60 x 15
NH A91-H-91	.	.	.	.	.	.	.	.	.	.	60 x 15
NH AHC-92	.	.	.	.	.	.	.	.	.	.	60 x 15
NH A8-H99	.	.	.	.	.	.	.	.	.	.	60 x 15
NH A8-H98	.	.	.	.	.	.	.	.	.	.	60 x 15
65X MgA23	.	.	.	.	.	.	.	.	.	.	50x20 or 40x15
65X MgA14	0.0016	0.0120	(0.082)	.	0.0111	.	.	.	.	.	50x20 or 40x15
65X MgA19	.	.	.	.	.	.	.	.	.	.	50x20 or 40x15
65X MgA22	.	.	.	.	.	.	.	.	.	.	50x20 or 40x15
NH K5-87	.	.	.	.	.	.	.	.	.	.	60 x 15
NH K4-87	.	.	.	.	.	.	.	.	.	.	60 x 15
AA SM183-B	.	.	.	.	.	.	.	.	.	.	62 x 6
AA SM183-C	.	.	.	.	.	.	.	.	.	.	62 x 6
AA SM183-D	.	.	.	.	.	.	.	.	.	.	62 x 6
AA C3731D	.	.	.	.	.	.	.	.	.	.	62 x 6
AA C3731G	.	.	.	.	.	.	.	.	.	.	62 x 6
65X MgA13	0.0074	0.0024	(0.033)	.	0.0021	.	.	.	.	.	50x20 or 40x15
NH AZ61-H91	.	.	.	.	.	.	.	.	.	.	60 x 15
NH K3-87	.	.	.	.	.	.	.	.	.	.	60 x 15
NCS HS49722-3	.	.	.	.	.	.	.	.	.	.	45 x 25
NCS HS49722-4	.	.	.	.	.	.	.	.	.	.	45 x 25
65X MgA16	0.0035	0.0017	0.005	.	0.0012	.	.	.	.	.	50x20 or 40x15
65X MgA18	.	.	.	.	.	.	.	.	.	.	50x20 or 40x15
AA SM145	.	.	.	.	.	.	.	.	.	.	62 x 6
NH AZ61-X91	.	.	.	.	.	.	.	.	.	.	60 x 15
NH AZ61-T91	.	.	.	.	.	.	.	.	.	.	60 x 15
AA C3681G	.	.	.	.	.	.	.	.	.	.	62 x 6
NH AZ63-89	.	.	.	0.0001	.	0.0005	0.0069	.	.	.	60 x 15
AA C3681D	.	.	.	.	.	.	.	.	.	.	62 x 6
65X MgA20	.	.	.	.	.	.	.	.	.	.	50x20 or 40x15
65X MgA12	0.0128	0.0009	(0.016)	.	0.0007	.	.	.	.	.	50x20 or 40x15
65X MgA1 ##	0.012	0.009	.	.	0.007	.	.	.	.	(0.0015)	45 x 20
NCS HS49722-2	.	.	.	.	.	.	.	.	.	.	45 x 25
65X MgA11	(0.0002)	(0.0005)	0.006	.	(0.0005)	.	.	.	.	.	50x20 or 40x15
NH A31-X91	.	.	.	.	.	.	.	.	.	.	60 x 15
AA C7574	.	.	.	.	.	.	.	.	.	.	62 x 6
65X MgB3 ##	(0.024)	.	.	.	.	.	.	.	.	<0.001	45 x 20
AA C7640	.	.	.	.	.	.	.	.	.	.	62 x 6
AA C7641	.	.	.	.	.	.	.	.	.	.	62 x 6
AA C7643	.	.	.	.	.	.	.	.	.	.	62 x 6
65X MgB2	0.0098	0.0009	.	.	0.0007	.	.	.	0.0003	<0.001	40 x 18
65X MgB1 ##	0.029	0.015	.	.	0.013	.	.	.	0.009	(0.003)	45 x 20
AA C7639	.	.	.	.	.	.	.	.	.	.	62 x 6
NH A31-Y91	.	.	.	.	.	.	.	.	.	.	60 x 15

RM MAGNESIUM with ALUMINUM and STRONTIUM

60 mm Ø x 15 mm

Number	Al	Mn	Sr	Zn	Ba	Be	Ca	Cd	Cu	Fe	K	Na	Ni	Pb	Si	Sn
NH AJ85-03	8.55	0.351	5.17	0.43	.	0.0019	0.148	<0.00003	0.0160	0.0012	<0.0001	0.0130	0.0121	0.0156	0.072	0.0140
NH AJ73-03	7.24	0.384	3.08	0.306	.	0.0015	0.075	0.0009	0.0071	0.0071	<0.0001	0.0163	0.0018	0.0022	0.029	0.0020
NH AJ52-A-03	4.92	0.14	1.91	0.20	0.0030	0.0006	0.0026	0.0041	0.0038	0.0056	0.0003	0.037	0.0006	0.0020	0.009	0.0013
NH AJ52-B-03	4.91	0.14	1.90	0.20	0.0030	0.0006	0.0027	0.0041	0.0038	0.0054	0.0004	0.040	0.0005	0.0019	0.0087	0.0013
NH AJ52-C-03	4.90	0.14	1.92	0.20	0.0029	0.0005	0.0027	0.0041	0.0039	0.0059	0.0004	0.048	0.0006	0.0019	0.009	0.0014
NH AJ41-03	4.24	0.494	1.49	0.079	.	0.0009	0.0326	0.0052	0.0009	0.0015	<0.0001	0.0009	0.0007	0.0054	0.11	0.0034
NH AJ31-03	2.80	0.20	0.84	0.034	0.0015	0.0004	0.012	0.0022	0.0320	0.0044	0.0005	0.006	0.0199	0.0050	0.006	0.0043

MAGNESIUM with MANGANESE

= class, where 1 = CRM and 2 = RM

#	Number	Mn	Al	Cu	Fe	Ni	Pb	Si	Sn	Zn
1	63X MgE3	2.36	0.015	0.012	0.004	0.0023	0.005	(0.009)	0.0055	0.022
2	NH M12-X91	2.18	0.094	0.0271	0.0015	0.0050	0.0169	0.0128	0.0457	0.251
2	AA C8096	1.88	(0.1)	(0.04)	.	(0.003)	.	(0.05)	.	(0.1)
1	63X MgE2	1.76	0.045	0.0203	0.0019	0.0035	0.0020	0.019	0.0026	0.0243
2	AA SMD3A	1.69	0.08	0.032	.	0.002	.	0.034	.	0.058
2	AA C8095	(1.6)	0.17	0.012	.	0.005	.	0.052	.	0.029
1	63X MgE2A	1.47	0.07	0.02	0.02	0.005	0.007	0.01(5)	0.01	0.02
2	AA C8016	(1.3)	0.03	0.070	.	0.011	.	0.064	.	0.11
2	AA C7857	1.07	(0.1)	(0.03)	.	(0.001)	.	(0.05)	.	(0.1)

Number	Ag	Be	Ca	Cd	Ti	Zr	mm Ø x mm H	
63X MgE3	0.0048	.	0.13	0.0009	<0.001	<0.001	50x20 or 40x15	
NH M12-X91	.	0.0003	.	.	.	.	60 x 15	OES only
AA C8096	.	.	.	.	.	.	62 x 6	
63X MgE2	0.0089	.	(0.0016)	0.0009	.	.	40 x 15	batch B
AA SMD3A	.	.	.	.	.	.	62 x 6	
AA C8095	.	.	.	.	.	.	62 x 6	
63X MgE2A	.	.	0.01	.	.	<0.002	40 x 15	last of stock
AA C8016	.	.	.	.	.	.	62 x 6	
AA C7857	.	.	.	.	.	.	62 x 6	

MAGNESIUM with ZINC

= class, where 1 = CRM and 2 = RM

#	Number	Zn	Ag	Al	Be	Ca	Cu	Fe	Mn	Ni	Pb	Si	Sn	Sr	Zr	mm Ø x mm H
1	66X MgC4	6.81	0.0074	0.039	(0.0001)	(<0.001)	0.0024	0.006	0.166	0.0009	0.0030	0.06	0.021	(0.00014)	<0.001	50x20 or 40x15
1	66X MgD5	6.25	0.044	0.040	<0.0005	(0.030)	2.88	0.008	0.307	0.0120	0.097	0.134	0.104	.	.	50x20 or 40x15
1	66X MgC3	4.97	0.001	0.011	(0.0002)	.	0.009	(0.001)	0.020	0.006	0.003	(0.003)	<0.002	.	0.13	40 x 15
2	AA C7510	3.04	.	.	0.11	.	0.019	.	.	0.001	.	.	.	.	.	62 x 6
2	AA SM176	(3.0)	.	0.19	.	.	(0.03)	.	(0.2)	.	.	(0.1)	.	.	.	62 x 6
2	AA SM175	(2.0)	.	0.21	.	.	(0.03)	.	(0.2)	.	.	(0.1)	.	.	.	62 x 6
2	66X MgD2	1.13	.	0.30	.	<0.005	0.08	0.014	0.74	0.008	0.012	0.07	0.011	.	<0.01	40 x 15

RM JEWELRY INDIVIDUAL XRF SAMPLES

analysis listed in mass % FLX 0740: 2mm Ø mounted in 36mm Ø x 10mm others: 3mm Ø mounted in 36mm Ø x 10mm

Number	Ag	Au	Cu	Fe	Ir	Ni	Pd	Pt	Rh	Ru	W	Zn
FLX 0720	.	99.99	0.002	.	0.002	.	0.002	0.002	0.002	.	.	.
FLX 0719	.	99.94	0.06	.	.	.	.	.	.	.	.	.
FLX 0701	4.59	91.76	3.65	.	.	.	.	.	.	.	.	.
FLX 0702	4.60	90.12	5.28	.	.	.	.	.	.	.	.	.
FLX 0743	.	80.07	1.12	.	.	14.35	.	.	.	.	.	4.46
FLX 0703	4.18	75.14	4.93	.	.	.	15.75	.	.	.	.	.
FLX 0708	.	75.12	17.47	.	.	5.81	.	.	.	.	.	1.60
FLX 0726	10.16	75.11	14.73	.	.	.	.	.	.	.	.	.
FLX 0728	4.79	75.1	20.11	.	.	.	.	.	.	.	.	.
FLX 0727	8.98	75.07	15.95	.	.	.	.	.	.	.	.	.
FLX 0724	15.07	75.05	9.88	.	.	.	.	.	.	.	.	.
FLX 0725	12.54	75.03	12.43	.	.	.	.	.	.	.	.	.
FLX 0704	2.75	75.03	9.74	.	.	.	12.48	.	.	.	.	.
FLX 0705	10.09	75.03	4.83	.	.	.	10.05	.	.	.	.	.
FLX 0707	2.75	75.02	15.13	.	.	5.04	.	.	.	.	.	2.06
FLX 0706	13.13	75.0	5.42	.	.	.	6.45	.	.	.	.	.
FLX 0710	30.94	59.06	3.48	.	.	.	6.52	.	.	.	.	.
FLX 0709	21.93	59.02	4.05	.	.	.	15.0	.	.	.	.	.
FLX 0903	4.32	58.69	36.99	.	.	.	.	.	.	.	.	.
FLX 0904	13.77	58.65	27.58	.	.	.	.	.	.	.	.	.
FLX 0738	19.7	58.65	19.22	.	.	.	.	.	.	.	.	2.43
FLX 0905	25.06	58.64	14.92	.	.	.	.	.	.	.	.	1.38
FLX 0715	.	58.64	26.18	.	.	6.09	.	.	.	.	.	9.09
FLX 0736	33.01	58.61	7.89	.	.	.	.	.	.	.	.	0.49
FLX 0712	27.36	58.59	4.05	.	.	.	10.0	.	.	.	.	.
FLX 0735	6.65	58.58	31.08	.	.	.	.	.	.	.	.	3.69
FLX 0739	33.39	58.53	8.08	.	.	.	.	.	.	.	.	.
FLX 0729	29.42	58.52	12.06	.	.	.	.	.	.	.	.	.
FLX 0711	10.72	58.49	26.47	.	.	.	.	.	.	.	.	4.32
FLX 0713	4.84	58.47	24.91	.	.	8.39	.	.	.	.	.	3.39
FLX 0714	.	58.44	41.31	.	.	.	.	.	.	.	.	0.25
FLX 0744	26.84	55.37	10.09	.	.	.	6.49	.	.	.	.	1.21
FLX 0737	6.15	38.35	46.89	.	.	.	.	.	.	.	.	8.61
FLX 0716	15.09	37.63	37.97	.	.	.	.	.	.	.	.	9.31
FLX 0731	54.31	37.52	8.17	.	.	.	.	.	.	.	.	.
FLX 0732	58.75	33.71	7.54	.	.	.	.	.	.	.	.	.
FLX 0734	6.3	33.65	50.28	.	.	.	.	.	.	.	.	9.77
FLX 0718	6.21	33.56	49.69	.	.	.	.	.	.	.	.	10.54
FLX 0717	11.92	33.52	41.04	.	.	.	.	.	.	.	.	13.52
FLX 0742	0.005	.	99.99	0.005	.	.	.	.	.	.	.	.
FLX 0740	.	.	0.005	.	0.09	.	.	.	99.90	0.005	.	.
FLX 0722	.	.	.	.	0.02	.	0.02	99.95	0.01	.	.	.
FLX 0741	.	.	4.16	.	.	.	.	95.84	.	.	.	.
FLX 0902	.	.	.	.	.	.	.	95.37	.	.	4.63	.
FLX 0901	.	.	.	.	.	.	.	95.23	.	4.77	.	.
FLX 0723	.	.	0.01	0.01	.	.	99.96	0.01	0.01	.	.	.
FLX 0721	99.97	.	0.008	.	0.005	.	0.005	0.007	0.005	.	.	.
FLX 0730	93.56	.	6.44	.	.	.	.	.	.	.	.	.
FLX 0733	83.75	.	16.25	.	.	.	.	.	.	.	.	.

