

## INDEX

BISMUTH 1

HARD LEAD 4

SILVER 12, 13

SILVER ALLOYS 13

CADMIUM 2

JEWELRY 12

CHROMIUM 2

TIN 5, 14, 15, 16

COBALT 2

TITANIUM 16, 18

LEAD 3, 4, 5, 6

FUSIBLE ALLOY 1

XRF 3, 4, 16, 21

MAGNESIUM 7, 8, 9, 10, 11

GOLD 12, 13

ZAMAK 20

RoHS MONITOR 19

ZINC 19, 20, 21, 22, 23

ZIRCONIUM 23

**CRM BISMUTH ALLOY**

Number	Bi	Ag	As	Au	Cd	Cu	In	Ni	Pb	Sb	Sn	Unit
IMN LD 33	Rem	0.00552	0.0234	0.0226	0.00145	0.0264	0.00633	0.00167	0.0461	0.00708	42.81	40mm Ø x 25 mm

**RM BISMUTH BASE and FUSIBLE SOLDER ALLOYS**

95X: ~40 mm Ø x ~15 mm NF: 37 mm Ø x 12 mm

Number	Bi	Cd	In	Pb	Sn	Ag	Al	As	Au	Co	Cu	Fe	Hg	Ni	Sb	Zn	Other
95X BIS40P1A	57.4	0.0050	0.0164	0.043	42.3	0.035	.	0.0101	.	.	0.0670	(0.001)	.	.	0.092	0.011	
95X 174A	57.1	0.0089	26.08	0.082	16.70	0.0075	.	.	.	.	0.0030	.	.	.	0.086	0.037	Melt 'C: 79
95X 255A	55.7	0.0065	0.010	43.7	0.24	0.0019	.	.	.	.	0.045	.	.	.	0.32	0.035	Melt 'C: 124
95X BIS40P2A	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)
NF 64-7	Rem	.	0.003	0.076	45.0	1.25	.	0.006	0.011	0.026	0.004	.	.	0.005	0.26	.	
NF 64-6	Rem	.	0.007	0.26	43.1	0.70	.	0.018	0.035	0.039	0.11	.	.	0.042	0.11	.	
NF 64-5	Rem	.	0.098	0.006	42.6	0.99	.	.	.	.	0.076	.	.	.	0.078	.	
NF 64-4	Rem	.	0.075	0.052	42.0	0.40	.	0.010	<0.001	<0.001	0.006	.	.	0.025	0.053	.	
NF 64-3	Rem	.	0.049	0.025	41.4	0.20	.	0.005	.	.	0.049	.	.	0.072	0.026	.	
NF 64-1	Rem	.	0.010	0.098	41.0	0.006	.	0.0006	.	.	0.026	.	.	0.093	0.001	.	
NF 64-2	Rem	.	0.024	0.012	40.5	0.052	.	0.001	.	.	0.15	.	.	0.011	0.013	.	
95X 158	50.2	9.6	0.006	27.0	13.5	0.002	.	.	.	.	0.048	.	.	.	0.057	0.044	Melt 'C: 70
95X BIS50P1A	49.8	0.022	.	.	50.0	.	.	.	.	.	.	0.051	.	0.025	.	0.006	
95X BIS50P3A	49.8	0.015	.	.	48.6	1.50	.	0.073	0.0025	.	.	0.003	.	.	.	0.002	
95X BIS50P2A	49.6	.	.	.	50.3	0.090	0.005	0.002	0.015	.	.	0.007	.	.	.	.	
95X 136A	48.8	0.0092	21.49	18.0	12.05	0.0056	.	.	.	.	0.0028	.	.	.	0.022	0.031	Melt 'C: 58
95X 117A	45.3	4.95	18.72	23.1	8.02	0.0043	.	.	.	.	0.010	.	.	.	0.010	0.0056	Melt 'C: 47
95X BIS70P1A	29.6	.	0.040	.	69.1	1.10	<0.001	0.025	0.0004	.	.	0.010	.	.	.	.	
95X BIS70P2A	32.8	.	0.049	.	65.0	2.01	<0.001	.	.	.	.	.	.	0.029	.	0.001	
95X PBS40P1A	13.8	0.0043	0.005	(43.6)	42.6	0.011	(0.0006)	0.005	.	.	0.025	(0.0006)	.	.	0.016	0.0010	

**CRM BISMUTH ALLOY SET**

available in set/6 only

40mm Ø x 25 mm

Number	Ag	Al	As	Au	Bi	Cd	Cu	Fe	In	Ni	Pb	Sb	Sn	Zn
IMN LD 1	0.00083	(0.0005)	0.00063	0.00661	Rem	0.0044	0.00277	0.00523	0.00144	0.00152	0.0113	0.00220	43.65	0.00019
IMN LD 2	0.121	.	0.00704	0.0166	Rem	0.00154	0.0333	0.00624	0.120	0.0157	0.0150	0.123	43.39	0.00063
IMN LD 3	0.00587	.	0.0210	0.0272	Rem	0.00114	0.0212	0.00664	0.00554	0.00624	0.0453	0.00738	41.76	0.00143
IMN LD 4	0.00560	(0.0018)	0.0202	0.0406	Rem	0.00235	0.0440	0.0262	0.00983	0.00140	0.0711	0.0111	43.16	0.00067
IMN LD 5	0.0136	(0.0015)	0.0275	0.0510	Rem	0.00232	0.0535	0.0318	0.0151	0.00232	0.0821	0.0170	43.07	0.00055
IMN LD 6	0.0539	(0.0004)	0.0169	.	Rem	0.00313	.	.	0.0736	.	.	0.0757	40.81	0.00086

**RM CADMIUM ALLOY**

Number	Cd	Sn	Units
95X SC34A	(65.99)	34.05	40 mm Ø x 15 mm
95X SC36A	(63.98)	36.09	40 mm Ø x 15 mm

**CRM CADMIUM SETS**

AVAILABLE IN SETS ONLY, AS GROUPED

Number	As	Cu	Ni	Pb	Sb	Sn	Tl	Set Size
KZ 030101-03 - 1	.	0.0023	0.0010	0.0060	.	.	0.0011	40 mm Ø x 30 mm
KZ 030101-03 - 2	.	0.0039	0.0018	0.011	.	.	0.0021	
KZ 030101-03 - 3	.	0.0068	0.00044	0.022	.	.	0.0047	
KZ 030101-03 - 4	.	0.013	0.0043	0.047	.	.	0.0091	
KZ 030101-03 - 5	.	0.024	0.011	0.12	.	.	0.023	
IMN K1	(0.00030)	.	0.0086	.	0.0064	0.0061	.	40 mm Ø x 25 mm
IMN K2	0.0012	.	0.018	.	0.0038	0.0032	.	
IMN K3	0.0010	.	0.063	.	0.0010	0.00065	.	
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	Cr	C	Co	Cu	Fe	Mn	Mo	N	Nb	Ni	P	S	Si	W
219X 20500C	51.0	0.0212	0.0110	0.0101	1.515	0.299	0.0103	0.199	0.0117	45.46	0.0048	0.0137	1.288	0.0086

**COBALT BASE ALLOYS**

# = class, where 1 = CRM and 2 = rm analysis listed in mass % \* Provisional Analysis

#	Number	Cr	Fe	Mn	Mo	Nb	Ni	W	Al	C	Cu	P	S	Si	Ti	Co
1	112X 14943H	31.00	0.763	1.008	7.96	0.099	0.151	0.051	(0.13)	0.190	0.203	0.0043	0.0197	0.201	0.005	.
1	IARM Co6B-18	30.7	2.68	1.48	0.020	(0.014)	2.59	3.92	(0.07)	1.02	(0.015)	.	(<0.0010)	0.61	(0.007)	57.0
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	BS 173	27.5	0.19	0.76	5.62	(0.002)	0.14	.	(0.04)	0.046	(0.008)	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
1	IMZ 188	26.44	1.14	0.68	0.42	0.045	10.76	7.46	(0.005)	0.526	0.025	0.011	(0.0002)	0.69	(0.007)	51.64
1	119X COB1H	24.62	15.15	0.514	0.413	0.405	22.14	11.99	0.055	0.0520	0.0607	0.0192	0.0099	0.493	.	.
1	IMZ 186	23.14	0.10	.	.	.	10.22	7.17	0.28	0.59	.	.	.	0.19	Rem	.
1	BS 172B *	22.5	2.46	0.97	0.31	0.04	22.5	15.32	0.23	0.056	0.023	0.01	<0.005	0.33	0.085	[35.1]
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	.	.
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	.	.
1	IARM CoElgiloy-18	20.4	12.6	2.36	8.6	(0.006)	15.9	(0.008)	(0.011)	0.008	(0.005)	0.0019	(0.0018)	0.05	(0.004)	40.4
1	BS 171C *	20.4	1.1	1.5	0.13	<0.05	10.4	15.3	0.04	0.12	0.03	0.003	0.0007	0.05	0.073	[50.5]
1	BS 171D *	20.3	1.1	1.5	0.12	<0.05	10.3	15.2	0.05	0.12	0.03	0.003	0.0009	0.05	0.052	[50.8]
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
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 14943H	0.0045	.	.	0.0284	.	.	.	(0.014)	0.009	.	.	.	~40 mm Ø x ~15 mm		
	IARM Co6B-18	.	.	.	0.017	.	.	.	.	0.011	.	.	.	31 mm Ø x 2 or 18 mm		
	ECRM 378-1D	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm		
	BS 173	(0.001)	.	.	0.190	(0.002)	.	.	.	(0.01)	.	.	.	35 mm Ø x ~7 or 19+ mm		
	CT ISO074A	(<0.0010)	.	.	0.17	.	.	.	.	0.005	.	.	.	30-35 mm Ø x ~16 mm		
	IMZ 188	0.0009	.	.	.	.	.	.	(0.011)	(0.011)	(0.0004)	.	.	1/4 of 75 mm Ø cylinder x 20 mm		
	119X COB1H	.	.	.	0.093	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm		
	IMZ 186	(0.007)	.	.	.	.	.	.	3.78	.	0.40	.	.	1/4 of 78 mm Ø cylinder x 30 mm		
	BS 172B *	0.005	0.06	<0.05	<0.5	.	.	.	<0.5	0.008	<0.5	.	.	38 mm Ø x 19 mm		
	BS 172A	(0.003)	0.045	(0.001)	.	.	.	.	(0.024)	0.007	last	.	.	38-35 mm Ø x ~10, ~14 or 19 mm		
	BS 171B	.	.	.	.	.	.	.	.	(0.02)	.	.	.	38 mm Ø x ~7 or 19+ mm		
	IARM CoElgiloy-18	(0.002)	.	.	0.0034	0.009	.	.	(0.01)	(0.009)	.	.	.	31 mm Ø x 2 or 18 mm		
	BS 171C *	<0.05	0.05	<0.005	<0.05	<0.005	.	.	<0.5	0.013	.	.	.	38 mm Ø x 19 mm		
	BS 171D *	<0.05	0.03	<0.005	<0.05	<0.005	.	.	<0.05	0.013	.	.	.	38 mm Ø x 19 mm		
	SRM 1242	(<0.0001)	.	(0.001)	0.026	.	(0.00001)	(0.001)	(0.01)	0.005	(0.001)	.	.	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 mm		

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

## 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 PR1K	0.1029	0.0338	0.0508	0.074	0.0465	(0.0004)	0.0100	0.0008	0.016	0.0058	(0.002)
1	83X PR4H	0.0114	0.0003	0.0150	0.0081	0.0454	0.0029	0.0050	(0.004)	.	0.0229	.
1	SRM C2417	0.010	0.011	0.010	(<0.0002)	0.010	(<0.0005)	0.010	.	(<0.010)	(<0.0005)	(<0.0005)
1	83X PR11A	0.0030	0.0095	0.0117	0.0008	0.0551	0.0011	0.497	(0.0001)	0.119	.	.
1	83X PR12A	0.0030	(0.0003)	0.0119	0.0011	0.0353	0.0009	0.0011	(0.0002)	0.0005	.	.
2	83X PR9-1A	0.003	.	.	0.0004	.	.	.	.	0.054	.	0.0007
1	83X PR3G	0.0029	0.0011	0.144	0.0462	0.0694	0.0116	0.0888	0.0166	0.0417	0.0039	(0.0007)
1	83X CU06A	0.0019	(0.0001)	0.0134	(0.00006)	0.0554	0.0003	(0.0008)	(0.0005)	(0.0004)	(0.0002)	(0.0003)
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	83X PR5G/2	0.0110	0.0003	0.0086	0.00029	0.00058	(0.00017)	0.0006	0.0004	(0.0007)	0.0003	(0.00016)
1	SRM C2418	0.0007	(<0.0001)	(<0.0005)	0.0003	(<0.0001)	(<0.0005)	(<0.0001)	.	(<0.0005)	(<0.0005)	(<0.0005)
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
1	ERM-EB107	.	.	.	0.00261	.	.	.	.	.	.	.
1	ERM-EB108	.	.	.	0.00260	.	.	.	.	.	.	.