| Number | Ag | Au | Cu | Fe | Ir | Ni | Pd | Pt | Rh | Ru | W | Zn |

RM LARGER JEWELRY SAMPLES

16 mm Ø mounted in 36mm Ø x 10mm

Number	Ag	Au	Cu	Ni	Pd	Zn
FLX 0743-16	.	80.15	1.05	14.53	.	4.27
FLX 0744-16	26.27	55.54	10.25	.	6.56	1.38
FLX 0704-16	3.00	75.07	9.40	.	12.53	.
FLX 0715-16	.	58.69	26.32	5.99	.	9.00
FLX 0734-16	6.24	33.52	49.82	.	.	10.42
FLX 0732-16	58.61	33.33	8.06	.	.	.

Samples are available individually or as a set/6.

If ordered as a set/6 the part number is **FLX 16mm Set**.

CRM JEWELRY XRF SET

analysis listed in mass % SET ONLY thin layer on 30 mm Ø disc

Number	Ag	Au	Cu	Ni	Pd	Zn
IMN Au 1	66.59	33.32	.	.	.	.
IMN Au 2	44.67	33.36	21.98	.	.	.
IMN Au 3	10.56	37.02	20.10	.	32.49	.
IMN Au 4	19.98	37.05	10.53	32.45	.	.
IMN Au 5	25.07	37.15	23.84	8.96	.	4.92
IMN Au 6	12.54	49.97	12.53	.	24.96	.
IMN Au 7	27.71	57.89	.	.	14.44	.
IMN Au 8	7.65	59.03	11.97	14.57	.	6.78
IMN Au 9	.	57.84	15.31	16.98	.	9.74
IMN Au 10	.	74.84	9.63	12.90	.	2.60
IMN Au 11	.	74.96	.	15.06	9.99	.
IMN Au 12	.	74.99	.	24.96	.	.
IMN Au 13	2.97	91.72	5.28	.	.	.
IMN Au 14	.	96.02	4.01	.	.	.
IMN Au 15	.	98.60	1.40	.	.	.
IMN Au 16	.	99.99	.	.	.	.

RM SILVER AND SILVER ALLOYS

analysis listed in mg/kg 131X: RM, mounted in bakelite, 25 mm Ø x 3 mm IMN: CRM, 40 mm Ø x ~15-20 mm

Number	Cu	As	Au	Bi	Cd	Fe	Ga	In	Ir	Mn	Ni	Pb	Pd	Pt	Sb	Se	Si	Sn	Te	Tl	Zn
131X PAG2	400	8	20	12	5	7	15	.	<1	10	9	12	180	10	12	10	4	14	15	.	550
131X PAG1	75	12	120	40	35	5	60	.	<1	35	25	40	180	35	50	35	30	40	120	.	50
IMN SH1	309	46.5	38.9	44.9	29.7	19.9	.	49.2	.	1.1	1.9	2.6	1.6	1.1	1.6	47.6	.	.	0.95	0.89	2.9
IMN SH2	182	27.2	23.2	28.2	23.3	13.5	.	30.3	.	82.1	12.5	26.0	8.5	9.5	25.1	27.4	.	.	8.6	9.3	22.3
IMN SH3	59.0	11.0	7.7	9.2	9.6	11.3	.	8.7	.	27.3	29.7	44.9	25.7	25.4	48.6	8.7	.	.	25.7	25.8	43.8
IMN SH4	12.3	1.8	1.7	1.4	2.2	28.5	.	(1.3)	.	45.3	51.4	81.1	42.6	42.7	80.0	1.1	.	.	42.3	42.4	95.9
131X AGP2	137	48	138	113	.	73	.	.	.	20	.	112	130	127	93	68	.	129	121	.	77
131X AGP3	44	19	36	29	.	46	.	.	.	12	.	31	32	32	24	17	.	26	30	.	20
131X AGP4	20	5	10	6	.	24	.	.	.	2	.	5	8	10	5	6	.	<1	7	.	7

RM SILVER ALLOYS

mounted in bakelite 25 mm Ø x 3 mm

Number	Au%	Cu%	Pb%
133X AGQ3	2.007	9.760	0.970
133X AGQ2	0.938	5.761	0.472
133X AGQ1	0.237	2.493	0.267

RM SILVER BINARY SETS

set 133X AGB (1-3) only 40 mm Ø x 10 mm

Number	Ag%	Cu%
133X AGB95	94.40	5.13
133X AGB92	91.68	8.04
133X AGB88	87.60	12.26

set 133X AGB (1-4) only 40 mm Ø x 10 mm

Number	Ag%	Cu%
132X AGB100	99.89	0.136
132X AGB93	92.86	7.10
132X AGB85	85.11	14.80
132X AGB75	75.35	24.29

TIN

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

#	Number	Ag	Al	As	Au	Bi	C	Cd	Co	Cr	Cu	Fe	Ga	Ge	Hg	In
2	BCS 192g	.	.	.	.	.	0.001	.	.	.	0.00007	0.0002	.	.	.	.
1	71X SR3	0.050	(0.0014)	0.097	0.0145	0.123	.	0.100	.	.	0.121	0.0203	0.0339	.	0.115	0.104
1	71X SR2	0.0305	0.0022	0.0070	0.0077	0.0403	.	0.0351	0.0064	0.0031	0.116	0.0133	.	0.009	0.141	0.0597
1	71X SR1	0.0121	(0.0016)	0.0102	0.0014	0.0107	.	0.0104	.	.	0.0111	(0.0021)	0.0049	.	0.0142	0.0120
1	71X SR0	0.0018	0.0197	0.0008	0.0007	(0.0025)	.	0.0015	.	.	0.0013	0.0008	0.0027	.	0.0044	0.0047
1	SRM 1727	.	.	(<0.0100)	.	(0.0008)	.	.	(0.0002)	.	(0.0004)	(0.0020)	.	.	.	(0.0020)
1	SRM 1728	0.4591	.	.	.	(0.0128)	.	0.00582	(0.0057)	(0.00012)	3.06	0.0111	.	.	0.011198	(0.0031)
1	SRM 1729	(<0.0075)	(0.0460)	.	.	0.01147	.	.	.	.	(0.0024)	(0.00141)	.	.	.	.

Number	Ni	P	Pb	S	Sb	Se	Si	Sn	Te	Tl	Zn	Melt ‘C	Units
BCS 192g	0.00005	.	0.00007	.	.	.	.	99.997	.	.	0.00006	231.9	300 g block or 100 g chips
71X SR3	0.0371	.	0.306	.	0.128	0.0031	.	.	0.070	.	0.054	.	~40 mm Ø x ~15 mm
71X SR2	0.0183	(0.007)	0.151	.	0.074	.	.	.	0.0246	0.005	0.0058	.	~40 mm Ø x ~15 mm
71X SR1	0.0041	.	0.0324	.	0.0156	(0.0015)	.	.	0.0112	.	0.0146	.	~40 mm Ø x ~15 mm
71X SR0	0.0004	.	0.0113	.	0.0034	0.0005	.	.	0.0009	.	0.0034	.	~40 mm Ø x ~15 mm
SRM 1727	(0.0003)	.	0.003326	.	(0.0040)	.	.	.	.	.	.	.	30 mm x 30 mm x 30 mm
SRM 1728	0.00817	(0.0010)	0.0544	0.00349	(0.0087)	.	(0.0045)	(96.3)	.	.	(0.0156)	.	39 mm Ø x 15 mm
SRM 1729	(0.00022)	.	0.000311	.	(0.00964)	.	(0.0020)	(96.9)	.	.	0.0518	.	39 mm Ø x 15 mm

CRM SPECIALTY TIN BASE LOW-LEAD and LEAD-FREE SOLDERS

analysis listed in mass % * Provisional Analysis 38-40 mm Ø x ~14 mm

Number	Ag	Al	As	Au	Bi	Cd	Co	Cu	Fe	Ge	Hg	Ind	Ni	P	Pb	S	Sb	Se	Zn
74X CA7	4.21	.	0.0095	.	0.0081	0.0045	.	0.333	0.0047	.	0.053	0.0026	0.0007	0.003	0.0965	.	0.0103	.	.
74X CA5	4.00	0.0003	0.0353	0.0049	0.0207	0.0025	.	1.094	0.0019	.	0.0006	0.0111	0.0147	0.0108	0.0116	0.0006	0.133	0.003	0.0009
74X CA2	3.49	0.0002	0.0100	0.0014	0.0329	0.0010	.	0.782	0.0021	.	0.0007	0.0062	0.0304	0.0055	0.0331	(0.0048)	0.0734	0.0015	0.0003
74X CA4	3.02	(0.0019)	0.0094	.	0.061	0.00075	0.0085	0.502	0.0043	.	.	0.0041	0.0542	(0.0014)	0.080	(<0.003)	0.039	0.0027	(0.0011)
74X CA3	2.98	0.0010	0.0039	0.007	0.0156	0.00045	.	0.0869	0.006	0.0093	.	0.0042	0.0077	0.031	0.0491	.	0.0266	.	0.0009
74X HA	2.80	(0.002)	0.0032	.	0.0639	0.0018	.	0.629	0.0029	.	.	0.0090	0.0133	(0.0009)	0.077	.	2.10	(0.0008)	2.73
74X CA8 *	2.45	.	0.014	.	0.017	0.010	0.021	0.95	0.005	0.002	0.10	0.007	0.002	0.007	0.085	.	0.018	.	.
74X CA9	1.002	0.0007	0.0173	0.0025	0.0364	0.0015	.	0.097	0.0085	0.0049	.	0.0165	0.0039	0.011	0.038	.	0.076	.	0.0010
74X E	0.667	(0.0012)	0.0092	.	0.0099	0.0003	.	2.94	0.0008	.	.	0.0074	0.0069	(0.0012)	0.0248	.	0.0168	0.0008	(0.0054)
74X E E	0.656	(0.002)	0.061	.	0.0170	0.0029	.	3.14	(0.004)	.	.	.	0.0116	0.0029	0.0146	.	0.060	0.0031	(0.002)
74X AM	0.562	(0.008)	0.045	.	0.175	0.0072	.	2.97	(0.016)	.	.	.	0.0203	0.018	0.119	.	1.06	0.0115	(0.002)
74X CA1	0.440	0.0262	.	0.0053	0.0131	0.0071	.	0.682	.	.	.	.	.	.	0.077	.	0.0169	.	.
74X WS	0.298	(0.0007)	0.0105	(0.0002)	0.0063	0.00140	.	4.58	(0.0036)	.	.	0.0032	0.0048	0.0122	0.037	.	1.49	.	0.0009
74X CA6	0.282	0.0006	0.0086	0.0106	0.008	0.00033	.	0.629	0.0061	.	0.0064	0.0218	0.0194	0.0046	0.0176	(0.0008)	0.0078	0.0007	0.0006
74X HN	0.143	0.005	0.010	.	0.122	0.0057	.	3.82	0.010	.	.	.	0.185	(0.002)	0.0404	.	0.037	0.0016	(0.0009)
74X OA	0.100	(0.0007)	0.080	(0.0001)	1.065	0.00063	.	3.41	0.007	.	.	0.0034	0.0025	0.0072	0.128	.	0.0098	.	(0.002)
74X GE2	0.079	0.068	.	.	.	0.0086	.	0.713	.	0.479	.	.	0.031	.	0.0467	.	.	.	.
74X HB	0.070	0.0014	0.028	.	(0.007)	0.0095	.	4.56	0.014	.	.	.	1.27	(0.002)	0.036	.	5.40	<0.001	0.0117
74X GE1	0.052	0.065	.	.	.	0.0059	.	0.662	.	0.046	.	.	0.0289	.	0.0339	.	.	.	.
74X TC	0.039	(0.001)	0.024	.	0.106	0.0150	.	4.99	0.0031	.	.	0.0215	0.0167	(0.002)	0.183	.	0.124	0.0473	0.004
74X BZ1	0.004	0.0021	0.0119	.	3.03	0.0012	.	0.026	0.011	.	.	.	0.0097	.	0.0238	.	0.031	.	8.27

TIN ALLOYS

cast # = class, where 1 = CRM and 2 = RM 40 mm Ø x 15 mm

#	Number	Sb	Cu	Pb	Ag	Al	As	Bi	Cd	Co	Fe	In	Ni	P	S	Zn
1	73X SC7	14.01	6.51	0.356	0.006	0.001	0.047	0.009	0.0018	0.0160	0.046	0.014	0.008	.	(<0.001)	(0.003)
1	73X SC11	12.01	11.18	0.061	0.066	0.0025	0.292	0.560	1.75	.	0.011	.	0.452	0.019	.	0.063
1	73X SC8	9.65	3.89	0.037	(0.0015)	0.004	0.121	0.037	0.133	0.017	0.073	0.017	0.014	.	(0.011)	(0.008)
1	73X SC9	8.18	8.47	0.20	0.004	<0.001	0.53	0.066	0.078	0.0030	0.037	0.010	0.008	.	(0.008)	(0.003)
1	73X SC12	8.05	7.72	0.024	0.83	<0.002	0.024	0.020	0.625	.	0.051	.	0.384	.	.	0.020
1	73X SC5	7.03	0.57	0.136	0.063	0.003	0.013	0.43	0.008	0.011	0.004	0.036	0.0058	.	(0.001)	0.001
1	73X SC4	5.94	2.63	0.429	0.0525	(0.0015)	0.0268	0.153	0.0085	0.0020	0.0014	0.0143	0.0130	0.005	.	(0.0010)
2	72X SA6R	6.0	0.10	0.25	.	.	0.050	0.25	0.01	.	0.050	.	.	.	.	0.02
2	72X SA5R	5.0	0.005	0.025	.	.	0.02	0.005	0.02	.	0.003	.	.	.	.	0.001
1	73X SC3	4.60	0.222	0.040	0.013	0.001	0.029	0.020	0.024	0.006	0.017	0.031	0.0136	.	(0.002)	0.001
2	72X SA4R	4.0	0.020	0.080	.	.	0.030	0.10	0.003	.	0.10	.	.	.	.	0.007
1	73X SC2	3.07	1.06	0.029	0.006	(0.002)	0.035	0.62	0.036	0.021	0.030	(0.002)	0.0048	.	<0.001	0.003
1	73X SC1	1.48	2.02	0.067	0.010	0.002	0.008	0.084	0.006	<0.001	0.0025	0.008	0.0041	.	<0.002	0.003
1	73X SC6	0.092	5.17	0.100	0.08	(0.003)	0.204	0.115	0.0125	0.0050	0.007	0.058	0.013	.	(0.004)	0.01
1	71X PB4	0.0059	0.0014	4.00	0.0047	.	0.0045	(0.002)	0.0027	.	.	.	.	.	.	0.0063
1	71X PB3	0.0024	0.0074	2.77	0.0011	.	0.0022	0.0103	0.0008	.	.	.	.	.	.	0.0016

RM TIN ALLOYS

available individually 37 mm Ø x 12 mm

Number	Type	Sb	Sn	Au	Cu	Ag	Al	As	Bi	In	Pb
NF 26	TL-50	.	50.0	.	.	.	.	.	.	.	Rem
NF 27	TL-55	.	55.0	.	.	.	.	.	.	.	Rem
NF 28	TL-60	.	60.0	.	.	.	.	.	.	.	Rem
NF 29	TL-65	.	65.0	.	.	.	.	.	.	.	Rem
NF 3	Solder	0.085	59.20	0.0045	0.0091	.	.	.	.	.	Rem
NF 4	Solder	0.29	60.40	0.010	0.050	.	.	.	.	.	Rem
NF 5	Solder	0.48	61.50	0.046	0.10	.	.	.	.	.	Rem
NF 6	Solder	0.11	62.50	0.10	0.25	.	.	.	.	.	Rem
NF 7	Solder	0.31	63.50	0.25	0.41	.	.	.	.	.	Rem
NF 8	Solder	0.52	64.50	0.49	0.49	.	.	.	.	.	Rem
NF 53	TA-12	12.4	Rem	.	.	.	.	.	.	.	.
NF 52	TA-10	10.1	Rem	.	.	.	.	.	.	.	.
NF 51	TA-8	8.00	Rem	.	.	.	.	.	.	.	.
NF 50	TA-5	5.10	Rem	.	.	.	.	.	.	.	.
NF 49	TA-3	3.10	Rem	.	.	.	.	.	.	.	.
NF 48	TA-2	2.00	Rem	.	.	.	.	.	.	.	.
NF 47	TA-1	1.00	Rem	.	.	.	.	.	.	.	.
NF 54-6	Pig tin	0.001	Rem	.	0.001	0.001	0.001	<0.01	0.000	0.001	0.007

RM BISMUTH AND SULPHUR IN TIN SETS

sold in sets only, as grouped certified analysis in bold, rest is nominal composition 37 mm Ø x 12 mm

Number	Bi	S	Ag	Al	As	Au	Cd	Cu	Fe	In	Ni	P	Pb	Sb	Sn	Zn
NF 59-1	0.008	**<0.0006**	3.98	<0.001	<0.01	<0.001	<0.001	0.51	0.005	0.006	0.001	<0.01	0.056	0.023	Rem	0.001
NF 59-2	0.008	**0.0007**	3.98	<0.001	<0.01	<0.001	<0.001	0.51	0.005	0.006	0.001	<0.01	0.056	0.023	Rem	0.001
NF 59-3	0.008	**0.0048**	3.98	<0.001	<0.01	<0.001	<0.001	0.51	0.005	0.006	0.001	<0.01	0.056	0.023	Rem	0.001
NF 59-4	0.008	**0.0085**	3.98	<0.001	<0.01	<0.001	<0.001	0.51	0.005	0.006	0.001	<0.01	0.056	0.023	Rem	0.001
NF 59-5	0.008	**0.020**	3.98	<0.001	<0.01	<0.001	<0.001	0.51	0.005	0.006	0.001	<0.01	0.056	0.023	Rem	0.001
NF 60-1	**2.01**	<0.001	0.001	<0.001	<0.01	<0.001	<0.001	0.001	<0.001	0.005	<0.001	<0.01	Rem	0.005	60	<0.001
NF 60-2	**2.39**	<0.001	0.001	<0.001	<0.01	<0.001	<0.001	0.001	<0.001	0.005	<0.001	<0.01	Rem	0.005	60	<0.001
NF 60-3	**3.00**	<0.001	0.001	<0.001	<0.01	<0.001	<0.001	0.001	<0.001	0.005	<0.001	<0.01	Rem	0.005	60	<0.001
NF 60-4	**3.99**	<0.001	0.001	<0.001	<0.01	<0.001	<0.001	0.001	<0.001	0.005	<0.001	<0.01	Rem	0.005	60	<0.001

CRM TIN BASE SETS

available in sets only, as grouped

Number	As	Bi	Cd	Cu	Fe	Ni	Pb	Sb	Sn	Zn	
IMN L89 1	0.019	0.012	0.19	3.20	0.18	0.010	0.072	5.66	Rem	0.099	Bearing Alloy, Rods 10 mm Ø x 100 mm
IMN L89 2	0.037	0.026	0.091	4.15	0.086	0.031	0.13	6.39	Rem	0.059	
IMN L89 3	0.065	0.052	0.041	3.49	0.058	0.090	0.29	7.41	Rem	0.042	
IMN L89 4	0.12	0.099	0.021	2.81	0.028	0.16	0.52	8.14	Rem	0.020	
IMN L89 5	0.18	0.20	0.011	2.12	0.013	0.33	1.11	8.86	Rem	.	
IMN L89 6	0.029	0.014	0.19	4.51	0.17	0.014	0.20	8.03	Rem	0.096	
IMN LA 1	0.012	0.014	1.41	2.45	0.012	0.011	3.18	6.79	Rem	0.0016	Bearing Alloy, Discs 40 mm Ø x 25 mm
IMN LA 2	0.092	0.033	0.88	3.84	0.018	0.094	2.17	7.81	Rem	.	
IMN LA 3	0.24	0.059	0.50	8.13	0.059	0.28	1.19	10.22	Rem	0.0095	
IMN LA 4	0.43	0.085	0.096	6.95	0.080	0.45	0.41	11.66	Rem	.	
IMN LA 5	0.54	0.099	0.011	5.45	0.096	0.53	0.070	13.58	Rem	0.020	
IMN L 1	0.051	0.17	0.0020	0.11	.	.	Rem	0.52	56.06	0.00093	Solder, Discs 40 mm Ø x 30 mm
IMN L 2	0.034	0.11	0.0043	0.075	(0.011)	.	Rem	0.35	59.09	0.0019	
IMN L 3	0.092	0.22	0.0065	0.034	(0.023)	.	Rem	0.14	60.18	0.0064	
IMN L 4	0.017	0.055	0.0080	0.013	(0.0085)	.	Rem	0.079	62.81	0.0011	
IMN L 5	0.0035	0.014	0.0097	0.0037	.	.	Rem	0.011	64.96	0.0056	