Number	Al	Au	Ca	Fe	Hg	In	Mn	Na	Pt	S	Ti	Tl	Units
83X PR1K	(0.0003)	0.0019	.	.	.	0.0080	.	.	.	.	.	.	~40 mm Ø x ~15 mm
83X PR4H	.	0.0021	.	.	0.019	.	.	.	.	.	.	0.0021	~40 mm Ø x ~15 mm
SRM C2417	(<0.0001)	.	(<0.0001)	(<0.0003)	.	.	(<0.0003)	.	.	.	.	.	50 mm Ø x 16 mm
83X PR11A	.	.	.	(0.0003)	.	.	.	.	.	0.009	.	0.0042	~40 mm Ø x ~15 mm
83X PR12A	.	.	.	(0.0003)	.	.	.	.	.	(0.0002)	.	0.0051	~40 mm Ø x ~15 mm
83X PR9-1A	0.0001	Ba:0.033	0.096	.	Li:0.004	.	Mg:0.006	0.015	.	.	.	.	~40 mm Ø x ~15 mm
83X PR3G	.	0.0036	.	.	0.0008	0.0093	.	(0.0038)	.	.	.	0.0033	~40 mm Ø x ~15 mm
83X CU06A	.	.	.	.	.	.	.	.	.	0.0011	.	.	~40 mm Ø x ~15 mm
BCR 287A	.	.	.	.	.	.	.	.	.	.	.	0.000073	60 mm x 60 mm x 12 mm
83X PR5G/2	.	.	.	.	(0.0001)	(0.0001)	.	.	.	.	.	(0.0001)	~40 mm Ø x ~15 mm
SRM C2418	(<0.0001)	.	(<0.0005)	(<0.0005)	.	.	(<0.0005)	.	.	.	.	.	50 mm Ø x 16 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
ERM-EB107	.	.	.	.	0.00113	.	.	.	.	.	.	.	40 mm Ø x 40 mm
ERM-EB108	.	.	.	.	0.00083	.	.	.	.	.	.	.	40 mm Ø x 40 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

cast typical analysis

40 mm Ø x 15 mm

Class	Number	Sn	As	Pb	Sb	Units	Class	Number	Sb	Ag	As	Bi	Mg
CRM	91X S63P	63.30	.	SOLD OUT	.	40 mm Ø x 15 mm	CRM	81X PA12.5D	12.72	.	.	.	.
RM	91X S50PE	50.0	.	Rem	.	40 mm Ø x 15 mm	CRM	81X PA10.0C	9.60	.	.	.	.
RM	91X S40PD	40.0	.	Rem	.	40 mm Ø x 15 mm	CRM	81X PA7.0D	7.02	.	SOLD OUT	.	.
RM	91X S30P	30.0	.	SOLD OUT	.	40 mm Ø x 15 mm	CRM	81X PA3.5E	3.49	.	.	.	.
RM	NF 23	30.0	.	SOLD OUT	.	37 mm Ø x 12 mm	CRM	81X PA2.0D	1.996	.	SOLD OUT	.	.
RM	NF 22	25.0	.	Rem	.	37 mm Ø x 12 mm	CRM	81X PA1.0C	0.989	.	.	.	.
RM	NF 20	15.2	.	Rem	.	37 mm Ø x 12 mm	CRM	81X PA0.5C	0.481	.	.	.	.
RM	NF 19	12.0	.	Rem	.	37 mm Ø x 12 mm	RM	81X PAs1A	(0.02)	.	1.25	(0.03)	.
CRM	91X S10PD	10.07	.	Rem	.	40 mm Ø x 15 mm	RM	81X PMg1A	.	.	.	.	1.15
RM	NF 18	9.80	.	Rem	.	37 mm Ø x 12 mm	RM	81X PMg2A	.	.	.	.	0.173
RM	NF 17	6.80	.	Rem	.	37 mm Ø x 12 mm	RM	81X PMg3A	.	.	.	.	0.023
RM	NF 16	3.00	.	Rem	.	37 mm Ø x 12 mm	RM	82X PAG0.9A	.	0.903	.	.	.
RM	NF 35	0.97	0.94	Rem	14.0	37 mm Ø x 12 mm	RM	82X PAG0.7A	.	0.733	.	.	.





## LEAD ALLOYS CONTINUED FROM THE PREVIOUS PAGE

\* Provisional Analysis

Number	Al	Au	Hg	In	Mg	Mn	Na	Pd	S	Se	Tl	Units
91X S63PR3G	.	0.169	(0.038)	0.0097	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
91X S63PJ	(0.0003)	(0.0005)	.	0.0064	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
91X S63PR2K	0.0005	0.082	.	0.0157	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
91X S63Bi1A	(0.0015)	0.074	.	0.0067	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
91X S62AG2A	(0.0011)	0.0020	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
91X S63PR1G	.	0.0348	(0.015)	0.0308	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
91X S63PR0B	.	0.0148	0.004	0.0048	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
91X S40PR2D	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
SRM 1131	.	.	.	.	.	.	.	.	.	.	.	Disc 32 mm Ø x 19 mm
91X S40PR1B	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm last
93X S30APR3C	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
91X S30PR3C	.	0.0063	.	0.0085	.	.	.	.	.	.	.	Disc 40 mm Ø x ~12 mm
93X S30APR2C	.	.	.	0.0199	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
91X S30PR2C	<0.0005	0.0017	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
93X S30APR1C	.	.	.	0.0094	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
86X PSS4C	.	.	.	0.0194	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
86X PSS4B	.	.	.	0.0174	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
85X SBCA	.	0.0079	.	0.209	.	.	.	.	(0.0008)	(0.0029)	0.0196	Disc 40 mm Ø x 15 mm
86X PSS3B	.	.	.	0.0111	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
91X S10PR1C	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
86X PSS2B	.	.	.	0.0059	.	.	.	0.0049	.	.	.	Disc 40 mm Ø x 15 mm
SRM 1132	.	.	.	.	.	.	.	.	.	.	.	Disc 32 mm Ø x 19 mm
86X PSS1B	.	.	.	0.0074	.	.	.	0.0023	.	.	.	Disc 40 mm Ø x 15 mm
84X BA9C	0.0207	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
85X SSCHA	.	.	.	.	.	.	.	.	0.0035	(0.015)	last	Disc 40 mm Ø x ~11-13 mm
85X Psn2C	.	.	.	Co:0.0004	.	.	.	.	(0.0009)	0.0042	.	Disc ~40 mm Ø x ~15 mm
BAM EBI06	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm
84X BA13B	0.0363	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
84X BA12C	0.0158	.	.	.	0.00074	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
BAM EBI05	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm
84X BA11B	0.0207	.	.	.	.	.	.	.	.	.	.	Disc ~38 mm Ø x ~15 mm
BAM EBI04	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 40 mm
85X ANTHF	.	.	.	Co:0.0006	.	.	.	.	0.0026	0.014	.	Disc ~40 mm Ø x ~15 mm
BAM EBI02a	0.0124	.	.	(<0.0002)	(<0.0001)	.	(0.0004)	.	(<0.0003)	.	0.00302	Disc 40 mm Ø x 40 mm
84X BA14A	0.0188	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
84X BA15A	0.0161	.	.	.	.	.	.	.	.	.	.	Disc ~38 mm Ø x ~15 mm
84X BA1K	0.0336	.	.	.	.	.	.	.	.	.	.	Disc ~39 mm Ø x ~15 mm
85X HRHH	.	.	.	.	.	.	.	.	(0.0022)	0.0375	.	Disc 40 mm Ø x 15 mm
83X PR8D	.	0.0106	0.086	0.293	.	.	.	.	.	(0.0003)	.	Disc ~40 mm Ø x ~15 mm
84X BA7B	0.0085	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
84X BA2D	0.0183	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
85X MS2XA	.	.	.	.	.	.	.	.	(0.0002)	0.0334	.	Disc ~38 mm Ø x ~15 mm
84X BA20B	0.065	.	.	.	.	.	.	.	.	.	.	Disc ~38 mm Ø x ~15 mm
84X BA8D	0.0359	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
84X BA3D	0.0043	.	.	.	0.00038	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
Number	Al	Au	Hg	In	Mg	Mn	Na	Pd	S	Se	Tl	Units
SRM C2415a	Pb:(96)	.	.	.	.	.	.	.	(0.0061)	0.01005	.	Disc 40 mm Ø x 18 mm
BAM EBI01a	0.0227	.	.	.	(0.0009)	.	(0.0004)	.	(<0.0003)	.	0.00102	Disc 40 mm Ø x 40 mm
85X Psb5E	.	.	.	.	.	.	.	.	0.018	0.014	.	Disc ~38 mm Ø x ~15 mm
85X Psb12B	.	.	.	.	.	.	.	.	<0.001	0.0004	.	Disc 40 mm Ø x 15 mm
L21.02	.	.	.	.	.	.	.	.	.	.	.	Block 50 mm x 50 mm x 20 mm
82X PAG3.5RD	0.0015	.	.	0.037	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
85X S744A	.	.	.	.	.	.	.	.	0.0028	0.0253	.	Disc ~40 mm Ø x ~15 mm
84X BA23B	0.0569	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
85X 0494 Pb3D	.	.	.	.	.	.	.	.	0.0185	0.049	.	Disc ~40 mm Ø x ~15 mm
85X Psb5F	.	.	.	.	.	.	.	.	0.0056	0.0077	.	Disc ~40 mm Ø x ~15 mm
BAM EBI03	.	.	.	.	.	.	.	.	.	0.0180	0.00152	Disc 40 mm Ø x 30 mm
84X BA21B	0.0125	.	.	.	.	.	.	.	.	.	.	Disc ~39 mm Ø x ~15 mm
83X PR9A	0.0138	0.200	.	Li:0.066	0.054	.	0.077	.	.	.	.	Disc ~40 mm Ø x ~15 mm last
85X Psb3K *	.	.	.	.	.	.	.	.	0.010	0.038	.	Disc ~40 mm Ø x ~15 mm
84X BA22B	0.074	.	.	.	.	.	.	.	.	.	.	Disc ~38 mm Ø x ~15 mm
85X 0494 Pb2C	.	.	.	.	.	.	.	.	0.0052	0.0272	.	Disc ~40 mm Ø x ~15 mm
85X CADHC	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
83X PR2G	.	0.0005	0.003	0.0010	.	.	0.0013	.	(0.0006)	0.0005	(0.0017)	Disc ~40 mm Ø x ~15 mm
85X Psb10B	.	.	.	.	.	.	.	.	<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 PAG2.5RD	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
85X M2A	.	.	.	.	.	.	.	.	(0.0008)	0.0247	.	Disc ~38 mm Ø x ~15 mm
85X 2.5LAA	.	.	.	.	.	.	.	.	.	0.0006	.	Disc ~40 mm Ø x ~15 mm
85X Psb6A	.	.	.	.	.	.	.	.	.	0.0018	.	Disc ~40 mm Ø x ~15 mm
85X 0494 Pb1A	.	.	.	.	.	.	.	.	.	0.004	.	Disc 40 mm Ø x 15 mm
85X SB28A	.	.	.	.	.	.	.	.	0.0010	0.0223	.	Disc ~38 mm Ø x ~15 mm
84X BA4C	0.0015	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x ~15 mm last
85X N35A	.	.	.	.	.	.	.	.	0.007	0.0004	.	Disc ~38 mm Ø x ~15 mm
85X Psb8B	.	.	.	.	.	.	.	.	0.005	0.0022	.	Disc 40 mm Ø x 15 mm
82X PAG1.5RE	.	.	.	.	.	.	.	.	.	.	.	Disc 40 mm Ø x 15 mm
85X A16A	.	.	.	.	.	.	.	.	(0.0003)	0.0218	.	Disc ~38 mm Ø x ~15 mm
85X SM31A	.	.	.	.	.	.	.	.	0.0003	0.0183	.	Disc ~38 mm Ø x ~15 mm
85X CADLB	.	.	.	.	.	.	.	.	.	.	.	Disc ~40 mm Ø x ~15 mm
85X SASHA	.	.	.	.	.	.	.	.	(0.0005)	.	.	Disc 40 mm Ø x ~15 mm
85X CADLA	.	.	.	.	.	.	.	.	.	(0.0011)	.	Disc 40 mm Ø x ~15 mm
85X YUMA	.	.	.	.	.	.	.	.	0.0062	0.0008	.	Disc ~40 mm Ø x ~15 mm
85X 0616 Pb1C	.	.	0.0010	.	.	.	.	.	.	0.0087	.	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 Discharge

#	Number	Al	Cu	Fe	Mn	Ni	Pb	Si	Zn	Ag	Be
1	58A ST4360	(1.06)	0.025	0.02	0.148	0.0052	0.018	0.02	0.025	.	.
1	58A ST4320	(0.531)	0.0077	0.027	0.085	0.011	0.037	0.062	0.047	.	.
1	NCS HS49725-2	(0.531)	0.0077	0.027	0.085	0.011	0.037	0.062	0.047	.	.
1	58A ST4340	0.262	0.014	0.0069	0.023	0.0044	0.012	0.034	0.019	.	.
1	NCS HS49725-4	0.262	0.014	0.0069	0.023	0.0044	0.012	0.034	0.019	.	.
1	61X MgP3A	0.096	0.0296	0.014	0.0135	0.0049	0.0148	0.046	0.0196	0.0125	<0.0001
1	63X MgE1E	(0.088)	0.0503	0.0014	0.860	0.0162	0.011	0.052	0.083	0.0195	(0.0002)
1	61X MgP2A	0.065	0.0109	0.0061	0.0118	0.0029	0.0061	0.031	0.0122	0.003	<0.0001
2	58A ZH1120	0.063	0.037	0.012	0.062	0.012	0.0073	0.037	0.038	.	.
2	58A ZH1130	0.055	0.017	0.015	0.039	0.007	0.0035	0.055	0.02	.	.
1	61X MgP4A	0.0247	0.0108	(0.0044)	0.0100	0.0028	0.0066	0.037	0.0158	0.0203	<0.0001
1	NCS HS49725-3	0.017	0.0087	0.0083	0.019	0.0021	0.0067	0.023	0.012	.	.
2	58A ZH1140	0.017	0.0054	0.0044	0.011	0.0007	0.0013	0.0027	0.0058	.	.
2	58A ZH1160	0.011	0.0016	0.0071	0.016	0.0004	0.0025	0.019	0.004	.	.
1	NCS HS49725-1	0.011	0.0012	0.0028	0.017	0.00035	0.0052	0.011	0.011	.	.
1	58A ST4370	0.0082	0.0039	0.0055	0.017	0.0013	0.0067	0.03	0.013	.	.
1	NCS HS49725-7	0.0082	0.0039	0.0055	0.017	0.0013	0.0067	0.030	0.013	.	.
2	58A ZH1150	0.0062	0.0003	0.0015	0.0054	(0.0001)	(0.0005)	0.0024	0.0046	.	.
1	NCS HS49725-5	0.0059	0.00063	0.0022	0.0060	(0.00033)	0.0020	0.0063	0.0079	.	.
2	58A ZH1110	0.0052	0.062	0.0054	0.092	0.0041	0.012	0.015	0.058	.	.