RM TIN BASE SETS

sold in sets only, as grouped 37 mm Ø x 12 mm

Number	Ag	As	Bi	Cd	Cu	Fe	Ge	Hg	In	Ni	P	Pb	Pd	Sb	Sn	Zn
NF 10-1	.	.	.	.	.	.	.	.	.	.	.	Rem	0.01	.	60	.
NF 10-2	.	.	.	.	.	.	.	.	.	.	.	Rem	0.05	.	60	.
NF 10-3	.	.	.	.	.	.	.	.	.	.	.	Rem	0.10	.	60	.
NF 10-4	.	.	.	.	.	.	.	.	.	.	.	Rem	0.25	.	60	.
NF 14-1	.	.	.	.	.	.	.	.	.	.	0.0050	Rem	.	.	63.0	.
NF 14-2	.	.	.	.	.	.	.	.	.	.	0.009	Rem	.	.	63.0	.
NF 14-3	.	.	.	.	.	.	.	.	.	.	0.02	Rem	.	.	63.0	.
NF 45-1	.	0.03	0.10	0.015	0.015	<0.01	.	.	.	.	.	0.04	.	4.0	Rem	<0.1
NF 45-2	.	0.02	0.005	0.005	0.003	<0.01	.	.	.	.	.	0.05	.	5.0	Rem	<0.1
NF 45-3	.	0.05	0.25	0.03	0.08	<0.01	.	.	.	.	.	0.20	.	6.0	Rem	<0.1
NF 58-1	0.32	.	0.12	.	0.69	.	.	0.0003	.	.	0.001	0.085	.	.	Rem	.
NF 58-2	0.21	.	0.095	.	0.79	.	.	0.0024	.	.	0.006	0.008	.	.	Rem	.
NF 58-3	0.51	.	0.077	.	0.59	.	.	0.0043	.	.	0.010	0.040	.	.	Rem	.
NF 63-1	0.74	.	.	.	0.077	.	0.079	.	0.200	0.068	.	0.009	.	.	Rem	.
NF 63-2	1.02	.	.	.	0.104	.	0.052	.	0.005	0.027	.	0.18	.	.	Rem	.
NF 63-3	1.18	.	.	.	0.53	.	0.005	.	0.053	0.066	.	0.024	.	.	Rem	.
NF 63-4	1.50	.	.	.	0.194	.	0.025	.	0.027	0.12	.	0.012	.	.	Rem	.
NF 63-5	1.01	.	.	.	0.51	.	0.010	.	0.11	0.065	.	0.018	.	.	Rem	.
NF 63-6	2.56	.	.	.	0.50	.	0.042	.	<0.001	0.0073	.	0.009	.	.	Rem	.
NF 56-1	2.54	.	0.006	.	0.91	.	.	0.018	.	.	0.020	0.10	.	.	Rem	.
NF 56-2	3.77	.	0.50	.	0.60	.	.	0.0004	.	.	0.009	0.051	.	.	Rem	.
NF 56-3	3.53	.	.	.	0.4	.	.	0.014	.	.	0.003	0.009	.	0.50	Rem	.
NF 56-4	3.26	.	0.20	.	0.30	.	.	0.0045	.	.	0.021	0.22	.	.	Rem	.
NF 56-5	4.49	.	0.029	.	0.54	.	.	0.0024	.	.	0.006	0.26	.	.	Rem	.
NF 56-6	4.24	.	0.096	.	0.80	.	.	0.009	.	.	0.012	0.024	.	.	Rem	.
NF 57-1	3.00	.	0.004	.	0.49	.	.	0.0016	.	.	0.004	0.076	.	.	Rem	.
NF 57-2	4.01	.	.	.	0.46	.	.	0.0002	.	.	0.006	<0.001	.	.	Rem	.
NF 46-1	3	0.01	0.05	.	0.20	.	.	.	.	.	.	0.02	.	0.20	Rem	0.01
NF 46-2	4	0.02	0.10	.	0.10	.	.	.	.	.	.	0.05	.	0.10	Rem	0.0025
NF 46-3	5	0.05	0.25	.	0.03	.	.	.	.	.	.	0.10	.	0.05	Rem	0.005

RM TIN BASE SETS

sold in sets only, as grouped — 37 mm Ø x 12 mm

Number	Ag	Al	As	Au	Bi	Cd	Co	Cu	Fe	In	Ni	Pb	Sb	Sn	Zn
NF 54-1	0.005	0.005	<0.1	.	0.002	0.0002	0.002	0.01	<0.1	0.005	0.002	0.03	0.005	Rem	<0.1
NF 54-2	0.01	0.01	<0.1	.	0.005	0.0005	0.005	0.05	<0.1	0.01	0.005	0.15	0.01	Rem	<0.1
NF 54-3	0.03	0.03	<0.5	.	0.01	0.001	0.01	0.15	<0.1	0.02	0.01	0.40	0.02	Rem	<0.1
NF 54-4	0.06	.	<0.5	.	0.02	0.005	0.02	0.30	<0.1	0.04	0.02	0.70	0.04	Rem	<0.1
NF 54-5	0.10	.	<0.75	.	0.035	0.01	.	0.50	.	0.08	.	1.0	0.08	Rem	<0.1
NF 1-1	0.0006	<0.1	<0.001	0.001	<0.001	0.0006	.	0.0005	<0.1	<0.001	<0.1	Rem	0.003	60.0	<0.1
NF 1-2	0.001	<0.1	0.001	0.005	0.005	0.002	.	0.001	<0.1	0.001	<0.1	Rem	0.02	62.0	<0.1
NF 1-3	0.005	<0.1	0.005	0.01	0.01	0.005	.	0.005	<0.1	0.01	<0.1	Rem	0.05	63.0	<0.1
NF 1-4	0.01	<0.1	0.015	0.02	0.02	0.01	.	0.01	<0.1	0.04	<0.1	Rem	0.10	65.0	<0.1
NF 61-1	1.54	.	.	.	.	.	.	.	.	.	.	Rem	.	62.0	.
NF 61-2	1.81	.	.	.	.	.	.	.	.	.	.	Rem	.	62.0	.
NF 61-3	2.33	.	.	.	.	.	.	.	.	.	.	Rem	.	62.0	.
NF 61-4	2.58	.	.	.	.	.	.	.	.	.	.	Rem	.	62.0	.
NF 9-1	3.00	.	.	.	0.048	.	.	0.073	.	.	.	Rem	0.51	59.90	.
NF 9-2	2.00	.	.	.	0.093	.	.	0.040	.	.	.	Rem	0.38	61.90	.
NF 9-3	1.00	.	.	.	0.25	.	.	0.010	.	.	.	Rem	0.23	63.60	.

CRM TITANIUM

= class, where 1 = CRM and 2 = RM

#	Number	Al	B	C	Co	Cr	Cu	Fe	H	Mn	Mo	N	Nb	Ni	O
1	IARM 311A	0.32	.	0.009	.	0.013	0.0013	0.060	0.0021	0.0013	0.0012	0.012	(0.002)	0.014	0.083
1	BS T-80	0.0746	0.0040	0.0166	0.0146	0.0050	0.0375	0.0093	0.0059	0.0244	0.0100	0.0041	0.0367	0.0156	0.0768
1	BCR 090	(0.074)	0.00282	.	0.0501	0.0533	0.0513	0.0563	.	0.0314	0.0488	.	(0.0492)	0.0667	.
1	BS T-81	0.0664	0.0082	0.0161	0.0395	0.0294	0.0244	0.1144	0.0035	0.0404	0.0279	0.0037	0.0191	0.0090	0.0669
1	BS T-4A	0.040	.	0.014	.	0.026	(0.001)	0.19	(0.0027)	0.003	0.0006	0.005	.	0.014	(0.37)
1	IARM 303A	0.008	.	0.011	.	0.021	(0.002)	0.051	0.0011	0.002	(0.001)	0.0069	<0.0005	0.022	0.134
1	IARM 312A	0.006	.	0.004	(0.001)	(0.002)	(0.002)	0.028	0.0049	(0.001)	(0.002)	0.0023	.	(0.002)	0.066
1	BS T-2A	0.005	.	(0.007)	.	0.018	(0.001)	0.156	(0.0020)	0.003	0.002	(0.0044)	.	0.021	(0.12)
1	IARM 174C	(0.003)	.	0.0057	(0.001)	0.009	0.0015	0.28	0.0027	0.0019	0.002	0.004	(0.004)	0.007	0.34
2	BS T-26	0.002	.	0.005	.	0.037	0.037	0.055	.	0.006	0.028	(0.005)	.	0.002	(0.069)

BCR: HIP; 090A: 40mm Ø x 20mm; 090B: ~25g of 0.2g cubes BS: 32mm Ø x 12mm IARM: 31mm Ø x 2 or 18mm

Number	P	Pd	Ru	S	Si	Sn	V	W	Y	Zr	Grade
IARM 311A	.	.	.	.	0.005	0.0020	0.004	(0.002)	(0.0002)	0.012	BT1-0
BS T-80	.	0.1424	0.0469	.	(0.0035)	0.0257	0.0446	0.0174	0.0010	0.0178	Ti Cp 11
BCR 090	.	.	.	.	.	(0.071)	(0.057)	(0.050)	.	(0.0436)	
BS T-81	.	0.0398	0.0310	.	0.0474	0.0155	0.0186	0.0372	0.0017	0.0163	Ti Cp 17
BS T-4A	(0.001)	.	.	(0.0004)	0.011	0.005	(0.001)	<0.002	.	<0.002	Ti Cp 1
IARM 303A	.	0.139	.	.	0.004	<0.005	0.005	.	(0.0003)	(0.001)	Ti Cp 7
IARM 312A	.	(0.004)	.	(0.001)	0.006	0.0012	(0.002)	.	(0.0004)	(0.001)	Ti CP 4.1
BS T-2A	.	.	.	(0.0004)	0.002	0.006	<0.002	<0.002	.	<0.003	Ti Cp 1
IARM 174C	.	.	.	(0.0005)	(0.006)	0.023	(0.002)	.	(0.0004)	(0.003)	Ti CP 1.4
BS T-26	.	.	.	(0.001)	(0.01)	0.025	0.020	0.57	.	0.005	Ti 0.5W

RM TITANIUM ALLOY XRF SAMPLES

cast typical analysis XRF ONLY 32 mm Ø x 8 mm buttons

Number	Al	Fe	Mn	Mo	Nb	Pd	Si	Sn	V	Zr
101P 811	8.0	0.03	.	1.0	.	.	.	.	1.0	.
101P 6246	6.05	0.055	.	5.99	.	.	0.06	2.00	.	3.92
101P 367	6.0	0.1	.	.	7.0	.	.	.	.	.
101P 315	1.5	0.05	1.5	.	.	.	.	.	.	.
101P 260	.	0.05	.	.	.	0.15	.	.	.	.

TITANIUM ALLOYS

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

#	Number	Al	Cr	Fe	Mn	Mo	Nb	Sn	V	W	Zr	C	H	N	O	S
1	SRM 2062	30.31	.	.	.	.	10.78	.	.	4.38	.	.	.	.	.	.
1	IARM 269A	7.79	0.010	0.133	(0.001)	1.02	<0.005	(0.01)	1.00	.	0.0010	0.015	0.0059	0.0039	0.104	(0.002)
2	CT 6AL4V	6.39	.	0.14	.	.	.	.	4.01	.	.	.	.	.	.	.
1	SRM 654b	6.34	0.025	0.23	.	0.013	.	0.023	4.31	.	0.008	.	(0.002)	.	(0.17)	(0.001)
1	BS T-5A	6.33	0.013	0.170	<0.002	0.004	.	0.009	4.10	<0.01	0.003	0.011	(0.0028)	0.008	0.190	<0.001
1	101X Ti3	6.14	0.0194	0.104	.	0.0213	.	0.0215	4.00	.	0.0152	0.0619	0.0034	0.010	0.198	.
1	IARM 177C	6.02	0.012	0.033	0.0015	1.96	.	2.02	0.020	.	3.99	0.005	0.0014	0.0022	0.107	.
1	101X Ti2	6.02	0.0054	0.053	.	2.08	.	2.05	.	.	3.97	0.016	0.0076	0.0053	0.143	.
1	101X Ti6	5.99	0.0636	0.221	0.0623	0.063	0.0639	0.067	3.95	0.066	0.0653	0.0340	0.0043	0.0137	0.0171	0.0061
1	BCR 089	5.97	.	.	0.029	.	.	.	3.976	.	.	.	.	.	.	.
1	IARM 176C *	5.97	0.011	0.14	(0.001)	0.005	.	0.007	4.00	.	(0.003)	0.012	0.0034	0.005	0.111	.
1	IARM 300A *	5.97	0.009	0.19	(0.001)	(0.001)	6.9	(0.01)	(0.01)	.	.	0.006	0.0019	0.004	0.16	.
1	IARM 336A *	5.9	(0.001)	0.11	(0.01)	6.2	.	2.03	(0.004)	.	3.93	0.005	0.0022	(0.002)	0.102	.
1	IARM 285A	5.81	(0.001)	0.037	(0.001)	0.77	2.00	(0.004)	(0.004)	(0.01)	(0.002)	0.007	0.0038	0.0043	0.076	(0.0004)
1	IARM 337A *	5.6	2.01	0.12	(0.004)	2.05	(0.003)	1.97	(0.002)	.	1.91	0.007	0.005	0.002	0.103	.
1	IARM 314A	5.50	3.09	0.46	0.002	4.78	.	(0.01)	4.98	.	0.002	0.008	0.004	0.0034	0.155	.
1	101X Ti5	5.328	2.996	0.162	0.073	3.978	.	2.093	0.0779	0.084	2.093	0.089	0.0039	0.0148	0.172	0.0114
1	IARM 271A	5.28	0.016	0.31	(0.002)	0.011	.	2.49	0.09	.	0.015	0.026	0.013	0.012	0.16	(0.002)
1	IARM 315A	4.58	0.016	0.065	0.008	0.008	.	0.004	1.84	.	0.0044	0.011	0.0016	0.0052	0.099	.
1	IARM 280A	4.11	0.0055	0.044	(0.002)	4.01	(0.001)	2.07	0.023	.	(0.002)	0.005	0.0015	0.0014	0.19	(0.001)
1	101X Ti4	3.95	0.0688	0.125	0.0653	0.301	0.070	0.072	0.044	0.072	0.0668	0.115	0.0050	0.0195	0.199	.
1	IARM 286A	3.25	6.3	0.09	(0.002)	4.15	.	(0.003)	8.1	.	4.08	0.010	0.0039	0.010	0.089	(0.001)
1	IARM 297A	3.12	0.007	1.86	0.007	0.004	(0.06)	0.006	9.71	.	(0.002)	0.014	0.0045	0.008	0.109	(0.001)
1	SRM 1128	3.06	2.96	0.134	.	.	.	3.04	15.13	.	.	0.011	.	.	.	.
1	101X Ti1	3.08	.	0.035	.	14.98	2.75	.	.	.	.	0.0417	0.0069	0.005	0.169	(0.0025)
1	IARM 261A	3.00	0.013	0.19	0.0011	(0.003)	.	0.008	2.48	.	(0.002)	0.007	0.0023	0.007	0.10	(0.001)
1	SRM 643	.	.	.	11.6	.	.	.	.	.	.	.	.	.	.	.
1	SRM 642	.	.	.	9.0	.	.	.	.	.	.	.	.	.	.	.
1	SRM 641	.	.	.	6.6	.	.	.	.	.	.	.	.	.	.	.
2	BS T-24	0.002	0.54	0.54	4.7	0.51	.	0.019	1.22	0.37	(0.001)	0.005	.	0.006	(0.09)	(0.002)
2	BS T-23	0.003	0.91	0.93	3.70	0.91	.	0.025	0.93	0.87	(0.002)	0.006	.	(0.007)	(0.13)	(0.002)
2	BS T-22	0.004	1.22	1.19	2.02	1.15	.	0.019	0.50	0.51	(<0.01)	0.005	.	(0.01)	(0.09)	(0.002)