Number	Ca	Cd	Ce	Cl	La	Na	Sn	Ti	Zr	~mm Ø x ~mm H
58A ST4360	.	.	.	.	.	.	.	0.0025	.	45 x 25
58A ST4320	.	.	.	.	.	.	.	(0.00018)	.	45 x 25
NCS HS49725-2	.	.	.	.	.	.	.	(0.00018)	.	45 x 25
58A ST4340	.	.	.	.	.	.	.	0.0012	.	45 x 25
NCS HS49725-4	.	.	.	.	.	.	.	0.0012	.	45 x 25
61X MgP3A	0.053	0.0154	0.0055	.	0.0038	.	0.0154	.	(0.0014)	40 x 20
63X MgE1E	.	0.0017	.	.	.	.	0.0053	.	.	50x20 or 40x15
61X MgP2A	0.0138	0.0063	0.0019	.	0.0014	.	0.0073	.	(0.0007)	40 x 20
58A ZH1120	.	.	.	(0.0023)	.	(0.0002)	.	.	.	~49 x ~34
58A ZH1130	.	.	.	(0.0027)	.	(0.0003)	.	.	.	~49 x ~34
61X MgP4A	0.028	0.0071	0.0041	.	0.0030	.	0.0067	.	0.030	40 x 20
NCS HS49725-3	.	.	.	.	.	.	.	0.000062	.	45 x 25
58A ZH1140	.	.	.	(0.0015)	.	(0.0003)	.	.	.	~49 x ~34
58A ZH1160	.	.	.	(0.0018)	.	(0.0001)	.	.	.	~49 x ~34
NCS HS49725-1	.	.	.	.	.	.	.	0.00027	.	45 x 25
58A ST4370	.	.	.	.	.	.	.	(0.00010)	.	45 x 25
NCS HS49725-7	.	.	.	.	.	.	.	(0.00010)	.	45 x 25
58A ZH1150	.	.	.	(0.0011)	.	(0.0001)	.	.	.	~49 x ~34
NCS HS49725-5	.	.	.	.	.	.	.	0.000072	.	45 x 25
58A ZH1110	.	.	.	(0.0018)	.	(0.0004)	.	.	.	~49 x ~34

## MAGNESIUM with RARE EARTHS

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

#	Number	Ag	Al	Be*	Ca	Cd*	Ce	Cu	Fe	Gd	La	Mn	Nd	Ni
1	67X MgK3A	.	<b>4.56</b>	7	.	.	0.83	0.0017	0.0024	0.038	0.374	0.516	0.175	0.0016
1	67X MgK2A	.	<b>3.84</b>	25	.	.	0.70	0.0041	0.0016	0.053	0.34	0.534	0.125	0.0033
1	64X MgQ9A	.	<b>2.14</b>	15	.	.	0.111	0.0104	0.0069	.	0.083	0.068	0.114	0.0020
1	66X MgD1B	.	<b>0.147</b>	.	.	.	0.065	0.066	0.0029	.	0.031	0.125	0.064	0.0162
1	61X MgP5A	0.0342	<b>0.119</b>	18	.	292	0.049	0.092	0.0048	.	0.0382	0.201	0.0446	0.0176
1	61X MgP6A	0.0043	<b>0.0449</b>	.	(0.0008)	25	0.0209	0.0067	0.0041	.	0.0137	0.0125	0.0238	0.0025
2	AA C7548	.	<b>0.004</b>	.	.	.	2.66	0.022	.	.	.	0.035	.	0.001
2	AA C7514	.	<b>0.002</b>	.	.	.	2.47	0.12	.	.	.	0.012	.	0.002
2	AA C7489	.	<b>0.001</b>	.	.	.	2.57	0.004	.	.	.	0.012	.	0.015
2	AA E1273	.	<b>0</b>	.	.	.	1.86	0.022	.	.	.	0.041	.	0.002
2	AA E1272	.	<b>0</b>	.	.	.	1.79	0.026	.	.	.	0.045	.	0.003
1	58A ST5280	.	.	.	.	.	<b>4.16</b>	.	.	.	.	.	.	.
1	58A ST5290	.	.	.	.	.	<b>3.37</b>	.	.	.	.	.	.	.
1	58A ST5260	.	.	.	.	.	<b>2.79</b>	.	.	.	.	.	.	.
1	58A ST5250	.	.	.	.	.	<b>1.54</b>	0.133	.	.	.	0.214	.	0.005
1	58A ST5240	.	.	.	.	.	<b>1.47</b>	0.051	.	.	.	0.062	.	0.084
1	58A ST5230	.	.	.	.	.	<b>1.28</b>	0.068	0.0041	.	.	0.067	.	0.0011
1	58A ST5220	.	.	.	.	.	<b>0.826</b>	0.054	0.0033	.	.	0.093	.	0.0009
1	58A ST5210	.	.	.	.	.	<b>0.149</b>	0.0092	0.0027	.	.	0.15	.	0.001
1	58A ST10350	.	.	.	.	.	.	.	.	.	.	.	<b>3.55</b>	.
2	AA D1075	.	.	.	.	.	.	.	.	.	.	.	.	.
2	AA D1073	.	.	.	.	.	.	.	.	.	.	.	.	.
2	AA D1072	.	.	.	.	.	.	.	.	.	.	.	.	.
2	AA D1074	.	.	.	.	.	.	.	.	.	.	.	.	.
1	58A ST9460	.	.	.	.	.	.	.	.	.	.	.	.	Ni
1	58A ST9450	.	.	.	.	.	.	.	.	.	.	.	.	.
1	58A ST9440	.	.	.	.	.	.	.	.	.	.	.	.	.

#	Number	Ag	Al	Be*	Ca	Cd*	Ce	Cu	Fe	Gd	La	Mn	Nd	Ni
---	--------	----	----	-----	----	-----	----	----	----	----	----	----	----	----

Number	Pb	Pr	R.E.	Si	Sn	Y	Zn	Zr	~mm Ø x ~mm H
67X MgK3A	.	0.069	.	0.068	.	.	0.050	.	50x20 or 40x15
67X MgK2A	.	0.053	.	0.057	.	.	0.132	.	50x20 or 40x15
64X MgQ9A	0.0096	.	.	(0.37)	0.0076	.	0.243	.	40 x 15
66X MgD1B	0.026	.	.	(0.073)	0.026	.	1.19	.	40 x 15
61X MgP5A	0.0357	.	.	0.094	0.0352	0.0132	0.099	.	40 x 15
61X MgP6A	0.0120	.	.	0.044	0.0091	0.0375	0.010	.	50x20 or 40x15
AA C7548	.	.	(4.8)	0.002	.	.	0.16	.	62 x 6
AA C7514	.	.	(4.7)	0.002	.	.	0.42	.	62 x 6
AA C7489	.	.	(5.0)	0.002	.	.	0.46	.	62 x 6
AA E1273	.	.	(3.6)	0.0	.	.	2.87	0.54	62 x 6
AA E1272	.	.	(3.3)	0.0	.	.	2.58	0.54	62 x 6
58A ST5280	.	.	.	.	.	.	3.52	0.63	45 x 25
58A ST5290	.	.	.	.	.	.	4.37	0.81	45 x 25
58A ST5260	.	.	.	.	.	.	4.36	(1.03)	45 x 25
58A ST5250	.	.	.	.	.	.	1.46	.	45 x 25
58A ST5240	.	.	.	.	.	.	2.69	.	45 x 25
58A ST5230	.	.	.	(0.0047)	.	.	3.63	.	45 x 25
58A ST5220	.	.	.	(0.0056)	.	.	4.58	.	45 x 25
58A ST5210	.	.	.	.	.	.	5.59	.	45 x 25
58A ST10350	.	.	.	.	.	.	.	.	45 x 25
AA D1075	.	.	(3.7)	.	.	.	(2.7)	0.64	62 x 6 last of stock
AA D1073	.	.	(3.7)	.	.	.	3.23	(0.6)	62 x 6
AA D1072	.	.	(3.4)	.	.	.	2.02	(0.5)	62 x 6
AA D1074	.	.	(3.4)	.	.	.	(2.7)	0.42	62 x 6
58A ST9460	.	.	.	.	.	<b>6.69</b>	.	.	45 x 25
58A ST9450	.	.	.	.	.	<b>4.3</b>	.	.	45 x 25
58A ST9440	.	.	.	.	.	<b>3.52</b>	.	.	45 x 25

Number	Pb	Pr	R.E.	Si	Sn	Y	Zn	Zr	~mm Ø x ~mm H
--------	----	----	------	----	----	---	----	----	---------------



## MAGNESIUM with ALUMINUM

#	Number	Al	Be	Ca	Cd	Cu	Fe	Mn	Ni	Pb	Si	Sn	Zn
1	58A ST2150	11.52	(0.0023)	.	.	0.295	(0.020)	(0.68)	0.018	.	0.176	.	0.217
1	65X MgA15A	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	58A ZH2050M	10.4	0.0007	.	.	0.307	0.0081	(0.71)	0.019	.	0.41	.	0.201
1	64X MgQ3A	8.66	0.0041	.	.	0.0349	0.0090	0.206	0.0032	0.0022	(0.083)	0.0019	0.0039
1	58A ST1240	7.33	0.00015	.	.	0.02	0.015	0.182	(0.0015)	.	0.27	.	0.171
1	64X MgQ4A	6.50	0.00029	.	.	0.310	0.0040	0.183	0.0068	0.0322	(0.067)	0.0282	0.188
1	58A ST2000a	5.96	(0.00024)	.	.	0.0035	0.007	0.02	0.00094	.	0.097	.	0.0068
1	58A ST3320	5.82	0.00018	.	.	0.0016	0.0077	0.095	0.0012	.	1.54	.	0.128
1	NCS HS49724-2	5.82	0.00018	.	.	0.0016	0.0077	0.095	0.0012	.	1.54	.	0.128
1	64X MgQ5A	5.76	0.0013	.	.	0.0072	0.0043	0.276	0.0010	0.0056	0.052	0.0050	0.047
1	58A ST1260	4.56	0.0009	.	.	0.013	0.025	(0.65)	0.0025	.	0.241	.	0.106
1	64X MgQ2A	4.53	0.0013	.	.	0.0151	0.0041	0.378	0.0061	0.0107	0.051	0.0107	0.107
1	58A ST3340	4.37	0.0009	.	.	0.103	0.022	0.33	0.0038	.	1.22	.	0.25
1	NCS HS49724-4	4.37	0.0009	.	.	0.103	0.022	0.33	0.0038	.	1.22	.	0.25
1	65X MgA17A	4.20	.	0.021	0.0049	0.0215	0.0069	0.203	0.0141	0.009	0.33	0.0050	0.128
1	64X MgQ7A	4.02	0.00042	.	.	0.0167	0.0028	(0.434)	0.0053	0.0126	(1.05)	0.0096	0.0607
1	65X MgB4C	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	58A ST3310	3.69	0.00011	.	.	0.0084	0.007	0.59	0.0012	.	0.54	.	0.102
1	NCS HS49724-1	3.69	0.00011	.	.	0.0084	0.0070	0.59	0.0012	.	0.54	.	0.102
1	58A ST3350	2.58	0.0012	.	.	0.039	0.033	0.23	0.014	.	1.83	.	0.152
1	NCS HS49724-5	2.58	0.0012	.	.	0.039	0.033	0.23	0.014	.	1.83	.	0.152
1	58A ST1220	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 MgQ6A	2.31	0.0007	.	.	0.0045	(0.004)	(0.260)	0.0026	0.0060	(0.97)	0.0055	0.072
1	58A ST3330	1.09	(0.0005)	.	.	0.016	(0.0034)	(0.50)	(0.0013)	.	0.68	.	0.339
1	NCS HS49724-3	1.09	(0.0005)	.	.	0.16	(0.0034)	(0.50)	(0.0013)	.	0.68	.	0.339
1	64X MgQ1A	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
1	64X MgQ8A	1.03	0.00015	.	.	0.0019	0.0018	0.700	0.0004	0.0008	0.045	0.0022	0.044

#	Number	Al	Be	Ca	Cd	Cu	Fe	Mn	Ni	Pb	Si	Sn	Zn
	Number	Ag	Ce	Hg	La	Sr	Ti	Zr	~mm Ø x ~mm H				
	65X MgA15A	0.030	0.0069	0.011	0.0048	.	.	.	50x20 or 40x15				
	58A ZH2050M	.	.	.	.	.	.	.	~49 x ~34				
	64X MgQ3A	.	.	.	.	.	.	.	50x20 or 40x15				
	58A ST1240	.	.	.	.	.	.	.	45 x 25				
	64X MgQ4A	.	.	.	.	.	.	.	50x20 or 40x15				
	58A ST1210	.	.	.	.	.	.	.	45 x 25				
	58A ST2000a	.	.	.	.	.	.	.	45 x 25				
	58A ST3320	.	.	.	.	.	.	.	45 x 25				
	NCS HS49724-2	.	.	.	.	.	.	.	45 x 25				
	64X MgQ5A	.	.	.	.	.	.	.	40 x 15				
	58A ST1260	.	.	.	.	.	.	.	45 x 25				
	64X MgQ2A	.	.	.	.	.	.	.	50x20 or 40x15				
	58A ST3340	.	.	.	.	.	.	.	45 x 25				
	NCS HS49724-4	.	.	.	.	.	.	.	45 x 25				
	65X MgA17A	0.0064	.	.	.	.	.	.	50x20 or 40x15				
	64X MgQ7A	.	.	.	.	.	.	.	50x20 or 40x15				
	65X MgB4C	0.0046	0.0003	.	(0.0001)	.	(0.0008)	<0.001	40 x 18				
	58A ST3310	.	.	.	.	.	.	.	45 x 25				
	NCS HS49724-1	.	.	.	.	.	.	.	45 x 25				
	58A ST3350	.	.	.	.	.	.	.	45 x 25				
	NCS HS49724-5	.	.	.	.	.	.	.	45 x 25				
	58A ST1220	.	.	.	.	.	.	.	45 x 25				
	AA C8209	.	.	.	.	.	.	.	62 x 6				
	64X MgQ6A	.	.	.	.	.	.	.	50x20 or 40x15				
	58A ST3330	.	.	.	.	.	.	.	45 x 25				
	NCS HS49724-3	.	.	.	.	.	.	.	45 x 25				
	64X MgQ1A	.	.	.	.	.	.	.	50x20 or 40x15				
	NCS HS49725-6	.	.	.	.	.	0.0025	.	45 x 25				
	64X MgQ8A	.	.	.	.	.	.	.	50x20 or 40x15				
	Number	Ag	Ce	Hg	La	Sr	Ti	Zr	~mm Ø x ~mm H				