#	Number	Al	Cr	Fe	Mn	Mo	Nb	Sn	V	W	Zr	C	H	N	O	S

Number	B	Co	Cu	Ni	P	Pd	Ru	Si	Ta	Ti	Y	Units
SRM 2062	.	.	.	.	.	.	.	.	.	53.92	.	24 mm Ø x 2 mm (thin)
IARM 269A	.	.	0.003	0.010	.	.	.	0.080	.	.	.	31 mm Ø x 2 or 18 mm
CT 6AL4V	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
SRM 654b	.	.	0.008	0.028	.	.	.	0.045	.	.	.	31 mm Ø x 19 mm
BS T-5A	.	.	0.0025	0.012	.	.	.	0.02	.	.	.	38 mm Ø x 12 mm
101X Ti3	.	.	0.0047	0.0303	.	.	.	0.013	.	.	0.0101	40 mm Ø x 13 mm
IARM 177C	(0.001)	(0.001)	(0.003)	0.011	.	(0.004)	.	0.086	.	.	(0.0002)	31 mm Ø x 2 or 18 mm
101X Ti2	.	.	(0.003)	0.0073	.	.	.	0.110	.	.	0.0002	40 mm Ø x 13 mm
101X Ti6	0.0080	0.0621	0.0632	0.0421	0.0069	0.141	0.062	0.054	0.084	.	0.0087	40 mm Ø x 13 mm
BCR 089	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm
IARM 176C *	.	.	(0.003)	0.011	.	(0.004)	.	0.016	.	89.6	(0.0001)	31 mm Ø x 18 or 2 mm
IARM 300A *	.	.	(0.003)	0.008	.	.	.	0.019	.	(86.7)	.	31 mm Ø x 2 or 18 mm
IARM 336A *	.	(0.001)	(0.003)	(0.002)	(0.001)	(0.003)	.	0.018	.	(81.5)	(0.0003)	31 mm Ø x 18 or 2 mm
IARM 285A	(0.002)	(0.002)	0.008	0.006	.	.	.	0.009	0.97	.	0.0024	31 mm Ø x 2 or 18 mm
IARM 337A *	.	(0.001)	(0.002)	0.011	.	(0.001)	.	0.14	.	(86)	(0.0004)	31 mm Ø x 18 or 2 mm
IARM 314A	.	(0.003)	(0.002)	0.022	(0.005)	.	.	0.02	.	.	(0.0003)	31 mm Ø x 2 or 18 mm
101X Ti5	0.0098	.	0.277	0.047	0.0095	.	.	0.092	.	.	0.0111	40 mm Ø x 13 mm
IARM 271A	.	.	.	0.035	(0.002)	.	.	0.021	.	.	.	31 mm Ø x 2 or 18 mm
IARM 315A	.	(0.004)	0.005	0.012	(0.001)	(0.003)	.	0.014	.	.	(0.0002)	31 mm Ø x 2 or 18 mm
IARM 280A	.	(0.002)	0.003	0.012	.	(0.002)	.	0.47	.	.	(0.0003)	31 mm Ø x 2 or 18 mm
101X Ti4	0.0093	0.066	0.0645	0.779	0.0076	0.145	0.054	0.072	0.096	.	0.0079	40 mm Ø x 13 mm
IARM 286A	.	(0.006)	(0.004)	0.013	.	(0.02)	.	0.030	.	.	(0.001)	31 mm Ø x 2 or 18 mm
IARM 297A	(0.003)	.	(0.002)	0.0041	.	.	.	0.022	(0.01)	.	.	31 mm Ø x 2 or 18 mm
SRM 1128	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm
101X Ti1	.	.	0.05	0.0099	.	.	.	0.201	.	.	0.0030	40 mm Ø x 13 mm
IARM 261A	.	.	.	0.006	.	.	.	0.012	.	.	(0.001)	31 mm Ø x 2 or 18 mm
SRM 643	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
SRM 642	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
SRM 641	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
BS T-24	.	.	0.020	(0.007)	.	.	.	(0.01)	.	.	.	32 mm Ø x 12 mm
BS T-23	.	.	0.012	0.004	.	.	.	(<0.01)	.	.	.	32 mm Ø x 12 mm
BS T-22	.	.	0.04	0.008	.	.	.	(0.02)	.	.	.	32 mm Ø x 12 mm

Number	B	Co	Cu	Ni	P	Pd	Ru	Si	Ta	Ti	Y	Units

ZINC

= class, where 1 = CRM and 2 = RM analysis listed in mass % Trace = informational values such as (<0.001) or lower

#	Number	Pb	Al	Cd	Cu	Fe	In	Mg	Mn	Ni	Sb	Sn	Tl
1	41X Z6	0.031	0.0096	0.0093	0.0088	(0.002)	0.0228	<0.0005	0.0002	0.0002	.	0.0038	.
1	41X Z5	0.0275	0.041	0.0310	0.0296	0.011	0.0050	0.0098	0.0138	0.00054	0.0098	0.0275	0.0073
1	ERM-EB325	0.0142	.	0.00947	0.00475	0.00561	.	.	.	.	.	0.00461	0.00368
1	41X Z3	0.0080	0.0164	0.0050	0.0066	0.0022	0.0010	0.0138	0.0029	0.0029	0.0045	0.0029	0.0012
1	41X Z11	0.0077	0.0261	0.0155	0.0116	0.0019	0.0345	.	.	.	0.0026	0.0072	(0.0010)
1	41X Z4	0.00584	0.0065	0.00437	0.00326	0.0148	0.00304	0.00331	0.00286	0.00320	0.00340	0.00221	0.00277
2	BS SP-5	0.005	0.0003	<0.0004	<0.001	<0.001	.	<0.002	.	.	<0.001	0.0010	.
1	ERM-EB323	0.00486	.	0.000651	0.00189	0.00113	.	.	.	.	.	0.00187	0.00108
1	BCR 327	0.004094	.	0.03014	(0.000056)	0.01440	.	.	.	.	.	.	.
1	BCR 326	0.003070	Trace	0.02030	0.01048	0.02648	.	.	.	.	.	.	.
2	BS SP-A	0.003	0.051	.	<0.0005	0.011	.	.	.	.	0.099	<0.001	.
1	41X Z2	0.00264	0.00082	0.00168	0.00179	0.0077	0.00057	0.00014	0.00053	0.00131	0.00057	0.00159	0.00117
1	ERM-EB324	0.00261	.	0.00489	0.000987	0.00585	.	.	.	.	.	0.00098	0.00199
2	BCS 194e	0.002	.	.	.	0.001	.	.	.	.	.	.	.
1	41X Z1	0.00164	0.00009	0.00059	0.00098	0.00239	0.00023	(0.00008)	0.00021	0.00032	0.00021	0.00052	0.00077
1	BAM M601	0.00157	<0.00005	0.000055	0.000189	0.000220	<0.000005	.	.	.	.	.	0.000225
1	ERM-EB322	0.00150	.	0.001508	0.000589	0.00191	.	.	.	.	.	0.00056	0.000528
1	SRM 683	0.00111	.	0.00011	0.00059	0.00022	Trace	.	Trace	.	.	(0.000002)	(0.00002)
1	SRM 631	(0.001)	0.50	0.0002	0.0013	0.005	0.0023	Trace	0.00015	Trace	.	0.0001	.
1	BCR 321	0.000485	<0.00007	(0.000023)	(0.000097)	(0.000222)	<0.00002	.	.	.	.	<0.00005	0.000078
1	SRM 682 *	.	(<0.000003)	(0.00001)	0.0000042	(0.00001)	.	(<0.00001)	Trace	(<0.00001)	.	(0.000002)	(<0.00002)

Number	Ag	Bi	Cr	Ga	Ge	Hg	Si	Ti	Zn	Melt ‘C	Units
41X Z6	.	0.0122	(0.0001)	.	.	.	.	.	.	.	50 mm Ø x 20 mm
41X Z5	.	.	.	.	.	.	(0.002)	0.00044	.	.	50 mm Ø x 20 mm
ERM-EB325	.	.	.	.	.	.	.	.	.	.	60 mm Ø x 30 mm
41X Z3	.	0.0022	.	.	.	(0.0013)	.	.	.	.	50 mm Ø x 20 mm
41X Z11	.	0.0189	.	.	.	(0.0009)	.	.	.	.	50 mm Ø x 20 mm
41X Z4	.	0.00319	.	.	.	0.0025	.	.	.	.	50 mm Ø x 20 mm
BS SP-5	.	.	.	.	.	.	.	.	.	.	37 mm Ø x 12 mm
ERM-EB323	.	.	.	.	.	.	.	.	.	.	60 mm Ø x 30 mm
BCR 327	.	.	.	.	.	.	.	.	.	.	80 mm Ø x 20 mm
BCR 326	.	.	.	.	.	.	.	.	.	.	80 mm Ø x 20 mm
BS SP-A	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 14 mm
41X Z2	.	0.00052	.	.	.	0.00029	.	.	.	.	50 mm Ø x 20 mm
ERM-EB324	.	.	.	.	.	.	.	.	.	.	60 mm Ø x 30 mm
BCS 194e	.	.	.	.	.	.	.	.	99.99	419.5	300 g(4.5 x 3.5 x 3 cms)
41X Z1	.	0.00027	.	.	.	0.00013	.	.	.	.	50 mm Ø x 20 mm
BAM M601	.	.	.	.	.	.	.	.	.	.	45 mm Ø x 30 mm
ERM-EB322	.	.	.	.	.	.	.	.	.	.	60 mm Ø x 30 mm
SRM 683	0.00013	.	.	Trace	.	.	.	.	.	.	Cylinder segment 57mm Ø x 25mm x 19mm
SRM 631	Trace	.	0.0001	(0.002)	(0.0002)	.	.	.	.	.	45 mm x 45 mm x 19 mm
BCR 321	.	.	.	.	.	.	.	.	.	.	80 mm Ø x 20 mm
SRM 682 *	(0.000002)	.	(<0.000006)	.	.	.	(<0.00005)	.	.	.	Cylinder segment 57mm Ø x 25mm x 19mm

* SRM 682 has trace informational B, Be, C, Ca, Cl, F, K, Li, N, and Nb.