## MAGNESIUM with ALUMINUM and ZINC

# = class, where 1 = CRM and 2 = RM      ##: not for Glow Discharge

#	Number	Al	Zn	Be	Ca	Cd	Cu	Fe	Mn	Ni	Pb	Si	Sn
1	65X MgA21A	12.37	5.11	0.0006	.	.	0.0020	0.0140	0.0777	0.0010	0.0048	0.028	0.0063
1	65X MgA23A	9.72	0.543	0.0026	.	.	0.0153	0.0083	0.130	0.0011	0.0020	0.0270	0.0026
1	58A ST2160	9.07	0.98	0.0029	.	.	0.0098	0.039	0.61	0.0036	.	0.43	.
2	58A ZH2040M	9.0	0.46	0.0013	.	.	0.222	0.01	0.57	0.015	.	0.285	.
1	65X MgA19A	8.97	2.17	0.00025	.	.	0.0426	0.0085	0.322	0.0065	0.049	0.196	0.049
1	65X MgA22A	8.60	0.882	0.0005	.	.	0.0783	0.0054	0.40	0.0057	0.0039	(0.086)	0.0032
2	AA SM183-B	(8.0)	(3.0)	.	.	.	.	.	(0.2)	0.005	.	.	.
2	AA SM183-C	(8.0)	(3.0)	.	.	.	.	.	(0.2)	0.005	.	.	.
1	65X MgA13A	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	58A ZH2030M	6.97	0.71	0.0017	.	.	0.151	0.018	0.374	0.0096	.	0.183	.
1	65X MgA16A	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 MgA18A	6.75	0.502	0.00051	.	.	0.052	0.0081	0.192	0.0074	0.0244	0.043	0.0114
1	58A ST2120a	6.40	2.50	0.0004	.	.	0.080	0.008	0.35	0.0060	.	0.12	.
1	65X MgA20A	5.87	1.32	0.0018	.	.	0.013	0.008	0.067	0.0025	0.0075	0.052	0.032
1	65X MgA12A	5.68	3.18	(0.0036)	0.037	0.0121	0.022	0.0053	0.198	0.0148	0.010	0.0142	0.0021
1	65X MgA1J ##	5.45	1.26	0.006	0.029	0.013	0.221	0.021	0.060	0.021	0.012	0.20	0.072
2	58A ZH2020M	5.06	0.95	0.0022	.	.	0.085	0.028	0.256	0.0047	.	0.10	.
1	58A ST2110a	4.45	4.1	(0.00015)	.	.	0.00072	0.0029	0.077	0.00042	.	0.019	.
1	65X MgA11A	3.63	1.59	0.0021	0.102	0.0014	0.0496	0.0048	0.044	0.0134	0.0190	0.022	0.093
1	65X MgB3C	3.38	0.711	0.0019	(0.0033)	0.0025	0.022	0.0028	0.277	0.0027	0.0023	0.042	0.0017
2	58A ZH2010M	3.04	1.21	0.0032	.	.	0.0096	0.035	0.082	0.0006	.	0.037	.
2	AA C7641	(3.0)	1.36	.	.	.	.	.	.	.	.	.	.
1	65X MgB2D	2.81	1.047	0.0014	(0.010)	0.0103	0.065	0.0032	0.526	0.0043	0.0053	(0.088)	0.0052
1	65X MgB2C	2.67	0.95	0.0008	0.011	0.0114	0.113	(0.010)	0.333	0.0027	0.0036	0.069	0.0047
2	AA C7639	2.39	(1.0)	.	.	.	.	.	(0.4)	.	.	.	.
1	65X MgB1E	1.90	1.60	0.0008	(0.067)	0.076	0.051	0.0027	0.770	0.0020	0.0095	0.069	0.0098
1	58A ST1270	1.36	0.492	0.0033	.	.	0.01	0.0049	0.13	0.01	.	0.065	.

#	Number	Al	Zn	Be	Ca	Cd	Cu	Fe	Mn	Ni	Pb	Si	Sn
---	--------	----	----	----	----	----	----	----	----	----	----	----	----

Number	Ag	Ce	Hg	La	Ti	Zr	~mm Ø x ~mm H
65X MgA21A	.	.	.	.	.	.	50x20 or 40x15
65X MgA23A	.	.	.	.	.	.	50x20 or 40x15
58A ST2160	.	.	.	.	.	.	45 x 25
58A ZH2040M	.	.	.	.	.	.	~49 x ~34
65X MgA19A	.	.	.	.	.	.	50x20 or 40x15
65X MgA22A	.	.	.	.	.	.	40 x 15
AA SM183-B	.	.	.	.	.	.	62 x 6
AA SM183-C	.	.	.	.	.	.	62 x 6
65X MgA13A	0.0074	0.0024	(0.033)	0.0021	.	.	50x20 or 40x15
58A ZH2030M	.	.	.	.	.	.	~49 x ~34
65X MgA16A	0.0035	0.0017	0.005	0.0012	.	.	50x20 or 40x15
65X MgA18A	.	.	.	.	.	.	50x20 or 40x15
58A ST2120a	.	.	.	.	.	.	45 x 40
65X MgA20A	.	.	.	.	.	.	50x20 or 40x15
65X MgA12A	0.0128	0.0009	(0.016)	0.0007	.	.	50x20 or 40x15
65X MgA1J ##	0.012	0.009	.	0.007	(0.005)	(0.0015)	45 x 20
58A ZH2020M	.	.	.	.	.	.	~49 x ~34
58A ST2110a	.	.	.	.	.	.	45 x 25
65X MgA11A	(0.0002)	(0.0005)	0.006	(0.0005)	.	.	50x20 or 40x15
65X MgB3C	0.0028	.	.	.	.	.	50x20 or 40x15
58A ZH2010M	.	.	.	.	.	.	~49 x ~34
AA C7641	.	.	.	.	.	.	62 x 6
65X MgB2D	0.0099	.	.	.	.	.	50x20 or 40x15
65X MgB2C	0.0098	0.0009	.	0.0007	0.0003	<0.001	40 x 15
AA C7639	.	.	.	.	.	.	62 x 6
65X MgB1E	0.0300	.	.	.	.	.	50x20 or 40x15
58A ST1270	.	.	.	.	.	.	45 x 25

Number	Ag	Ce	Hg	La	Ti	Zr	~mm Ø x ~mm H
--------	----	----	----	----	----	----	---------------

**MAGNESIUM with MANGANESE**

# = class, where 1 = CRM and 2 = RM

#	Number	Mn	Al	Cu	Fe	Ni	Pb	Si	Sn	Zn	Ag	Ca	Cd	~mm Ø x ~mm H
2	AA C8096	1.88	(0.1)	(0.04)	.	(0.003)	.	(0.05)	.	(0.1)	.	.	.	62 x 6
1	63X MgE2B	1.76	0.045	0.0203	0.0019	0.0035	0.0020	0.019	0.0026	0.0243	0.0089	(0.0016)	0.0009	40 x 15
2	AA SMD3A	1.69	0.08	0.032	.	0.002	.	0.034	.	0.058	.	.	.	62 x 6
1	63X MgE3C	1.62	(0.056)	0.0072	0.0005	0.0028	0.0046	0.014	0.006	0.0101	0.0041	.	0.0046	50x20 or 40x15
2	AA C8095	(1.6)	0.17	0.012	.	0.005	.	0.052	.	0.029	.	.	.	62 x 6
2	AA C8016	(1.3)	0.03	0.070	.	0.011	.	0.064	.	0.11	.	.	.	62 x 6
2	AA C7857	1.07	(0.1)	(0.03)	.	(0.001)	.	(0.05)	.	(0.1)	.	.	.	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	58A ST5310	7.20	.	0.0040	.	.	1.64	0.0110	0.967	0.0020	.	0.025	.	.	.	45 x 35
1	66X MgC4C	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	58A ST7320	6.68	.	(0.036)	.	.	3.45	0.0069	0.361	0.00024	.	0.066	.	.	.	45 x 25
1	66X MgC5A	6.61	.	0.072	.	.	0.0286	0.0008	1.17	0.0111	0.0281	0.026	0.0051	.	.	50x20 or 40x15
1	66X MgD5A	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	58A ST7330	6.01	.	0.205	.	.	2.76	0.019	0.57	0.055	.	0.144	.	.	.	45 x 25
1	58A ST7340	5.52	.	0.148	.	.	3.71	(0.019)	0.25	0.018	.	0.332	.	.	.	45 x 25
1	58A ST7350	4.76	.	0.106	.	.	4.17	0.016	0.133	0.0022	.	0.215	.	.	.	45 x 25
2	AA C7510	3.04	.	.	0.11	.	0.019	.	.	0.001	.	.	.	.	.	62 x 6
2	AA SML76	(3.0)	.	0.19	.	.	(0.03)	.	(0.2)	.	.	(0.1)	.	.	.	62 x 6
2	AA SML75	(2.0)	.	0.21	.	.	(0.03)	.	(0.2)	.	.	(0.1)	.	.	.	62 x 6

## 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	.	<b>99.99</b>	0.002	.	0.002	.	0.002	0.002	0.002	.	.	.
FLX 1404	.	<b>99.69</b>	.	.	.	.	.	.	.	.	.	Co: 0.310
FLX 0701	4.59	<b>91.76</b>	3.65	.	.	.	.	.	.	.	.	.
FLX 0702	4.60	<b>90.12</b>	5.28	.	.	.	.	.	.	.	.	.
FLX 1405	.	<b>81.89</b>	.	.	.	18.11	.	.	.	.	.	.
FLX 0743	.	<b>80.07</b>	1.12	.	.	14.35	.	.	.	.	.	4.46
FLX 1402	5.16	<b>76.37</b>	10.29	.	.	.	.	.	.	.	.	8.18
FLX 0703	4.18	<b>75.14</b>	4.93	.	.	.	15.75	.	.	.	.	.
FLX 0708	.	<b>75.12</b>	17.47	.	.	5.81	.	.	.	.	.	1.60
FLX 0726	10.16	<b>75.11</b>	14.73	.	.	.	.	.	.	.	.	.
FLX 0728	4.79	<b>75.1</b>	20.11	.	.	.	.	.	.	.	.	.
FLX 0727	8.98	<b>75.07</b>	15.95	.	.	.	.	.	.	.	.	.
FLX 0724	15.07	<b>75.05</b>	9.88	.	.	.	.	.	.	.	.	.
FLX 0725	12.54	<b>75.03</b>	12.43	.	.	.	.	.	.	.	.	.
FLX 0705	10.09	<b>75.03</b>	4.83	.	.	.	10.05	.	.	.	.	.
FLX 0704	2.75	<b>75.03</b>	9.74	.	.	.	12.48	.	.	.	.	.
FLX 0707	2.75	<b>75.02</b>	15.13	.	.	5.04	.	.	.	.	.	2.06
FLX 0706	13.13	<b>75.0</b>	5.42	.	.	.	6.45	.	.	.	.	.
FLX 1302	15.16	<b>59.13</b>	17.31	.	.	.	.	.	.	.	.	8.40
FLX 0710	30.94	<b>59.06</b>	3.48	.	.	.	6.52	.	.	.	.	.
FLX 0709	21.93	<b>59.02</b>	4.05	.	.	.	15.0	.	.	.	.	.
FLX 0903	4.32	<b>58.69</b>	36.99	.	.	.	.	.	.	.	.	.
FLX 0738	19.7	<b>58.65</b>	19.22	.	.	.	.	.	.	.	.	2.43
FLX 0904	13.77	<b>58.65</b>	27.58	.	.	.	.	.	.	.	.	.
FLX 0905	25.06	<b>58.64</b>	14.92	.	.	.	.	.	.	.	.	1.38
FLX 0715	.	<b>58.64</b>	26.18	.	.	6.09	.	.	.	.	.	9.09
FLX 0736	33.01	<b>58.61</b>	7.89	.	.	.	.	.	.	.	.	0.49
FLX 0712	27.36	<b>58.59</b>	4.05	.	.	.	10.0	.	.	.	.	.
FLX 0735	6.65	<b>58.58</b>	31.08	.	.	.	.	.	.	.	.	3.69
FLX 0739	33.39	<b>58.53</b>	8.08	.	.	.	.	.	.	.	.	.
FLX 0729	29.42	<b>58.52</b>	12.06	.	.	.	.	.	.	.	.	.
FLX 0711	10.72	<b>58.49</b>	26.47	.	.	.	.	.	.	.	.	4.32
FLX 0713	4.84	<b>58.47</b>	24.91	.	.	8.39	.	.	.	.	.	3.39
FLX 0714	.	<b>58.44</b>	41.31	.	.	.	.	.	.	.	.	0.25
FLX 0744	26.84	<b>55.37</b>	10.09	.	.	.	6.49	.	.	.	.	1.21
FLX 0737	6.15	<b>38.35</b>	46.89	.	.	.	.	.	.	.	.	8.61
FLX 1301	45.83	<b>37.63</b>	12.67	.	.	.	.	.	.	.	.	3.87
FLX 0716	15.09	<b>37.63</b>	37.97	.	.	.	.	.	.	.	.	9.31
FLX 0731	54.31	<b>37.52</b>	8.17	.	.	.	.	.	.	.	.	.
FLX 0732	58.75	<b>33.71</b>	7.54	.	.	.	.	.	.	.	.	.
FLX 0734	6.3	<b>33.65</b>	50.28	.	.	.	.	.	.	.	.	9.77
FLX 1401	33.00	<b>33.61</b>	33.36	.	.	.	.	.	.	.	.	0.030
FLX 0718	6.21	<b>33.56</b>	49.69	.	.	.	.	.	.	.	.	10.54
FLX 0717	11.92	<b>33.52</b>	41.04	.	.	.	.	.	.	.	.	13.52
FLX 1403	5.90	<b>29.36</b>	53.80	0.010	.	0.200	0.030	0.010	.	.	.	10.68 Cd: 0.010
FLX 0721	<b>99.97</b>	.	0.008	.	0.005	.	0.005	0.007	0.005	.	.	.
FLX 0719	<b>99.94</b>	.	0.06	.	.	.	.	.	.	.	.	.
FLX 0730	<b>93.56</b>	.	6.44	.	.	.	.	.	.	.	.	.
FLX 1303	<b>92.76</b>	.	4.92	.	.	.	.	.	.	.	.	2.32
FLX 0733	<b>83.75</b>	.	16.25	.	.	.	.	.	.	.	.	.
FLX 1406	<b>34.98</b>	.	6.50	.	.	.	58.52	.	.	.	.	.
FLX 0742	0.005	.	<b>99.99</b>	0.005	.	.	.	.	.	.	.	.
FLX 0740	.	.	0.005	.	0.09	.	.	.	<b>99.90</b>	0.005	.	.
FLX 0723	.	.	0.01	0.01	.	.	<b>99.96</b>	0.01	0.01	.	.	.
FLX 0722	.	.	.	.	0.02	.	0.02	<b>99.95</b>	0.01	.	.	.
FLX 0741	.	.	4.16	.	.	.	.	<b>95.84</b>	.	.	.	.
FLX 0902	.	.	.	.	.	.	.	<b>95.37</b>	.	.	4.63	.
FLX 0901	.	.	.	.	.	.	.	<b>95.23</b>	.	4.77	.	.
FLX 1202	.	.	.	.	10.0	.	.	<b>90.0</b>	.	.	.	.
FLX 1201	.	.	.	.	25.0	.	.	<b>75.0</b>	.	.	.	.
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 0720-16	.	99.99	0.002	.	.	.
FLX 0720-16a	.	99.99	.	.	.	.
FLX 0704-16c	3.05	75.08	9.37	.	12.5	.
FLX 0715-16a	9.05	59.10	25.74	6.11	.	.
FLX 0738-16	19.8	58.58	21.1	.	.	0.52
FLX 0744-16	26.8	55.68	9.43	.	6.57	1.52
FLX 0732-16	57.1	33.46	9.44	.	.	.
FLX 0734-16a	7.09	33.41	48.82	.	.	10.68