CRM ELECTROLYTIC ZINC SETS

available in sets only, as grouped

Number	Al	Cd	Cu	Fe	Pb	Sn	Zn	
IMN ZA 1	.	0.0042	(0.0032)	0.00167	0.025	0.0038	Rem	Rods 10 mm Ø x 100 mm
IMN ZA 2	.	0.0029	0.0013	0.0061	0.011	0.0012	Rem	
IMN ZA 3	.	0.00092	0.00011	0.00078	0.0028	0.00036	Rem	
IMN ZA 4	.	0.00049	0.00032	0.00040	0.0016	0.00011	Rem	
IMN ZE 1	0.012	0.0019	0.011	0.020	0.018	0.0018	Rem	Discs 40 mm Ø x 25 mm
IMN ZE 2	0.0035	0.0031	(0.00037)	0.0052	0.0078	0.0074	Rem	
IMN ZE 3	0.025	0.0050	0.0032	.	0.0052	0.015	Rem	
IMN ZE 4	.	0.00023	0.013	(0.00035)	0.0012	0.0017	Rem	
IMN ZE 5	0.0011	0.0060	0.0049	0.011	0.0004	0.00045	Rem	

CRM ZINC RoHS MONITOR

cast 50 mm Ø x 20 mm

Number	Cd	Cr	Hg	Pb
41X ZSC6	0.215	<0.0002	0.029	0.0077
41X ZSC3	0.119	0.0148	0.0021	0.0273
41X ZSC1	0.0288	0.0039	0.026	0.0621
41X ZSC4	0.0131	0.0299	0.050	0.156
41X ZSC2	0.0016	0.0036	0.0053	0.111

CRM ZAMAK (MAZAK) SPECIFICATIONS AND SUGGESTED SAMPLES

42X, 43X: ~50 mm Ø x ~20 mm BCR: 80 mm Ø x 20 mm SRM: 44 mm x 44 mm x 19 mm

Number	Al	Cu	Mg	Ni	Cd	Cr	Fe	Mn	Pb	Sn
Zamak 2	**3.9-4.3**	**2.6-2.9**	**0.025-0.05**	.	**<0.003**	.	**<0.075**	.	**<0.004**	**<0.002**
43X Z4	4.76	**3.21**	0.043	0.0286	0.0025	0.0063	(0.064)	0.088	(0.0024)	(0.0023)
43X Z7	3.68	**3.14**	0.062	0.0005	0.00092	0.0003	0.029	0.0025	0.0058	0.0031
43X Z6	4.02	**2.72**	0.0256	0.029	0.0016	0.0006	0.019	0.0006	0.0016	0.0053
Zamak 5	**3.9-4.3**	**0.75-1.25**	**0.030-0.06**	.	**<0.003**	.	**<0.075**	.	**<0.004**	**<0.002**
Zamak 6	**3.9-4.3**	**0.75-1.25**	**<0.05**	.	**<0.003**	.	**<0.075**	.	**<0.004**	**<0.002**
43X Z3	3.64	**1.58**	0.0143	0.0061	0.0132	0.004	0.061	0.0125	0.01	0.0125
BCR 360	3.427	**1.234**	0.0705	0.0267	0.00595	.	.	.	0.00739	0.00330
BCR 359	3.711	**0.989**	0.0557	0.00926	0.00298	.	0.01197	.	0.00362	0.001693
SRM 630	4.30	**0.976**	0.030	0.0027	0.0048	0.0031	0.023	0.0106	0.0083	0.0040
43X Z2	3.53	**0.949**	0.093	0.00037	0.0044	(0.00015)	0.012	0.0025	0.0088	0.0061
BCR 361	4.068	**0.798**	.	.	(0.000080)	.	0.001034	.	0.000531	0.00463
SRM 628	4.59	**0.611**	0.0094	0.030	0.0040	0.0087	0.066	0.0091	0.0045	0.0017
BCR 357	4.227	**0.5849**	0.0273	0.000982	0.000283	.	0.00257	.	0.00138	0.000351
43X Z1	4.50	**0.501**	0.0145	0.0010	0.00037	0.0009	0.0058	0.0005	0.0017	(0.0007)
Zamak 3	**3.9-4.3**	**<0.10**	**0.025-0.05**	.	**<0.003**	.	**<0.075**	.	**<0.004**	**<0.002**
Zamak 7	**3.9-4.3**	**<0.10**	**0.010-0.020**	**0.005-0.02**	**<0.002**	.	**<0.075**	.	**<0.002**	**<0.001**
BCR 356	4.434	**0.3944**	0.01323	0.000343	0.000073	.	0.00315	.	0.000987	(0.000032)
42X Z6	3.67	**0.238**	0.177	0.00030	0.0039	0.0034	0.008	0.0157	0.0093	0.0057
42X Z3	3.72	**0.159**	0.0288	0.0102	0.0048	0.0020	(0.047)	0.0252	0.0060	0.0030
42X Z12	4.717	**0.156**	0.0488	0.0413	0.00277	0.00063	0.0457	0.0483	0.0079	0.0022
SRM 627	3.88	**0.132**	0.031	0.0029	0.0051	0.0038	0.023	0.014	0.0082	0.0042
42X Z5	4.24	**0.1095**	0.0471	0.0325	0.0027	(0.00024)	0.021	0.0023	0.0051	0.0022
BCR 355	3.443	**0.1035**	0.0786	0.0268	0.00581	.	.	.	0.00569	0.00291
42X Z4	3.55	**0.063**	0.058	0.0177	0.0076	.	0.012	0.0077	0.0113	0.0060
SRM 626	3.56	**0.056**	0.020	0.047	0.0016	0.0395	0.103	0.048	0.0022	0.0012
SRM 625	3.06	**0.034**	0.070	0.0184	0.0007	0.0128	0.036	0.031	0.0014	0.0006
BCR 354	3.726	**0.03123**	0.0602	0.00831	0.00297	.	.	.	0.00308	0.00141
42X Z2	4.08	**0.0307**	0.0150	0.0032	0.0020	0.0014	0.0072	0.0058	0.0064	0.0063
BCR 353	3.949	**0.01000**	0.04525	.	0.001044	.	.	.	0.00244	0.00056
BCR 352	4.150	**0.003126**	0.02830	0.000674	0.000288	.	.	.	(0.00064)	0.00030
42X Z1	4.61	**0.0019**	0.0041	0.0017	0.0005	<0.0005	0.0024	0.0007	0.0022	0.0006
BCR 351	4.355	**0.001213**	0.01310	(0.00019)	(0.000021)	.	.	.	0.000450	<0.0001
Zamak 8	**7.8-9.0**	**0.70-1.40**	**0.015-0.030**	**<0.02**	**<0.005**	.	**<0.1**	.	**<0.005**	**<0.003**
43X Z14	8.05	**1.13**	0.0133	0.0066	0.0083	0.0047	0.031	0.0050	0.015	0.0054

Number	Be	Bi	Ce	In	La	Sb	Si	Ti	Tl
Zamak 2	.	.	.	.	.	.	.	.	.
43X Z4	.	0.012	.	.	.	0.0043	(0.0065)	0.0017	.
43X Z7	0.0194	(0.0009)	.	.	.	0.0016	.	0.067	.
43X Z6	.	0.0049	.	.	.	0.0045	0.012	0.0013	.
Zamak 5	.	.	.	.	.	.	.	.	.
Zamak 6	.	.	.	.	.	.	.	.	.
43X Z3	.	0.018	.	(0.0019)	.	(0.0030)	0.005	.	(0.0035)
BCR 360	.	.	.	0.00298	.	.	.	.	0.00259
BCR 359	.	.	.	0.00155	.	.	.	.	0.001334
SRM 630	.	.	.	.	.	.	0.022	.	.
43X Z2	.	0.0015	.	.	.	0.0112	0.0102	0.0010	.
BCR 361	.	.	.	(<0.00002)	.	.	.	.	0.00374
SRM 628	.	.	.	.	.	.	0.008	.	.
BCR 357	.	.	.	0.000330	.	.	.	.	0.000276
43X Z1	.	0.0031	.	.	.	0.0016	(0.0037)	0.0014	.
Zamak 3	.	.	.	.	.	.	.	.	.
Zamak 7	.	.	.	.	.	.	.	.	.
BCR 356	.	.	.	<0.00002	.	.	.	.	0.000079
42X Z6	.	.	(0.012)	0.00191	(0.011)	0.0169	(0.010)	.	0.0021
42X Z3	.	.	(0.0003)	.	(0.0003)	0.003	0.015	.	.
42X Z12	.	.	0.0116	0.0068	0.0084	0.0070	.	.	0.0076
SRM 627	.	.	.	.	.	.	0.021	.	.
42X Z5	.	.	0.0277	0.0037	0.0138	.	.	.	(0.0010)
BCR 355	.	.	.	0.00246	.	.	.	.	0.002325
42X Z4	.	.	0.020	0.0016	0.020	(0.0029)	.	.	(0.0025)
SRM 626	.	.	.	.	.	.	0.042	.	.
SRM 625	.	.	.	.	.	.	0.017	.	.
BCR 354	.	.	.	0.00098	.	.	.	.	0.001101
42X Z2	.	.	0.0072	.	0.0031	(0.0012)	0.011	.	.
BCR 353	.	.	.	0.000255	.	.	.	.	0.000395
BCR 352	.	.	.	0.000302	.	.	.	.	0.00032
42X Z1	.	.	0.0027	.	0.0026	(0.0009)	0.0046	.	.
BCR 351	.	.	.	<0.00002	.	.	.	.	0.000074
Zamak 8	.	.	.	.	.	.	**<0.03**	.	.
43X Z14	.	0.0096	.	.	.	0.0089	0.016	0.0014	.

CRM ZAMAK SET

SOLD IN SET/5 ONLY 30 mm x 35 mm x 45 mm

Number	Al	Cd	Cu	Mg	Pb	Sn
GBW 02705	4.72	0.00081	0.165	0.0224	0.0026	0.00058
GBW 02706	3.92	0.0014	0.256	0.159	0.0032	0.00104
GBW 02707	3.91	0.0031	0.412	0.075	0.0057	0.0021
GBW 02708	2.92	0.0072	0.773	0.0368	0.0120	0.0040
GBW 02709	2.64	0.0138	1.37	0.0085	0.0235	0.0077

CRM ZAMAK SET

SOLD IN SET/4 ONLY 40 mm Ø x 25 mm

Number	Al	Cd	Cu	Fe	Mg	Ni	Pb	Si	Sn
IMN ZG 1	3.07	0.00048	1.34	0.0083	0.074	0.0067	0.009	0.036	0.0068
IMN ZG 2	3.56	0.0049	0.72	.	0.048	0.0025	0.0065	0.024	0.0048
IMN ZG 3	4	0.0028	0.11	0.011	0.028	0.001	0.0033	0.01	0.00067
IMN ZG 4	4.64	0.011	(0.0089)	0.016	0.00055	0.00042	0.0013	(0.0047)	0.0021

ZINC BINARY AND TERNARY SAMPLES

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

#	Number	Al	Mg	Mn	Pb	Sb	Units
1	SRM 1742	0.7917	.	.	(0.0029)	.	50 mm Ø x 12 mm
1	SRM 1737	0.6302	.	.	0.0029	.	50 mm Ø x 12 mm
1	SRM 1741	0.5242	.	.	0.1571	.	50 mm Ø x 12 mm
1	SRM 1740	0.4177	.	.	0.0691	.	50 mm Ø x 12 mm
1	SRM 1736	0.3076	.	.	0.0029	.	50 mm Ø x 12 mm
1	SRM 1739	0.2049	.	.	0.0302	.	50 mm Ø x 12 mm
1	SRM 1738	0.1014	.	.	0.0101	.	50 mm Ø x 12 mm
2	41X ZMg1	.	1.13	.	.	.	40 mm Ø x 15 mm
2	41X ZMg3	.	2.80	.	.	.	40 mm Ø x 15 mm
1	41X ZMn1	.	.	1.07	.	.	50 mm Ø x 20 mm
2	41X ZSb1	.	.	.	.	1.03	40 mm Ø x 15 mm
2	41X ZSb4	.	.	.	.	3.78	40 mm Ø x 15 mm
2	41X ZSb8	.	.	.	.	7.68	40 mm Ø x 15 mm

RM ZINC - ALUMINUM - ANTIMONY ALLOYS

cast some Sb segregation in below series, typical analysis listed 40 mm Ø x 15 mm

Number	Al	Sb	Bi	Cd	Cu	Fe	Mg	Pb	Sn
44X Z5	20.4	5.2	0.004	0.001	0.001	0.010	<0.001	0.010	0.003
44X Z4	20.3	6.7	0.016	0.011	0.007	0.011	0.008	0.032	0.018
44X Z2	12.6	9.5	0.030	0.005	0.003	0.007	0.035	0.053	0.018