Ir, Pd, Pt, Rh: 0.002  
last of stock

**CRM GOLD ALLOYS**

analysis listed in mass % ~16 mm disc mounted in acrylic 40 mm Ø x 5 mm

Number	Alloy	Ag	Au	Cu	Ni	Zn
ERM-EB508	Yellow Gold	24.90	75.12	.	.	.
ERM-EB507	White Gold	3.02	75.10	14.69	4.99	2.107
ERM-EB506	Rose Gold	3.90	58.56	35.65	.	1.891

**SILVER**

analysis listed in mg/kg 131X PAG: RM, 34 Ø x 12mm 131X PAG: RM, 25 Ø x 3mm IMN SH: CRM 40 Ø x ~15-20mm IMN SJ: 40 mm Ø x ~15-20 mm

Number	Cu	Al	As	Au	Bi	Cd	Fe	Ga	In	Ir	Mn	Ni	P	Pb	Pd	Pt	Rh	Sb	Se	Si	Sn	Te	Tl	Zn
131X ACP1B	815	.	145	521	523	377	57	.	.	.	404	276	.	420	332	505	.	485	299	.	505	435	.	502
131X PAG2A	400	2	8	20	12	5	7	15	.	0.02	10	9	2	12	180	10	2	12	10	4	14	15	.	40
IMN SJ2	306.0	.	41.3	35.4	47.4	21.2	26.4	.	49.2	.	46.1	49.7	.	82.5	41.5	44.4	.	81.2	45.7	.	.	43.0	40.5	135.1
131X AGP2B	193	.	29	114	96	56	(20)	.	.	.	49	57	.	75	105	112	.	107	65	.	95	90	.	109
131X PAG1A	75	8	12	120	40	35	5	60	.	0.02	35	25	4	40	180	35	<1	50	35	30	40	120	.	50
131X AGP3B	66	.	6	26	12	6	(11)	.	.	.	3	12	.	12	16	23	.	21	16	.	22	18	.	34
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
131X AGP4B	41	.	3	9	7	2	(23)	.	.	.	3	6	.	5	7	7	.	12	6	.	6	5	.	20
IMN SJ1	15.3	.	1.8	4.9	1.4	2.2	2.1	.	1.4	.	6.5	2.6	.	7.2	2.0	1.2	.	1.5	1.2	.	.	1.6	(0.70)	382.6

**RM SILVER ALLOYS**

analysis in mass %

Number	Ag	Au	Cu	Pb	Zn	Units
132X AGB100C	99.94	.	0.009	.	.	-40 mm Ø x ~10 mm
132X AGB100A	99.89	.	0.136	.	.	-40 mm Ø x ~10 mm
132X AGB100B	99.84	.	0.012	.	.	-40 mm Ø x ~10 mm
132X AGB94A	93.98	.	5.83	.	.	-40 mm Ø x ~10 mm
132X AGB93B	92.70	.	7.27	.	.	-40 mm Ø x ~10 mm
132X 925Zn1B	92.70	.	6.09	.	1.39	25 mm Ø x 3 mm
132X 925Zn3B	92.64	.	4.53	.	2.88	25 mm Ø x 3 mm
132X AGB90A	90.16	.	9.56	.	.	-40 mm Ø x ~10 mm
132X AGB90B	89.73	.	10.24	.	.	-40 mm Ø x ~10 mm
132X AGB88B	88.12	.	11.87	.	.	-40 mm Ø x ~10 mm
132X AGB87B	87.13	.	12.67	.	.	-40 mm Ø x ~10 mm
132X AGB85C	84.87	.	15.09	.	.	-40 mm Ø x ~10 mm
132X AGB75B	75.20	.	24.75	.	.	-40 mm Ø x ~10 mm
132X AGB75C	75.11	.	24.53	.	.	-40 mm Ø x ~10 mm
133X AGQ3C	rem	1.975	9.612	0.921	.	25 mm Ø x 3 mm
133X AGQ2C	rem	0.978	5.808	0.469	.	25 mm Ø x 3 mm
133X AGQ1C	rem	0.251	2.532	0.245	.	25 mm Ø x 3 mm

**RM SILVER ALLOYS**

analysis in mass %

Number	Au	Bi	Cu	Pb	Sb	Se	Si	Sn	Zn	Al	As	Cd	Co	Cr	Fe	Ge	In
133X AGA1A	1.48	0.194	19.95	0.207	0.050	0.0169	.	0.291	0.211	0.0096	0.0255	0.0165	0.0406	.	0.039	0.0107	0.0037
133X AGA2A	0.507	0.113	10.00	1.02	0.192	0.0078	.	0.520	0.502	0.0019	0.0144	0.0113	0.0163	.	0.027	0.0047	0.0065
133X AGA3A	0.258	0.048	4.91	1.89	0.459	0.0044	.	0.921	0.816	(0.0020)	0.0080	0.0042	0.0050	.	(0.015)	0.0045	0.0134
131X AgSe2A	.	0.0790	0.1333	.	.	0.0465	0.0039	.	.	0.0043	.	.	.	0.0037	0.0022	.	.
131X AgSe1A	.	0.0304	.	.	.	0.0162	.	.	.	.	.	.	.	.	0.0023	.	.

Number	Mn	Ni	Pd	Pt	Te	Units
133X AGA1A	0.0061	0.0118	0.0054	0.0067	0.0271	~25 mm Ø x ~3 mm
133X AGA2A	0.0115	0.0264	0.0076	0.0114	0.0098	~25 mm Ø x ~3 mm
133X AGA3A	0.0098	0.0450	0.0156	0.0256	0.0054	~25 mm Ø x ~3 mm
131X AgSe2A	.	.	.	.	.	-40 mm Ø x ~10 mm
131X AgSe1A	.	.	.	.	.	-40 mm Ø x ~10 mm

## TIN

# = class, where 1 = CRM and 2 = RM

analysis listed in mass %

\* Provisional Analysis

#	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 SR3F	0.050	(0.0014)	0.097	0.0145	0.123	.	0.100	.	.	0.121	0.0203	0.0339	.	0.115	0.104
1	71X SR2F	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 SR1F	0.0165	(0.002)	0.0032	0.0022	0.0102	.	0.0109	0.0016	.	0.0016	(0.002)	.	0.011	0.0178	0.0104
1	71X SR0C	0.0024	0.0414	0.00053	0.0012	0.0029	.	0.0024	0.00040	.	0.0073	0.0040	0.0054	0.0021	0.0099	0.0088
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 SR3F	0.0371	.	0.306	.	0.128	0.0031	.	.	0.070	.	0.054	.	~40 mm $\phi$ x ~15 mm
71X SR2F	0.0183	(0.007)	0.151	.	0.074	.	.	.	0.0246	0.005	0.0058	.	~40 mm $\phi$ x ~15 mm
71X SR1F	0.0058	0.0014	0.0256	(0.002)	0.0203	0.004	.	.	0.0010	.	0.0126	.	~40 mm $\phi$ x ~15 mm
71X SR0C	0.0025	0.0004	0.0457	.	0.0055	0.0006	.	.	0.0021	.	0.0053	.	~40 mm $\phi$ 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 $\phi$ x 15 mm
SRM 1729	(0.00022)	.	0.000311	.	(0.00964)	.	(0.0020)	(96.9)	.	.	0.0518	.	39 mm $\phi$ x 15 mm

## RM

## TIN - LOW ALLOY

37 mm  $\phi$  x 12 mm

Number	Ag	Al	As	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	$<0.1$

## RM

## BISMUTH AND SULPHUR IN TIN

certified analysis in bold, rest is informational composition

37 mm  $\phi$  x 12 mm

Number	Bi	S	Ag	Al	As	Au	Cd	Cu	Fe	In	Ni	P	Pb	Sb	Sn	Zn
NF 60-4	<b>3.99</b>	$<0.001$	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	<b>3.00</b>	$<0.001$	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	<b>2.39</b>	$<0.001$	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 60-1	<b>2.01</b>	$<0.001$	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 59-5	0.008	<b>0.020</b>	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	<b>0.0085</b>	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	<b>0.0048</b>	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	<b>0.0007</b>	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 59-1	0.008	<b><math>&lt;0.0006</math></b>	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

## CRM

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

analysis listed in mass %

~40 mm  $\phi$  x ~15 mm

Number	Ag	Al	As	Au	Bi	Cd	Co	Cu	Fe	Ge	Hg	In	Ni	P	Pb	S	Sb	Se	Zn
74X CA5B	4.09	(0.0014)	0.0125	0.0091	0.0050	0.0023	.	1.189	0.0021	.	0.0030	0.0129	0.0149	(0.011)	0.044	.	0.124	(0.0004)	(0.0019)
74X CA7B	4.02	Cr:0.0045	0.0085	.	0.0102	0.0059	(0.0018)	0.347	0.007	.	0.049	0.0053	0.0315	.	0.107	.	0.0194	.	0.0501
74X AB1A	3.58	.	0.0280	0.0010	0.997	0.0199	0.0032	0.0285	0.0435	.	.	0.0262	0.0036	.	0.0353	.	0.0111	.	.
74X CA2C	3.50	.	0.0145	0.0016	0.0298	0.0039	0.0025	0.797	0.0038	0.014	0.0054	0.0084	0.0336	0.005	0.057	.	0.0806	.	0.0015
74X CA4D*	3.0	.	0.0028	0.002	0.053	0.0023	$<0.001$	0.55	0.005	.	0.008	0.011	0.058	.	0.08	.	0.063	.	0.005
74X CA3B	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 HAG	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 CA8B	2.47	.	0.0144	.	0.0172	0.0101	0.0202	0.950	0.0043	0.0020	0.101	0.0062	0.0020	0.010	0.084	.	0.0180	.	.
74X CA9A	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 EF	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 AMF	0.496	(0.0012)	0.0038	.	0.190	0.0061	.	3.07	(0.0006)	.	.	0.0082	0.0260	(0.0016)	0.126	.	1.064	(0.0013)	(0.0055)
74X CALB	0.440	0.0262	.	0.0053	0.0131	0.0071	.	0.682	.	.	.	.	.	.	0.077	.	0.0169	.	.
74X CA6B	0.305	(0.0003)	0.0133	0.0050	0.0098	0.0005	.	0.602	0.0120	.	0.0039	0.0243	0.0246	(0.001)	0.0287	.	(0.01)	(0.0005)	(0.0005)
74X WSA	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 HNF	0.160	0.0011	0.016	.	0.042	0.0046	.	4.12	0.020	.	.	0.0052	0.195	(0.001)	0.0050	.	0.038	0.0024	0.0068
74X HNE	0.143	0.005	0.010	.	0.122	0.0057	.	3.82	0.010	.	.	.	0.185	(0.002)	0.0404	last	0.037	0.0016	(0.0009)
74X OAA	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 HBG	0.086	(0.0026)	0.045	.	0.038	0.0103	.	4.49	0.0138	.	.	0.0179	1.22	(0.002)	0.056	.	4.81	0.0038	(0.02)
74X GE2A	0.079	0.068	.	.	.	0.0086	.	0.713	.	0.479	.	.	0.031	.	0.0467	.	.	.	.
74X GE1A	0.052	0.065	.	.	.	0.0059	.	0.662	.	0.046	.	.	0.0289	.	0.0339	.	.	.	.
74X TCF	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 BZ1A	0.004	0.0021	0.0119	.	3.03	0.0012	.	0.026	0.011	.	.	.	0.0097	.	0.0238	.	0.031	.	8.27

\* Provisional analysis



**RM TIN - SILVER ALLOYS**

37 mm Ø x 12 mm

Number	Ag	Bi	Cu	Ge	Hg	In	Ni	P	Pb	Sb	Sn	Zn
NF 46-3	5.0 #	0.25	0.030	# = segregation in Ag noted				.	0.21	0.059	Rem	(0.017)
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 46-2	4.1	0.095	0.096	.	.	.	.	.	0.059	0.11	Rem	(0.007)
NF 57-2	4.01	0.46	.	.	0.0002	.	.	0.006	<0.001	.	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 46-1	3.1	0.05	0.19	.	.	.	.	.	0.043	0.205	Rem	(0.015)
NF 57-1	3.00	0.004	0.49	.	0.0016	.	.	0.004	0.076	.	Rem	.
NF 9-1	3.00	0.048	0.073	.	.	.	.	.	Rem	0.51	59.90	.
NF 61-4	2.58	.	.	.	.	.	.	.	Rem	.	62.0	.
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 61-3	2.33	.	.	.	.	.	.	.	Rem	.	62.0	.
NF 9-2	2.00	0.093	0.040	.	.	.	.	.	Rem	0.38	61.90	.
NF 61-2	1.81	.	.	.	.	.	.	.	Rem	.	62.0	.
NF 61-1	1.54	.	.	.	.	.	.	.	Rem	.	62.0	.
NF 63-4	1.50	.	0.194	0.025	.	0.027	0.12	.	0.012	.	Rem	.
NF 63-3	1.18	.	0.53	0.005	.	0.053	0.066	.	0.024	.	Rem	.
NF 63-2	1.02	.	0.104	0.052	.	0.005	0.027	.	0.18	.	Rem	.
NF 63-5	1.01	.	0.51	0.010	.	0.11	0.065	.	0.018	.	Rem	.
NF 9-3	1.00	0.25	0.010	.	.	.	.	.	Rem	0.23	63.60	.
NF 63-1	0.74	.	0.077	0.079	.	0.200	0.068	.	0.009	.	Rem	.
NF 58-3	0.51	0.077	0.59	.	0.0043	.	.	0.010	0.040	.	Rem	.
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	.