CRM ZINC ALLOY SETS

available in SETS ONLY, as grouped ZI: 40 mm Ø x 30 mm ZF, ZH: 40 mm Ø x 25 mm

Number	Al	Cd	Cu	Fe	Mg	Mn	Ni	Pb	Sb	Sn	Ti	Zn
IMN ZF 1	0.018	0.0041	0.013	0.020	.	.	.	0.0012	.	0.013	0.0014	Rem
IMN ZF 2	0.011	0.0055	0.46	0.011	.	.	.	0.0082	.	0.0077	0.11	Rem
IMN ZF 3	0.0033	.	0.098	0.0018	.	.	.	.	.	0.0022	0.021	Rem
IMN ZF 4	0.0058	0.00053	0.86	0.00045	.	.	.	0.0091	.	0.0017	0.20	Rem
IMN ZF 5	.	0.0088	0.011	0.0081	.	.	.	0.026	.	.	0.013	Rem
IMN ZH 1	1.05	0.00079	0.063	0.0038	0.0014	1.39	0.0064	0.0072	0.0012	0.0072	.	.
IMN ZH 2	0.74	0.006	0.15	0.00042	0.0094	0.95	0.05	0.051	0.011	0.05	.	.
IMN ZH 3	.	0.018	0.3	.	0.049	0.49	.	0.31	0.03	0.11	.	.
IMN ZH 4	0.037	0.3	0.41	.	.	0.049	0.93	0.63	0.048	0.14	.	.
IMN ZH 5	0.005	0.41	.	.	0.097	0.0047	1.37	0.91	.	.	.	.
IMN ZH 6	0.45	.	.	0.053	.	.	.	.	.	.	.	.
IMN ZI 1	0.00309	0.00137	0.182	0.00137	.	.	.	0.0006	.	0.0003	0.0508	Rem
IMN ZI 2	0.0151	0.00106	0.204	0.00139	.	.	.	0.00152	.	0.00081	0.206	Rem
IMN ZI 3	0.00859	0.00206	0.0337	0.0019	.	.	.	0.00113	.	0.00058	0.263	Rem
IMN ZI 4	0.00431	0.00143	0.11	0.00131	.	.	.	0.00328	.	0.00215	0.118	Rem
IMN ZI 5	0.0108	0.00049	0.288	0.00135	.	.	.	0.00135	.	.	0.0229	Rem
IMN ZI 6	0.00151	.	0.135	.	.	.	.	.	.	.	0.0834	Rem

CRM ZINC ALLOYS, chart 1 of 2

X: 50 mm Ø x 20 mm CAN: 50 mm Ø x 12 mm SRM: 44 mm x 44 mm x 19 mm

Number	Al	Bi	Cd	Cr	Cu	Fe	Mg	Mn	Ni	Pb	Sb	Si	Sn	Ti
43X Z23	30.9	.	0.0043	0.0144	3.15	0.16	0.0207	0.0132	0.0156	0.0045	.	0.061	0.0055	0.0030
CAN NZA-1	28.70	.	0.00098	.	1.51	0.046	0.020	.	.	0.0030	.	.	0.0069	.
43X Z22	27.4	.	0.0050	0.019	2.32	.	0.022	0.0096	0.027	0.0060	.	0.038	0.0061	0.0065
CAN NZA-4	26.65	.	0.0029	.	2.45	0.027	0.0106	.	.	0.0101	.	.	0.0087	.
CAN NZA-3	25.99	.	0.0064	.	2.00	0.066	0.0049	.	.	0.0045	.	.	0.0034	.
CAN NZA-2	23.81	.	0.0047	.	3.00	0.021	0.029	.	.	0.0076	.	.	0.0045	.
43X Z21	23.5	.	0.027	0.0087	1.81	.	0.047	0.0104	0.043	0.012	.	0.022	0.0140	0.013
43X GALF5	15.03	.	0.0080	.	0.0114	(0.072)	0.0016	.	.	0.0084	.	.	0.0081	.
CAN NZA-7	13.17	.	0.00020	.	0.212	(0.016)	0.052	.	.	0.0136	.	.	0.0116	.
43X Z11	11.61	0.0035	0.0224	0.0010	0.515	.	0.053	0.0089	0.0014	0.0305	0.0091	0.020	0.0206	0.013
CAN NZA-5	10.85	.	0.0095	.	1.04	(0.016)	0.021	.	.	0.0012	.	.	0.0017	.
43X GALF4	10.71	.	0.0108	.	2.470	0.074	0.0062	.	.	0.0122	.	.	0.0110	.
43X Z12	10.05	(0.003)	0.0115	0.0022	0.80	.	0.027	0.0061	0.004	0.0136	(0.004)	(0.006)	0.0089	0.0053
43X Z13	9.55	.	0.0100	.	0.981	.	0.0204	0.0070	0.0109	0.0125	0.009	(0.0048)	0.0111	.
43X GALF3	8.37	.	0.0018	.	0.507	0.018	0.0099	.	.	0.0032	.	.	0.0025	.
43X Z14	8.05	0.0096	0.0083	0.0047	1.13	0.031	0.0133	0.0050	0.0066	0.015	0.0089	0.016	0.0054	0.0014
CAN NZA-6	7.54	.	0.0147	.	3.17	(0.0105)	0.00037	.	.	0.0809	.	.	0.0051	.
43X Z15	7.36	(0.005)	0.0030	0.0024	1.54	.	0.0022	0.0020	0.0019	0.0060	(0.005)	(0.007)	0.004	0.002
42X Z8	7.03	.	0.0003	(0.0002)	0.0215	.	0.0033	0.0014	0.0019	0.0025	.	0.013	(0.0023)	(0.0001)
42X Z9	5.58	.	0.0054	.	0.0070	.	0.0464	0.0006	(0.0003)	0.0021	.	(0.004)	(0.00035)	0.020
43X GALF2	5.40	.	0.0043	.	0.0585	0.032	0.0504	.	.	0.0050	.	.	0.0040	.
SRM 629	5.15	.	0.0155	0.0008	1.50	0.017	0.094	0.0017	0.0075	0.0135	.	0.078	0.012	.
43X GALF1	4.68	.	0.0499	.	4.39	0.061	0.0999	.	.	0.0505	.	.	0.0514	.
42X Z1	4.61	.	0.0005	<0.0005	0.0019	.	0.0041	0.0007	0.0017	0.0022	(0.0009)	0.0046	0.0006	.
42X Z7	4.39	.	0.030	(0.0001)	0.0249	.	0.0095	0.0042	0.0067	0.0097	.	0.006	0.012	(0.0001)
43X SC4	4.35	.	0.0058	0.009	1.122	0.022	0.093	0.044	0.0249	0.0064	.	0.022	0.0056	.
42X Z5	4.25	.	0.00264	0.0012	0.085	(0.0095)	0.050	0.026	0.040	0.0065	0.0130	.	0.0021	.
43X Z10	3.99	.	0.0014	0.00027	2.97	0.007	0.0403	0.0050	0.0036	0.0046	.	0.009	0.0012	.
43X SC1	3.75	.	0.0011	0.0082	1.903	0.073	0.740	0.0201	0.0161	0.0150	.	0.022	0.0082	.
42X Z6	3.67	.	0.0039	0.0034	0.238	.	0.177	0.0157	0.00030	0.0093	0.0169	(0.010)	0.0057	.
42X Z4	3.52	.	0.0065	(0.00025)	0.0752	0.019	0.0663	0.0083	0.0170	0.0133	.	0.006	0.0052	.
43X SC2	3.41	.	0.0018	0.023	4.80	0.046	0.498	0.0183	0.0096	0.0097	.	0.0133	0.0031	.
42X Z11	3.19	.	0.0020	0.0016	0.093	(0.036)	0.0329	0.0196	0.0241	0.0058	0.0047	.	0.0017	.
43X Z9	3.17	0.0033	0.0034	0.0034	4.82	0.073	0.0472	0.0108	0.0027	0.0078	0.0033	.	0.0020	0.0012
43X SC3	3.14	.	0.0028	0.0108	3.03	0.018	0.257	0.0337	0.0261	0.0066	.	0.022	0.0078	.
43X Z5	3.05	.	0.0111	0.0010	6.05	.	0.041	0.0030	0.0021	0.0045	.	0.003	0.0032	0.0009
43X Z8	2.51	.	0.00090	0.00024	0.481	(0.0017)	0.00155	0.00021	0.00033	0.0027	.	.	(0.0005)	.
41X 0336 Zn2	1.55	0.0099	0.145	.	0.354	(0.01)	0.099	0.0212	0.0137	0.486	0.0007	.	0.038	.
41X 0336 Zn4	1.39	0.027	0.638	.	0.874	.	0.179	0.038	0.0074	2.87	0.048	.	2.38	.

Number Al Bi Cd Cr Cu Fe Mg Mn Ni Pb Sb Si Sn Ti

Number	Ag	As	Be	Ce	In	La	Tl	Zr
43X Z23	.	.	.	.	.	.	.	.
CAN NZA-1	.	.	.	.	.	.	.	.
43X Z22	.	.	.	.	.	.	.	.
CAN NZA-4	.	.	.	.	.	.	.	.
CAN NZA-3	.	.	.	.	.	.	.	.
CAN NZA-2	.	.	.	.	.	.	.	.
43X Z21	.	.	.	.	.	.	.	.
43X GALF5	.	.	.	0.0041	.	0.0019	.	.
CAN NZA-7	.	.	.	.	.	.	.	.
43X Z11	.	.	.	.	.	.	.	.
CAN NZA-5	.	.	.	.	.	.	.	.
43X GALF4	.	.	.	0.079	.	0.041	.	.
43X Z12	.	.	.	.	.	.	.	.
43X Z13	.	.	.	.	.	.	.	.
43X GALF3	.	.	.	0.0152	.	0.0076	.	.
43X Z14	.	.	.	.	.	.	.	.
CAN NZA-6	.	.	.	.	.	.	.	.
43X Z15	.	.	.	.	.	.	.	.
42X Z8	.	.	.	0.0081	.	0.0079	.	.
42X Z9	.	.	.	0.0047	.	0.0044	.	0.011
43X GALF2	.	.	.	0.0318	.	0.0158	.	.
SRM 629	.	.	.	.	.	.	.	.
42X Z1	.	.	.	0.0027	.	0.0026	.	.
42X Z7	.	.	.	0.053	.	0.047	.	.
43X GALF1	.	.	.	0.0569	.	0.0284	.	.
43X SC4	.	.	.	.	.	.	.	.
42X Z5	.	.	.	0.0183	0.0049	0.0137	0.0064	.
43X Z10	.	.	.	.	.	.	.	.
43X ZSC1	.	.	.	.	.	.	.	.
42X Z6	.	.	.	(0.012)	0.00191	(0.011)	0.0021	.
42X Z4	.	.	.	0.0361	0.0025	0.0183	.	.
43X SC2	.	.	.	.	.	.	.	.
42X Z11	.	.	.	0.0014	0.0037	(0.0009)	0.0047	.
43X Z9	.	.	0.0010	.	.	.	.	.
43X ZSC3	.	.	.	.	.	.	.	.
43X Z5	.	.	.	.	.	.	.	.
43X Z8	.	.	.	.	.	.	.	.
41X 0336 Zn2	0.0102	0.0009	.	.	.	.	0.0012	.
41X 0336 Zn4	0.0023	0.0005	.	.	0.0035	.	(0.004)	.