**CRM TIN BASE SETS**

available in sets only, as grouped

Number	Ag	Al	As	Au	Bi	Cd	Cu	Fe	In	Ni	Pb	Sb	Sn	Zn
IMN LBA 1	0.632	.	0.0459	0.0115	0.230	0.00085	0.282	0.0195	0.208	0.0055	0.228	0.0517	Rem	0.0032
IMN LBA 2	0.697	(0.0029)	0.0314	0.0259	0.175	0.0052	0.487	0.0182	0.127	0.0107	0.319	0.0979	Rem	0.0047
IMN LBA 3	0.0971	0.0022	0.0239	0.0468	0.0989	0.0039	0.885	0.0057	0.0949	0.0224	0.141	0.142	Rem	0.0020
IMN LBA 4	0.0976	0.0061	(0.0086)	0.0632	0.0364	0.0058	1.21	0.0114	0.0503	0.0320	0.0862	0.457	Rem	0.0006
IMN LBA 5	0.214	.	(0.0090)	0.691	0.325	0.0053	0.763	0.0098	0.0228	0.0346	0.0579	0.286	Rem	(0.0009)
IMN LCA 1	0.210	<0.0012	0.0494	0.0677	0.269	0.0093	.	.	0.141	.	0.229	0.490	Rem	.
IMN LCA 2	0.158	.	0.0864	0.0542	0.146	0.0073	2.67	0.0155	0.0610	0.0210	0.0773	0.138	Rem	0.0016
IMN LCA 3	0.107	(0.0011)	0.0285	0.0260	0.100	0.0025	3.53	0.0143	0.0081	0.0102	0.137	0.101	Rem	0.0042
IMN LCA 4	0.0545	(0.0023)	0.0145	0.0100	0.0403	0.0115	4.51	0.0101	0.0442	0.0056	0.0890	0.0479	Rem	0.0103
IMN LCA 5	0.221	.	0.0386	0.0670	0.263	0.0006	1.52	0.0295	0.0533	0.0315	0.232	0.458	Rem	0.0011
IMN L89 1	.	.	0.019	.	0.012	0.19	3.20	0.18	.	0.010	0.072	5.66	Rem	0.099
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
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
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

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

**CRM TITANIUM**

\* Provisional Analysis

# = 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	BCR 090	(0.074)	0.00282	.	0.0501	0.0533	0.0513	0.0563	.	0.0314	0.0488	.	(0.0492)	0.0667	.
1	<b>BS T-81</b>	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	<b>BS T-4A</b>	0.040	.	0.014	.	0.026	(0.001)	0.19	(0.0027)	0.003	0.0006	0.005	.	0.014	(0.37)
1	IARM 312B	0.018	(0.001)	0.0092	(0.002)	0.010	(0.003)	0.072	0.0004	(0.001)	(0.003)	0.007	(0.001)	0.019	0.128
1	IARM 303B *	(0.015)	<0.001	0.035	<0.002	0.0018	(0.002)	0.120	(0.0008)	(0.001)	(0.002)	0.017	(0.006)	(0.0013)	0.176
1	IARM 361A	(0.013)	(0.0005)	(0.012)	(0.002)	0.008	(0.003)	0.095	(0.0027)	(0.001)	0.288	(0.006)	(0.004)	0.88	0.15
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	<b>BS T-2A</b>	0.005	.	(0.007)	.	0.018	(0.001)	0.156	(0.0020)	0.003	0.002	(0.0044)	.	0.021	(0.12)

BCR: HIP; 090A: 40mm Ø x 20mm; 090B: ~25g of 0.2g cubes BS: 38-40 Ø x ~7, 12, or 19mm 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
BCR 090	.	.	.	.	.	(0.071)	(0.057)	(0.050)	.	(0.0436)	
<b>BS T-81</b>	.	0.0398	0.0310	.	0.0474	0.0155	0.0186	0.0372	0.0017	0.0163	Ti Cp 17
<b>BS T-4A</b>	(0.001)	.	(0.0004)	.	0.011	0.005	(0.001)	<0.002	.	<0.002	Ti Cp 1
IARM 312B	(0.002)	(0.005)	(0.001)	(0.0008)	(0.006)	(0.004)	0.009	(0.005)	(0.001)	0.0014	Ti CP 4.1
IARM 303B *	.	0.13	<0.01	<0.002	(0.006)	(0.006)	(0.0023)	<0.002	<0.001	(0.0028)	Ti Cp 7
IARM 361A	(0.003)	(0.002)	(0.006)	(0.004)	(0.012)	(0.004)	(0.006)	(0.003)	(0.0004)	(0.0016)	Ti CP 12
IARM 312A	.	(0.004)	.	(0.001)	0.006	0.0012	(0.002)	.	(0.0004)	(0.001)	Ti CP 4.1
<b>BS T-2A</b>	.	.	(0.0004)	0.002	0.006	0.006	<0.002	<0.002	.	<0.003	Ti Cp 1

last 18mm only  
17025 last 12mm only



## CRM TITANIUM SETS available in SETS ONLY, as grouped

Number	Al	C	Fe	Mo	Si	Sn	V	Zr	Units
58A HC03001	4.51	.	.	2.69	.	1.36	.	5.35	35 mm Ø x 35 mm
58A HC03002	5.31	.	.	2.4	.	1.71	.	4.59	
58A HC03003	6.05	.	.	2.0	.	2.04	.	3.93	
58A HC03004	6.94	.	.	1.76	.	2.32	.	3.32	
58A HC03005	7.78	.	.	1.42	.	2.72	.	2.83	
58A SY03009-1	3.9	0.158	0.39	.	0.277	.	5.65	.	36 mm Ø x 25 mm
58A SY03009-2	4.67	0.119	0.314	.	0.196	.	5.01	.	
58A SY03009-3	5.38	0.095	0.239	.	0.115	.	3.41	.	
58A SY03009-4	6.48	0.051	0.143	.	0.054	.	4.46	.	
58A SY03009-5	6.78	0.023	0.131	.	0.085	.	3.85	.	

## TITANIUM ALLOYS, chart 1 of 2

# = class, where 1 = CRM and 2 = RM analysis listed in mass % \* Provisional Analysis

#	Number	Al	V	C	Cr	Cu	Fe	H	N	O	Mn	Mo	Ni	Si	Sn	Zr
1	IARM 269B	7.86	1.03	(0.014)	(0.0014)	(0.0023)	0.071	0.007	(0.006)	0.090	0.0071	0.98	(0.001)	(0.025)	0.008	(0.002)
1	58A ZB03002	6.54	3.61	0.014	.	.	0.066	.	0.016	.	.	.	<0.003	0.024	.	.
1	IARM Ti64-18	6.52	4.08	(0.034)	(0.013)	.	0.19	(0.0031)	(0.025)	0.181	.	(0.004)	0.011	(0.011)	(0.003)	.
1	58A CP03005	6.46	5.1	0.01	0.02	0.0099	0.231	.	.	.	0.0064	.	.	0.031	0.001	0.018
2	CT 6AL4V	6.39	4.01	.	.	.	0.14	.	.	.	.	.	.	.	.	.
1	IARM 175D	6.39	3.99	0.008	0.014	0.002	0.23	0.0027	0.030	0.177	(0.003)	0.0030	0.016	0.008	0.007	(0.002)
1	SRM 654b	6.34	4.31	.	0.025	0.008	0.23	(0.002)	.	(0.17)	.	0.013	0.028	0.045	0.023	0.008
1	58A SY03005	6.24	4.08	0.013	.	.	0.047	.	.	.	.	.	.	0.024	.	.
1	IARM Ti64ELI-18	6.11	4.01	0.033	(0.004)	(0.002)	0.167	(0.0021)	(0.006)	0.118	(0.0014)	.	(0.003)	(0.014)	(0.022)	.
1	BCR 089	5.97	3.976	.	.	.	.	.	.	.	.	.	.	.	.	.
1	58A CP03004	5.88	1.61	0.017	0.028	0.0085	0.074	.	.	.	0.027	3.58	.	0.059	0.0085	0.024
1	IARM 178D	5.49	5.47	0.028	0.031	0.52	0.550	0.0016	0.017	0.17	(0.003)	0.10	0.067	0.053	1.84	0.026
2	AA Ti64-150	4.50	4.7	.	0.0221	0.019	0.16	.	Bi:0.0040	.	0.0148	0.0174	0.019	0.035	0.0189	0.029
1	58A CP03003	5.21	4.89	0.014	0.997	.	1.01	.	.	.	.	4.87	.	0.038	.	0.02
1	IARM Ti1023-18	3.31	9.75	(0.032)	(0.016)	(0.006)	1.98	(0.002)	(0.005)	0.109	(0.0024)	(0.003)	0.009	(0.018)	.	.
1	IARM 344A	3.15	15.3	0.011	3.09	(0.002)	0.20	(0.015)	0.005	0.107	(0.003)	0.004	0.011	(0.03)	3.09	(0.002)
1	58A SY03003	3.14	14.98	0.01	2.84	.	0.05	(0.001)	(0.02)	(0.013)	.	.	.	.	3.17	.
1	58A SY03004	3.13	2.82	0.01	.	.	0.042	(0.001)	(0.01)	(0.1)	.	.	.	.	.	.
1	SRM 1128	3.06	15.13	0.011	2.96	.	0.134	.	.	.	.	.	.	.	3.04	.
1	IARM 261E	3.05	2.51	0.012	0.016	0.0025	0.18	(0.0005)	0.006	0.084	(0.001)	0.003	0.018	0.007	0.005	(0.003)
1	IARM 261C	3.05	2.46	0.011	0.014	0.003	0.180	0.001	0.005	0.085	(0.003)	0.004	0.016	0.007	0.006	0.003
1	IARM 344B *	3.03	14.7	0.0095	2.91	(0.0024)	0.118	0.007	(0.016)	0.118	(0.003)	(0.006)	0.021	(0.03)	3.01	(0.002)
1	IARM 261D	3.02	2.50	0.011	0.016	0.0028	0.185	(0.0005)	0.0051	0.083	(0.002)	0.003	0.018	0.008	0.005	0.003
1	IARM 261A	3.00	2.48	0.007	0.013	(0.002)	0.19	0.0023	0.007	0.10	0.0011	(0.003)	0.006	0.012	0.008	(0.002)
1	IARM 261B	2.98	2.23	0.011	0.016	0.003	0.19	(0.001)	0.004	0.083	(0.003)	0.004	0.023	0.008	0.004	(0.002)

#	Number	Al	V	C	Cr	Cu	Fe	H	N	O	Mn	Mo	Ni	Si	Sn	Zr
	Number	B	Co	Nb	P	Pd	Ru	S	Ta	Ti	W	Y	Units			
	IARM 269B	<(0.001)	<(0.0005)	(0.004)	(0.003)	<(0.005)	(0.004)	(0.003)	<(0.005)	(89.9)	(0.001)	<(0.001)	31 mm Ø x 2 or 18 mm			
	58A ZB03002	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 30 mm			
	IARM Ti64-18	.	.	.	.	.	.	.	.	(89.0)	.	.	31 mm Ø x 2 or 18 mm			
	58A CP03005	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 35 mm			
	CT 6AL4V	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x ~19 mm			
	IARM 175D	(0.0008)	.	(0.008)	.	.	.	.	.	(89.2)	(0.002)	(0.001)	31 mm Ø x 2 mm last			
	SRM 654b	.	.	.	.	.	.	(0.001)	.	.	.	.	31 mm Ø x 19 mm			
	58A SY03005	.	.	.	.	.	.	.	.	.	.	.	36 mm Ø x 25 mm			
	IARM Ti64ELI-18	.	.	.	.	.	.	.	.	(89.7)	.	.	31 mm Ø x 2 or 18 mm			
	BCR 089	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm			
	58A CP03004	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 35 mm			
	IARM 178D	(0.001)	0.005	(0.01)	(0.002)	(0.003)	(0.001)	(0.001)	(0.001)	(85.8)	(0.001)	(0.001)	31 mm Ø x 2 or 18 mm			
	AA Ti64-150	0.016	0.014	0.016	Er:0.0094	0.016	0.015	HF:0.0153	0.016	Mg:(0.004)	.	0.005	~38 mm Ø x ~25 mm			
	58A CP03003	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 35 mm			
	IARM Ti1023-18	.	.	.	.	.	.	.	.	84.8	.	.	31 mm Ø x 2 or 18 mm			
	IARM 344A	0.0011	(0.001)	(0.005)	(0.002)	(0.001)	.	(0.001)	(0.001)	(74.9)	(0.003)	<0.001	31 mm Ø x 2 or 18 mm			
	58A SY03003	.	.	.	.	.	.	.	.	.	.	.	36 mm Ø x 30 mm			
	58A SY03004	.	.	.	.	.	.	.	.	.	.	<0.001	36 mm Ø x 30 mm			
	SRM 1128	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm			
	IARM 261E	0.0003	(0.0004)	(0.005)	<0.003	(0.002)	(0.001)	(0.001)	.	(94.1)	(0.001)	(0.001)	31 mm Ø x 2 or 18 mm			
	IARM 261C	0.0004	(0.005)	(0.003)	(0.003)	(0.002)	(0.001)	(0.001)	.	(94.1)	(0.001)	(0.0004)	31 mm Ø x 2 or 18 mm			
	IARM 344B *	<0.001	<0.004	(0.003)	<0.003	<0.03	<0.02	<0.003	<0.04	(76.0)	<0.03	<0.006	31 mm Ø x 2 or 18 mm			
	IARM 261D	0.0003	<0.001	(0.003)	<0.004	(0.002)	(0.0005)	(0.001)	(0.0005)	(94.2)	(0.001)	(0.0005)	31 mm Ø x 2 or 18 mm			
	IARM 261A	.	.	.	.	.	.	(0.001)	.	.	.	.	31 mm Ø x 2 mm			
	IARM 261B	0.0004	<0.004	(0.002)	(0.004)	.	(0.001)	(0.0004)	.	(94.4)	(0.003)	(0.0004)	31 mm Ø x 2 or 18 mm			

TITANIUM ALLOYS, chart 2 of 2

# = class, where 1 = CRM and 2 = RM analysis listed in mass % \* Provisional Analysis

Table with columns: #, Number, Al, V, C, Cr, Fe, H, Mn, Mo, N, Nb, O, Si, Sn, Ti, Zr. Rows include SRM 2062, 58A SY03008-6, 58A SY03001-6, 58A SY03008-5, 58A SY03008-4, 58A SY03001-5, 58A ZB03001, 58A SY03008-3, IARM 300E \*, 58A SY03007, IARM Ti6242-18, IARM 300B, IARM 300D, IARM 336B, 58A SY03001-4, 58A SY03002, IARM 300C, IARM 300A, IARM 336A, 58A SY03008-2, 58A SY03001-3, IARM 271A, IARM 271B, IARM 345A, 58A SY03001-2, 58A SY03001-1, 58A SY03008-1, IARM 280A, IARM 367A, BS T-81 17025, BS T-4A 17025, BS T-22, BS T-24, BCR 090A, SRM 643, SRM 642, SRM 641.

Table with columns: #, Number, Al, V, C, Cr, Fe, H, Mn, Mo, N, Nb, O, Si, Sn, Ti, Zr. Rows include SRM 2062, 58A SY03008-6, 58A SY03001-6, 58A SY03008-5, 58A SY03008-4, 58A SY03001-5, 58A ZB03001, 58A SY03008-3, IARM 300E \*, 58A SY03007, IARM Ti6242-18, IARM 300B, IARM 300D, IARM 336B, 58A SY03001-4, 58A SY03002, IARM 300C, IARM 300A, IARM 336A, 58A SY03008-2, 58A SY03001-3, IARM 271A, IARM 271B, IARM 345A, 58A SY03001-2, 58A SY03001-1, 58A SY03008-1, IARM 280A, IARM 367A, BS T-81 17025, BS T-4A 17025, BS T-22, BS T-24, BCR 090A, SRM 643, SRM 642, SRM 641.

Table with columns: Number, B, Co, Cu, Mg, Ni, P, Pb, Pd, Ru, S, Sb, Ta, W, Y, Units. Rows include SRM 2062, 58A SY03008-6, 58A SY03001-6, 58A SY03008-5, 58A SY03008-4, 58A SY03001-5, 58A ZB03001, 58A SY03008-3, IARM 300E \*, 58A SY03007, IARM Ti6242-18, IARM 300C, IARM 300D, IARM 336B, 58A SY03001-4, 58A SY03002, IARM 300C, IARM 300A, IARM 336A, IARM 337A, 58A SY03008-2, 58A SY03001-3, IARM 271A, IARM 271B, IARM 345A, 58A SY03001-2, 58A SY03001-1, 58A SY03008-1, IARM 280A, IARM 367A, BS T-81 17025, BS T-4A 17025, BS T-22, BS T-24, BCR 090A, SRM 643, SRM 642, SRM 641.

Table with columns: Number, B, Co, Cu, Mg, Ni, P, Pb, Pd, Ru, S, Sb, Ta, W, Y, Units. Rows include SRM 2062, 58A SY03008-6, 58A SY03001-6, 58A SY03008-5, 58A SY03008-4, 58A SY03001-5, 58A ZB03001, 58A SY03008-3, IARM 300E \*, 58A SY03007, IARM Ti6242-18, IARM 300C, IARM 300D, IARM 336B, 58A SY03001-4, 58A SY03002, IARM 300C, IARM 300A, IARM 336A, IARM 337A, 58A SY03008-2, 58A SY03001-3, IARM 271A, IARM 271B, IARM 345A, 58A SY03001-2, 58A SY03001-1, 58A SY03008-1, IARM 280A, IARM 367A, BS T-81 17025, BS T-4A 17025, BS T-22, BS T-24, BCR 090A, SRM 643, SRM 642, SRM 641.

## ZINC

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

#	Number	Pb	Al	Cd	Cu	Fe	In	Mg	Mn	Ni	Sb	Sn	Tl
1	41X Z6A	0.031	0.0096	0.0093	0.0088	(0.002)	0.0228	<0.0005	0.0002	0.0002	.	0.0038	.
1	41X Z5N	0.0286	0.0243	0.0165	0.0109	0.0262	0.0057	0.0107	0.0049	0.0051	0.0054	0.0063	0.0068
1	ERM-EB325	0.0142	.	0.00947	0.00475	0.00561	.	.	.	.	.	0.00461	0.00368
1	41X Z11A	0.0077	0.0261	0.0155	0.0116	0.0019	0.0345	.	.	.	0.0026	0.0072	(0.0010)
1	41X Z4L	0.00584	0.0065	0.00437	0.00326	0.0148	0.00304	0.00331	0.00286	0.00320	0.00340	0.00221	0.00277
1	41X Z3M	0.00502	0.00158	0.00327	0.00345	0.00605	0.00233	(0.00034)	0.00524	0.00209	0.00167	0.00297	0.00210
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 Z1Q	0.00276	(0.00011)	0.00120	0.00116	0.00282	0.00026	(0.00010)	0.00047	0.00014	(0.00024)	0.00051	0.00028
1	ERM-EB324	0.00261	.	0.00489	0.000987	0.00585	.	.	.	.	.	0.00098	0.00199
2	BCS 194e	0.002	.	.	.	0.001	.	.	.	.	.	.	.
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	Zn	Melt °C	Units
41X Z6A	.	0.0122	(0.0001)	.	.	.	.	.	.	50 mm Ø x 20 mm
41X Z5N	.	0.0056	.	.	.	0.0050	.	.	.	~50 mm Ø x 20 mm
ERM-EB325	.	.	.	.	.	.	.	.	.	60 mm Ø x 30 mm
41X Z11A	.	0.0189	.	.	.	(0.0009)	.	.	.	50 mm Ø x 20 mm
41X Z4L	.	0.00319	.	.	.	0.0025	.	.	.	50 mm Ø x 20 mm
41X Z3M	.	0.00315	.	.	.	0.00289	.	.	.	~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 last of stock
41X Z1Q	.	0.00030	.	.	.	0.00034	.	.	.	~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)
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	(0.0002)	(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 ZINC SETS

available in sets only, as grouped

Number	Al	Cd	Cu	Fe	Pb	Sn	Ti	Zn	Units
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	
IMN ZL 1	0.0190	0.0365	0.342	0.00072	0.00498	0.0364	0.00745	Rem	Discs 40 mm Ø x 25 mm
IMN ZL 2	0.0119	0.0241	0.573	0.0174	0.00923	0.0420	0.114	Rem	
IMN ZL 3	0.00388	0.00492	0.201	0.00496	0.0247	0.00788	0.238	Rem	
IMN ZL 4	0.0497	0.0115	0.114	0.00879	0.0351	0.0114	0.394	Rem	
IMN ZL 5	0.0518	0.00085	0.0115	0.0299	0.0363	0.0011	0.598	Rem	

## CRM ZINC RoHS MONITOR

cast 50 mm Ø x 20 mm

Number	Cd	Cr	Hg	Pb
41X ZSC6A	0.215	<0.0002	0.029	0.0077
41X ZSC3A	0.119	0.0148	0.0021	0.0273
41X ZSC1A	0.0288	0.0039	0.026	0.0621
41X ZSC4A	0.0131	0.0299	0.050	0.156
41X ZSC2A	0.0016	0.0036	0.0053	0.111

**CRM ZAMAK (MAZAK) SPECIFICATIONS AND SUGGESTED SAMPLES**

42X, 43X: ~50 mm Ø x ~15-20 mm BAM: 39 mm Ø x 39 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
<b>Zamak 2</b>	<b>3.9-4.3</b>	<b>2.6-2.9</b>	<b>0.025-0.05</b>	.	<b>&lt;0.003</b>	.	<b>&lt;0.075</b>	.	<b>&lt;0.004</b>	<b>&lt;0.002</b>
43X Z7A	3.68	<b>3.14</b>	0.062	0.0005	0.00092	0.0003	0.029	0.0025	0.0058	0.0031
43X Z6B	4.51	<b>2.85</b>	0.0238	0.0027	0.0031	0.0005	0.024	0.0022	0.004	0.0052
43X Z4C	4.79	<b>2.69</b>	0.0480	0.0258	0.0033	.	0.0017	0.0153	0.0062	0.0030
<b>Zamak 5</b>	<b>3.9-4.3</b>	<b>0.75-1.25</b>	<b>0.030-0.06</b>	.	<b>&lt;0.003</b>	.	<b>&lt;0.075</b>	.	<b>&lt;0.004</b>	<b>&lt;0.002</b>
<b>Zamak 6</b>	<b>3.9-4.3</b>	<b>0.75-1.25</b>	<b>&lt;0.05</b>	.	<b>&lt;0.003</b>	.	<b>&lt;0.075</b>	.	<b>&lt;0.004</b>	<b>&lt;0.002</b>
43X Z3M	3.40	<b>1.499</b>	0.114	0.0062	0.0109	0.0046	(0.042)	0.0013	0.0077	0.0058
BCR 360	3.427	<b>1.234</b>	0.0705	0.0267	0.00595	.	.	.	0.00739	0.00330
43X Z2P	4.07	<b>1.019</b>	0.0614	0.0100	0.0031	.	0.0013	0.0162	0.0048	0.0033
SRM 630	4.30	<b>0.976</b>	0.030	0.0027	0.0048	0.0031	0.023	0.0106	0.0083	0.0040
ERM-EB602	4.08	<b>0.812</b>	0.0415	0.00025	0.00011	.	0.00073	.	0.00195	0.00010
BCR 361	4.068	<b>0.798</b>	.	.	(0.000080)	.	0.001034	.	0.000531	0.00463
43X Z1K	4.50	<b>0.717</b>	0.0256	0.0010	0.0014	0.0007	0.0070	0.0014	0.0038	0.0019
SRM 628	4.59	<b>0.611</b>	0.0094	0.030	0.0040	0.0087	0.066	0.0091	0.0045	0.0017
BCR 357	4.227	<b>0.5849</b>	0.0273	0.000982	0.000283	.	0.00257	.	0.00138	0.000351
43X Z1J	4.50	<b>0.501</b>	0.0145	0.0010	0.00037	0.0009	0.0058	0.0005	0.0017	(0.0007)
<b>Zamak 3</b>	<b>3.9-4.3</b>	<b>&lt;0.10</b>	<b>0.025-0.05</b>	.	<b>&lt;0.003</b>	.	<b>&lt;0.075</b>	.	<b>&lt;0.004</b>	<b>&lt;0.002</b>
<b>Zamak 7</b>	<b>3.9-4.3</b>	<b>&lt;0.10</b>	<b>0.010-0.020</b>	<b>0.005-0.02</b>	<b>&lt;0.002</b>	.	<b>&lt;0.075</b>	.	<b>&lt;0.002</b>	<b>&lt;0.001</b>
BCR 356	4.434	<b>0.3944</b>	0.01323	0.000343	0.000073	.	0.00315	.	0.000987	(0.000032)
42X Z6B	3.67	<b>0.238</b>	0.177	0.00030	0.0039	0.0034	0.008	0.0157	0.0093	0.0057
42X Z12A	4.717	<b>0.156</b>	0.0488	0.0413	0.00277	0.00063	0.0457	0.0483	0.0079	0.0022
42X Z3J	3.84	<b>0.135</b>	0.0503	0.0071	0.0065	.	0.0145	0.0090	0.0068	0.0048
SRM 627	3.88	<b>0.132</b>	0.031	0.0029	0.0051	0.0038	0.023	0.014	0.0082	0.0042
42X Z5M	4.33	<b>0.111</b>	0.0508	0.041	0.0013	(0.0002)	(0.05)	0.0049	0.0030	0.0012
BCR 355	3.443	<b>0.1035</b>	0.0786	0.0268	0.00581	.	0.0017	.	0.00569	0.00291
42X Z4J	3.55	<b>0.063</b>	0.058	0.0177	0.0076	.	0.012	0.0077	0.0113	0.0060
SRM 626	3.56	<b>0.056</b>	0.020	0.047	0.0016	0.0395	0.103	0.048	0.0022	0.0012
SRM 625	3.06	<b>0.034</b>	0.070	0.0184	0.0007	0.0128	0.036	0.031	0.0014	0.0006
BCR 354	3.726	<b>0.03123</b>	0.0602	0.00831	0.00297	.	.	.	0.00308	0.00141
42X Z2K	3.79	<b>0.0300</b>	0.0146	0.0155	0.0017	(0.0001)	0.0055	0.0274	0.0029	0.0011
BCR 352	4.150	<b>0.003126</b>	0.02830	0.000674	0.000288	.	.	.	(0.00064)	0.00030
BCR 351	4.355	<b>0.001213</b>	0.01310	(0.00019)	(0.00021)	.	.	.	0.000450	<0.0001
<b>Zamak 8</b>	<b>7.8-9.0</b>	<b>0.70-1.40</b>	<b>0.015-0.030</b>	<b>&lt;0.02</b>	<b>&lt;0.005</b>	.	<b>&lt;0.1</b>	.	<b>&lt;0.005</b>	<b>&lt;0.003</b>
43X Z14F	7.98	<b>1.238</b>	0.0123	0.0058	0.00567	0.0037	0.0025	(0.0003)	0.0019	0.0005

Number	Be	Bi	Ce	In	La	Sb	Si	Ti	Tl
<b>Zamak 2</b>	.	.	.	.	.	.	.	.	.
43X Z7A	0.0194	(0.0009)	.	.	.	0.0016	.	0.067	.
43X Z6B	.	0.0054	.	.	.	0.0044	.	.	.
43X Z4C	.	0.0113	.	.	.	(0.0023)	(0.0012)	.	.
<b>Zamak 5</b>	.	.	.	.	.	.	.	.	.
<b>Zamak 6</b>	.	.	.	.	.	.	.	.	.
43X Z3M	.	0.0092	.	.	.	0.0029	.	.	.
BCR 360	.	.	.	0.00298	.	.	.	.	0.00259
43X Z2P Ag:0.0098	.	0.0038	.	.	.	0.0012	.	.	.
SRM 630	.	.	.	.	.	.	0.022	.	.
ERM-EB602	.	.	.	.	.	.	0.00114	0.00048	.
BCR 361	.	.	.	(0.00002)	.	.	.	.	0.00374
43X Z1K	.	0.0015	.	.	.	0.0007	.	.	.
SRM 628	.	.	.	.	.	.	0.008	.	.
BCR 357	.	.	.	0.000330	.	.	.	.	0.000276
43X Z1J	.	0.0031	.	.	.	0.0016	(0.0037)	0.0014	.
<b>Zamak 3</b>	.	.	.	.	.	.	.	.	.
<b>Zamak 7</b>	.	.	.	.	.	.	.	.	.
BCR 356	.	.	.	<0.00002	.	.	.	.	0.000079
42X Z6B	.	.	(0.012)	0.00191	(0.011)	0.0169	(0.010)	.	0.0021
42X Z12A	.	.	0.0116	0.0068	0.0084	0.0070	.	.	0.0076
42X Z3J	.	.	0.0032	.	0.0013	0.0006	(0.0018)	.	.
SRM 627	.	.	.	.	.	.	0.021	.	.
42X Z5M	.	.	0.0328	.	0.0026	.	.	0.0017	.
BCR 355	.	.	.	0.00246	.	.	.	.	0.002325
42X Z4J	.	.	0.020	0.0016	0.020	(0.0029)	.	.	(0.0025)
SRM 626	.	.	.	.	.	.	0.042	.	.
SRM 625	.	.	.	.	.	.	0.017	.	.
BCR 354	.	.	.	0.00098	0.0150	0.0010	0.0011	.	0.001101
42X Z2K	.	.	0.0055	0.0047	.	.	.	.	.
BCR 352	.	.	.	0.000302	.	.	.	.	0.00032
BCR 351	.	.	.	<0.00002	.	.	.	.	0.000074
<b>Zamak 8</b>	.	.	.	.	.	.	<b>&lt;0.03</b>	.	.
43X Z14F	.	0.0106	.	.	.	0.0105	(0.001)	(0.0001)	.