Number Ag As Be Ce In La Tl Zr

CRM ZINC ALLOYS, chart 2 of 2

41X CGL: 42 - 48 mm Ø x 20 mm other X: ~50 mm Ø x ~20 mm

Number	Al	Bi	Cd	Cr	Cu	Fe	Mg	Mn	Ni	Pb	Sb	Si	Sn	Ti
41X GLV4	0.514	0.0061	0.0006	0.0007	0.0321	0.0028	0.0034	0.0089	0.0441	0.0062	0.0287	.	0.0024	.
41X GLV6	0.474	0.0248	0.0053	0.0029	0.039	.	.	0.0013	0.0008	0.120	0.0112	.	0.0152	.
41X 4380 Zn4	0.446	0.0101	0.086	0.0029	0.0284	0.017	0.118	0.0092	0.0172	0.310	0.0156	.	0.0416	(0.0003)
41X GLV7	0.399	(0.0108)	0.00056	0.0010	0.023	.	.	0.0025	0.0060	0.082	0.0031	.	(0.0006)	.
41X 0336 Zn3	**0.336**	.	**0.341**	.	**0.353**	**0.0456**	**0.147**	**0.0106**	**0.0022**	**0.0282**	.	.	**0.127**	.
41X GLV3	0.334	0.0016	0.0188	0.00084	0.0260	0.0031	0.00145	0.0111	0.0300	0.0091	0.058	.	0.0060	.
41X 4380 Zn9	0.295	0.00046	0.0032	0.0015	0.0416	0.0113	0.0153	0.0018	0.0009	0.0139	0.0060	.	0.0008	.
41X CGL	0.28	.	(0.0015)	.	(0.0005)	.	.	.	.	0.046	.	.	(<0.001)	.
41X 4380 Zn7	0.277	.	0.0156	.	0.0133	0.0018	0.0029	0.0036	0.0120	1.18	0.086	.	0.0036	0.0065
41X GLV8	0.263	0.0005	0.0003	0.0012	0.0139	0.0062	0.0012	0.0012	0.0006	0.0037	0.0057	.	0.0005	.
41X 4380 Zn8	0.225	0.011	0.0079	0.0019	0.020	.	0.007	0.0015	0.024	0.73	0.016	(0.005)	0.011	0.012
41X GLV1	**0.202**	**0.0040**	**0.0101**	.	**0.0184**	**0.0041**	**0.0008**	.	**0.0068**	**0.0207**	**0.0011**	.	**0.0124**	.
41X 0336 Zn6	0.105	0.123	0.0140	.	0.0203	.	0.0008	0.0010	0.0018	1.82	0.234	.	0.0023	.
41X 2951 Zn3	0.078	.	0.0062	0.184	1.89	.	0.0164	0.0018	0.0010	0.0065	.	.	(0.006)	0.133
41X GLV2	0.070	0.017	0.0026	.	0.0053	.	.	.	0.0071	0.214	0.007	.	0.003	.
41X GLV2 A	0.068	0.017	0.0025	.	0.0052	0.048	.	.	0.0070	0.214	0.006	.	0.003	.
41X 4380 Zn1	0.055	0.0017	0.376	0.002	0.175	.	0.0011	0.0015	0.0029	0.068	0.002	0.006	0.049	(0.001)
41X ZNiBi	0.050	0.502	0.0020	.	0.0132	0.0133	.	.	2.02	0.0187	.	.	0.154	.
41X 0336 Zn5	0.035	(0.001)	0.056	.	0.023	.	<0.0005	(0.0001)	(0.0005)	0.91	0.008	.	0.21	.
41X 2951 Zn2	0.032	.	0.0037	0.142	1.37	.	0.0123	0.0011	0.0027	0.0040	.	.	(0.0015)	0.209
41X 2951 Zn1	0.029	.	0.0005	0.083	0.79	.	0.0029	0.0013	0.0038	0.0042	.	.	(0.0007)	0.278
41X 4380 Zn5	0.0215	0.0308	0.0571	0.0075	0.071	.	0.00165	0.035	0.00147	0.140	0.0061	.	0.0101	0.339
41X 4380 Zn3	0.0203	0.0103	0.0950	0.0029	0.073	.	0.0220	0.0180	0.0120	0.180	0.0046	.	0.080	0.125
41X 0336 Zn1	**0.0177**	.	**0.0067**	.	**0.0088**	**0.0106**	**0.0062**	**0.0102**	**0.0009**	**1.007**	.	.	**0.0051**	.
41X 4380 Zn2	0.0153	0.0076	0.284	0.0027	0.0288	.	0.0243	0.0087	0.0023	0.268	0.0093	.	0.0021	0.0251
41X GLV5	0.014	0.0109	0.0138	.	0.0116	0.076	.	.	0.0030	0.0187	0.162	.	0.020	.
41X ZNi2	0.0135	0.0050	0.0010	.	0.0056	0.0061	.	.	1.97	0.0172	.	.	0.141	.
41X 4380 Zn6	0.0051	0.00109	0.0423	0.0022	0.022	.	0.0043	0.024	0.00058	0.411	0.0359	.	0.110	0.062
44X ZnCd30	.	0.051	31.0	.	0.046	0.0015	.	.	0.0014	0.089	1.03	.	0.053	.

Number Al Bi Cd Cr Cu Fe Mg Mn Ni Pb Sb Si Sn Ti

Number	Ag	As	Co	In	Tl	
41X GLV4	.	(0.0003)	0.0037	.	.	
41X GLV6	.	0.0014	0.0047	.	.	
41X 4380 Zn4	.	.	0.0018	.	.	
41X GLV7	.	0.0016	.	.	.	
41X 0336 Zn3	.	**0.0003**	.	.	.	
41X GLV3	.	(0.0007)	0.00150	.	.	
41X 4380 Zn9	.	.	.	.	.	
41X CGL	.	.	.	(<0.001)	(<0.001)	
41X 4380 Zn7	.	.	.	.	.	
41X GLV8	.	.	.	.	.	
41X 4380 Zn8	.	.	.	.	.	
41X GLV1	.	**(0.0008)**	**0.00016**	.	.	
41X 0336 Zn6	0.0055	0.0020	.	0.0123	0.0132	
41X 2951 Zn3	.	.	.	.	.	
41X GLV2	.	<0.001	.	.	.	
41X GLV2 A	.	<0.001	.	.	.	last of stock
41X 4380 Zn1	.	.	.	.	.	
41X ZNiBi	.	.	.	.	.	
41X 0336 Zn5	.	.	.	.	.	
41X 2951 Zn2	.	.	.	.	.	
41X 2951 Zn1	.	.	.	.	.	
41X 4380 Zn5	.	.	.	.	.	
41X 4380 Zn3	.	.	.	.	.	
41X 0336 Zn1	.	**0.0008**	.	.	.	
41X 4380 Zn2	.	.	.	.	.	
41X GLV5	.	0.0041	.	.	.	
41X ZNi2	.	.	.	.	.	
41X 4380 Zn6	.	.	.	<0.00005	0.0003	
44X ZnCd30	0.046	.	.	.	.	

Number Ag As Co In Tl

These globally recognized standards have been used in national mints and precious metal mines across the world. They originate from the Rand Refinery Ltd. in South Africa.

All of these reference materials will be accompanied by a Certificate of Analysis indicating the values of all elements. The XRF standards are mounted in bakelite TSP with a 31 mm Diameter. Other diameters and sizes are available on request.

Please note that with precious metals, market fluctuations will affect pricing. Quoted prices will be extended for a 30-day period. Prepayment is necessary. Delivery in 8 - 12 weeks.

HIGH PURITY GOLD - three forms - certified Au, informational impurities

Number	Au	Impurities reported as found present							Available forms, which must be specified
RAN AuHP1	99.99(5)	Al	Ag	As	Bi	Cd	Cr	Cu	80 g optical emission disc, custom sizes available
RAN AuHP2	99.99	Fe	Mg	Mn	Ni	Pb	Pd	Pt	18 mm x 2 mm XRF disc
RAN AuHP3	99.9(7)	Rh	Sb	Se	Ti	Te	Zn		15 g or 25 g of small balls, each 200 mg +/- 5 mg

REFINED GOLD GLOBULES

Number	Al	Ag	As	Bi	Cd	Co	Cr	Cu	Fe	Mg	Mn	Ni	Pd	Pb	Pt	Rh	Sb	Se	Te	Ti	Zn
RAN AuP1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
RAN AuP2	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
RAN AuP3	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
RAN AuP4	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
RAN AuP5	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
RAN AuP6	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150

These standards are units of 75 globules at 200 mg +/- 5 mg each. The concentration of each impurity can be custom added and certified. Otherwise the certified impurities fall within 20% of the following values.

JEWELRY - XRF DISCS

Number	Au %	Ag %	Cu
RAN AuA1	98	2	.
RAN AuA2	96	2	2
RAN AuA3	91	.	8.5
RAN AuA4	88	8	4
RAN AuA5	75	18	7
RAN AuA6	50	20	30
RAN AuA7	37	10	53

Gold, Silver, and Copper will be certified within 1% of the stated values. These standards are available individually or as a set of 7 standards. 11 possible trace elements are then reported as informational, custom added as impurities to the alloys. Certified values will be given for all elements including trace elements. The size is 18 mm Ø x 2 mm H discs mounted on a 31 mm Ø bakelite TSP.

The following elements may be customized in mg/kg

Bi Cd Fe Mn Pd Pt Pb Sb Se Te Zn

BULLION - XRF discs

Optical emission discs are 80 g custom sizes, XRF discs are 21.7 mm Ø x 2 mm H discs mounted on a 31 mm Ø bakelite TSP. RAN REFBul1 is produced from high purity gold, silver, and copper, and are available as 3 different standards:

Certified values for Au, Ag, and Cu
Certified values for Au, Ag, and Cu with 6 trace elements (*) including Pt and Pd
Certified values for Au, Ag, and Cu with 19 trace elements

Note that the Au and Ag values for RAN Bul1 are mass percent, while Cu and Pd are listed as mg/kg.

Au %	Ag %	Cu	Pd*
99.63	0.329	238	14

The 19 trace elements are all less than 10 mg/kg.

Pt* Sn Pb Sb Bi* Zn Rh* Ni* Cr Mn Fe* Ti Se Co Cd Mg Zn As Al

TERNARY ALLOYS - XRF dics

Number	Au %	Ag %	Cu
RAN TA1	98.0	1.5	0.5
RAN TA2	96.0	3.0	1.0
RAN TA3	95.0	2.5	2.5
RAN TA4	93.0	4.5	2.5
RAN TA5	90.0	4.0	6.0
RAN TA6	83.3	4.0	12.7
RAN TA7	81.7	7.2	11.1
RAN TA8	80.0	12.5	7.5
RAN TA9	58.3	8.0	33.7
RAN TA10	58.3	20.0	21.7
RAN TA11	58.3	30.0	11.7
RAN TA12	50.0	20.0	30.0
RAN TA13	37.5	2.0	60.5
RAN TA14	37.5	10.0	52.5
RAN TA15/01	37.5	16.0	46.5
Number	Au %	Ag %	Cu

These standards are available as a set of 15 standards. The concentrations of the 3 major elements and the 10 trace elements will be certified over the ranges specified. The concentrations of major elements Au, Ag, and Cu in each alloy will fall within 1% of the values specified. Values listed are the mean of the range. Concentrations of custom added trace elements will be included and certified over the range of 1 - 150 mg/kg. Standards can be produced to order on receipt of detailed requirements listing concentration ranges of the trace elements.

The size is 18 mm Ø x 2 mm H discs mounted on a 31 mm Ø bakelite TSP.

The following elements may be customized in mg/kg: Bi Fe Mn Ni Pb Pd Pt Sb Sn Zn

REFINED SILVER GLOBULES

Number	Al	As	Au	Bi	Cd	Co	Cr	Cu	Fe	In	Mn	Ni	Pb	Pd	Pt	Rh	Sb	Se	Sn	Te	Ti	Zn
RAN AgP1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
RAN AgP2	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
RAN AgP3	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
RAN AgP4	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
RAN AgP5	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
RAN AgP6	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
RAN AgP6	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200

These standards are units of 75 globules at 200 mg +/- 5 mg each. The concentration of each impurity can be custom added and certified. Otherwise the certified impurities fall within 20% of the following values.

SILVER ALLOYS - XRF only

Number	Ag %	Cu
RAN AgA1	97	3
RAN AgA2	94	6
RAN AgA3	91.5	8.5
RAN AgA4	80	20
RAN AgA5	60	40

These standards are available individually or as a set of 5 standards. These contain silver and copper in a variety of ranges with certified values for nine custom trace elements. The size is 18 mm Ø x 2 mm H discs mounted on a 31 mm Ø bakelite TSP.

The following elements may be customized in mg/kg

Au Pt Pd As Bi Cd Sb Ni Fe

HALLMARK - XRF only

Entirely customized, these are made to the customer specifications. Certified values will be given for Au, Ag, and Cu. Discs are 22 mm Ø x 2 mm H mounted on a 31 mm Ø bakelite TSP. Any desired mix of Au, Ag, or Cu may be supplied with a certificate of analysis. Chosen compositions do not need to use all three of the possible elements.