**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	4.00	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 in mass % cast

#	Number	Al	Mn	Pb	Sb	Units
1	SRM 1742	0.7917	.	(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 1738	0.1014	.	0.0101	.	50 mm Ø x 12 mm
2	41X ZMg1A	.	.	.	.	40 mm Ø x 15 mm
1	41X ZMn1A	.	1.07	.	.	50 mm Ø x 20 mm
2	41X ZSb1A	.	.	.	1.03	40 mm Ø x 15 mm
2	41X ZSb4A	.	.	.	3.78	40 mm Ø x 15 mm
2	41X ZSb8A	.	.	.	7.68	40 mm Ø x 15 mm

**RM ZINC - ALUMINUM - ANTIMONY ALLOYS**

cast some Sb segregation in below series, last of stock 40 mm Ø x 15 mm

Number	Al	Sb	Bi	Cd	Cu	Fe	Mg	Pb	Sn
44X Z5A	20.4	5.2	0.004	0.001	0.001	0.010	<0.001	0.010	0.003
44X Z4A	20.3	6.7	0.016	0.011	0.007	0.011	0.008	0.032	0.018

**CRM ZINC ALLOY SETS**

available in SETS ONLY, as grouped

~40 mm Ø x ~25 mm

Number	Al	Bi	Cd	Cu	Fe	Mg	Mn	Ni	Pb	Sb	Sn	Ti	Zn
IMN ZK 1	11.789	0.200	0.0021	1.538	.	0.0009	.	.	0.0031	0.127	0.00085	.	.
IMN ZK 2	10.572	0.169	0.0031	3.119	.	0.0040	0.0137	.	0.0121	0.102	0.0015	.	.
IMN ZK 3	9.767	0.102	0.0071	3.996	.	0.0307	.	.	0.0226	0.0674	0.00267	.	.
IMN ZK 4	8.371	0.0188	0.0121	5.487	.	0.0640	.	.	0.0334	0.0121	0.00491	.	.
IMN ZK 5	6.476	0.0020	0.0207	6.663	.	0.0410	0.589	.	0.0507	0.0025	0.0065	.	.
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

CRM														
ZINC ALLOYS, chart 1 of 2														
X: ~50 mm Ø x ~15-20 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 Z23E	30.7	.	0.0042	0.0147	3.22	0.055	0.0242	0.0090	0.0236	0.0112	.	0.077	0.0115	0.0045
CAN NZA-1	28.70	.	0.00098	.	1.51	0.046	0.020	.	.	0.0030	.	.	0.0069	.
43X Z22D	27.4	.	0.0043	0.0010	2.11	0.068	0.0099	0.0057	0.0101	0.0053	.	0.019	0.0020	0.0073
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	.
43X Z21D	23.9	.	0.0010	.	2.68	0.0067	0.0142	0.0022	0.0021	0.0087	.	0.0191	0.0007	.
CAN NZA-2	23.81	.	0.0047	.	3.00	0.021	0.029	.	.	0.0076	.	.	0.0045	.
43X GALF5A	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	.
42X Z16A	12.28	.	0.0045	0.0007	0.235	0.033	0.105	0.0028	0.0039	0.0090	.	0.011	0.0034	.
43X Z11F	11.12	0.0046	0.0175	(0.0003)	0.335	0.015	0.0357	0.0032	0.0014	0.0202	0.0009	0.0013	0.0145	.
CAN NZA-5	10.85	.	0.0095	.	1.04	(0.016)	0.021	.	.	0.0012	.	.	0.0017	.
43X GALF4A	10.71	.	0.0108	.	2.470	0.074	0.0062	.	.	0.0122	.	.	0.0110	.
43X Z12E	10.38	0.0021	0.0045	0.0008	0.791	0.037	0.0287	0.0026	0.0033	0.0041	0.0032	(0.002)	0.0017	0.0050
42X Z15A	9.99	.	0.0023	0.0003	0.0028	0.026	0.0026	0.0037	0.0017	0.0074	0.0006	.	0.0006	.
43X Z13E	9.01	0.0014	0.0072	0.0004	1.113	0.0045	0.0198	0.0025	0.0036	0.0086	0.0020	(0.0012)	0.0035	.
43X GALF3A	8.37	.	0.0018	.	0.507	0.018	0.0099	.	.	0.0032	.	.	0.0025	.
CAN NZA-6	7.54	.	0.0147	.	3.17	(0.0105)	0.00037	.	.	0.0809	.	.	0.0051	.
43X Z15C	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 Z8A	7.03	.	0.0003	(0.0002)	0.0215	.	0.0033	0.0014	0.0019	0.0025	.	0.013	(0.0023)	(0.0001)
42X Z9A	5.58	.	0.0054	.	0.0070	.	0.0464	0.0006	(0.0003)	0.0021	.	(0.004)	(0.00035)	0.020
43X GALF2A	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	.
42X Z10A *	4.90	.	0.0032	.	0.31	0.0008	0.0021	0.018	0.010	0.006	<0.001	.	0.0035	.
43X GALF1A	4.68	.	0.0499	.	4.39	0.061	0.0999	.	.	0.0505	.	.	0.0514	.
42X Z7B	4.39	.	0.030	(0.0001)	0.0249	0.027	0.0095	0.0045	0.0067	0.0097	.	0.006	0.012	.
42X Z7C	4.39	.	0.030	(0.0001)	0.0249	0.027	0.0095	0.0045	0.0067	0.0097	.	0.006	0.012	(0.0001)
43X SC4A	4.35	.	0.0058	0.009	1.122	0.022	0.093	0.044	0.0249	0.0064	.	0.022	0.0056	.
43X Z10A	3.99	.	0.0014	0.00027	2.97	0.007	0.0403	0.0050	0.0036	0.0046	.	0.009	0.0012	.
43X SC1A	3.75	.	0.0011	0.0082	1.903	0.073	0.740	0.0201	0.0161	0.0150	.	0.022	0.0082	.
43X SC2A	3.41	.	0.0018	0.023	4.80	0.046	0.498	0.0183	0.0096	0.0097	.	0.0133	0.0031	.
42X Z11A	3.19	.	0.0020	0.0016	0.093	(0.036)	0.0329	0.0196	0.0241	0.0058	0.0047	.	0.0017	.
43X Z9A	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 Z5B	3.164	0.0148	0.0030	.	5.92	0.10	0.0144	0.0061	0.0056	0.0029	0.065	.	(0.0004)	.
43X SC3A	3.14	.	0.0028	0.0108	3.03	0.018	0.257	0.0337	0.0261	0.0066	.	0.022	0.0078	.
43X Z8A	2.51	.	0.00090	0.00024	0.481	(0.0017)	0.00155	0.00021	0.00033	0.0027	.	.	(0.0005)	.
41X 0336 Zn2N	1.000	0.0043	0.147	.	0.216	0.0283	0.0568	0.0227	0.0047	0.492	0.0019	.	0.0547	.
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 Z23E	.	.	.	.	.	.	.	.						
CAN NZA-1	.	.	.	.	.	.	.	.						
43X Z22D	.	.	.	.	.	.	.	.						
CAN NZA-4	.	.	.	.	.	.	.	.						
CAN NZA-3	.	.	.	.	.	.	.	.						
43X Z21D	.	(0.0004)	.	.	.	.	.	.						
CAN NZA-2	.	.	.	.	.	.	.	.						
43X GALF5A	.	.	.	0.0041	.	0.0019	.	.						
CAN NZA-7	.	.	.	.	.	.	.	.						
42X Z16A	.	.	.	.	0.0051	.	(0.003)	.						
43X Z11F	.	.	.	.	.	.	.	.						
CAN NZA-5	.	.	.	.	.	.	.	.						
43X GALF4A	.	.	.	0.079	.	0.041	.	.						
43X Z12E	.	.	.	.	.	.	.	.						
42X Z15A	.	.	.	.	0.0024	.	.	.						
43X Z13E	.	.	.	.	.	.	.	.						
43X GALF3A	.	.	.	0.0152	.	0.0076	.	.						
CAN NZA-6	.	.	.	.	.	.	.	.						
43X Z15C	.	.	.	.	.	.	.	.						
42X Z8A	.	.	.	0.0081	.	0.0079	.	.						
42X Z9A	.	.	.	0.0047	.	0.0044	.	0.011						
43X GALF2A	.	.	.	0.0318	.	0.0158	.	.						
SRM 629	.	.	.	.	.	.	.	.						
42X Z10A *	.	* Provisional Analysis	.	.	0.0022	.	<0.001	.						
43X GALF1A	.	.	.	0.0569	.	0.0284	.	.						
42X Z7B	.	.	.	0.072	.	0.061	.	last						
42X Z7C	.	.	.	0.09	.	0.08	.	.						
43X SC4A	.	.	.	.	.	.	.	.						
43X Z10A	.	.	.	.	.	.	.	.						
43X ZSC1A	.	.	.	.	.	.	.	.						
43X SC2A	.	.	.	.	.	.	.	.						
42X Z11A	.	.	.	0.0014	0.0037	(0.0009)	0.0047	.						
43X Z9A	.	.	.	.	.	.	.	.						
43X Z5B	0.0254	(0.0005)	.	.	.	.	.	.						
43X ZSC3A	.	.	.	.	.	.	.	.						
43X Z8	.	.	.	.	.	.	.	.						
41X 0336 Zn2N	0.0131	.	.	.	.	.	0.0016	.						
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: ~45--50 mm Ø x ~20 mm

Number	Al	Bi	Cd	Cr	Cu	Fe	Mg	Mn	Ni	Pb	Sb	Si	Sn	Ti
41X GLV10A	0.969	0.0031	0.0030	.	0.0073	0.0051	0.0040	0.0062	0.0022	0.0066	0.0009	.	0.0062	.
41X GLV9A	0.547	0.0019	0.0028	.	0.0037	0.0039	0.0014	0.0027	0.0009	0.0043	0.0048	.	0.0028	.
41X GLV4E	0.503	0.0047	0.0013	0.00104	0.0246	(0.01)	0.0025	0.164	0.0078	0.0058	0.0235	.	0.0035	.
41X GLV11A	0.463	0.0009	0.0010	.	0.0017	0.0027	0.0009	0.0008	0.0008	0.0057	0.168	.	0.0009	.
41X 4380 Zn4D	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 GLV6B	0.441	0.0254	0.0051	0.0007	0.0371	0.0020	.	0.00235	0.0007	0.097	0.0122	.	0.0155	.
41X GLV7A	0.399	(0.0108)	0.00056	0.0010	0.023	.	.	0.0025	0.0060	0.082	0.0031	.	(0.0006)	.
41X 0336 Zn3K	0.336	.	0.341	.	0.353	0.0456	0.147	0.0106	0.0022	0.0282	.	.	0.127	.
41X GLV3C	0.326	0.0031	0.0183	0.0003	0.0332	0.0014	0.0014	0.0185	0.0335	0.0249	0.0555	.	0.0031	.
41X 4380 Zn9A	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 GLV1E	0.285	0.0045	0.0087	.	0.0188	(0.0008)	0.0021	.	0.0021	0.0175	0.0016	.	0.0049	.
41X CGLF	0.28	.	(0.0015)	.	(0.0005)	.	.	.	.	0.046	.	.	(0.001)	.
41X 4380 Zn7D	0.277	.	0.0156	.	0.0133	0.0018	0.0029	0.0036	0.0120	1.18	0.086	.	0.0036	0.0065
41X GLV8A	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 GLV8B	0.258	0.0006	0.0004	(0.0001)	0.0111	0.0080	0.0009	0.0035	0.0023	0.0039	0.0062	.	0.0005	.
41X 4380 Zn8D	0.232	0.0156	0.0097	(0.0001)	0.0208	0.0074	0.0054	0.0081	0.0445	0.700	0.0151	.	0.0177	0.0020
41X GLV2C	0.0905	0.0158	0.0037	0.0015	0.0057	0.155	0.0006	0.0218	0.0053	0.0248	0.0049	.	0.0097	.
41X 2951 Zn3A	0.078	.	0.0062	0.184	1.89	.	0.0164	0.0018	0.0010	0.0065	.	.	(0.006)	0.133
41X GLV2A	0.068	0.017	0.0025	.	0.0052	0.048	.	.	0.0070	0.214	0.006	.	0.003	.
41X ZNiBiA	0.050	0.502	0.0020	.	0.0132	0.0133	.	.	2.02	0.0187	.	.	0.154	.
41X 4380 Zn1D	0.039	0.0021	0.394	0.0007	0.178	0.0276	0.0032	0.0006	0.0058	0.0618	0.0019	.	0.0510	0.0004
41X 0336 Zn5A	0.035	(0.001)	0.056	.	0.023	.	<0.0005	(0.0001)	(0.0005)	0.91	0.008	.	0.21	.
41X 2951 Zn2A	0.032	.	0.0037	0.142	1.37	.	0.0123	0.0011	0.0027	0.0040	.	.	(0.0015)	0.209
41X 2951 Zn1A	0.029	.	0.0005	0.083	0.79	.	0.0029	0.0013	0.0038	0.0042	.	.	(0.0007)	0.278
41X 4380 Zn6D	0.0260	0.0047	0.0466	0.0064	0.0327	0.0307	0.0044	0.200	0.0073	0.427	(0.002)	.	0.101	0.0029
41X 4380 Zn5C	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 Zn3C	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 Zn1L	0.0177	.	0.0067	.	0.0088	0.0106	0.0062	0.0102	0.0009	1.007	.	.	0.0051	.
41X 4380 Zn2C	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 GLV5B	0.0139	0.0098	0.0136	.	0.0103	0.0443	0.0014	.	0.0025	0.0166	0.148	.	0.0172	.
41X ZNi2A	0.0135	0.0050	0.0010	.	0.0056	0.0061	.	.	1.97	0.0172	.	.	0.141	.
41X 4380 Zn10A	0.0004	.	0.0007	0.117	0.0022	0.49	0.184	.	0.063	0.0043	0.0005	.	0.0014	.

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

Number	Ag	As	Co	In	Tl
--------	----	----	----	----	----

41X GLV10A	.	.	0.0002	.	.
41X GLV9A	.	.	0.0005	.	.
41X GLV4E	.	0.0002	0.0061	.	.
41X GLV11A	.	.	(0.0001)	.	Sr: (0.0004)
41X 4380 Zn4D	.	.	0.0018	.	.
41X GLV6B	.	.	0.0061	.	V: <0.0005
41X GLV7A	.	0.0016	.	.	.
41X 0336 Zn3K	.	0.0003	.	.	.
41X GLV3C	.	0.0036	0.0034	.	.
41X 4380 Zn9A	.	.	.	.	.
41X GLV1E	.	(0.0004)	0.0008	.	.
41X CGLF	.	.	(0.001)	(0.001)	last of stock
41X 4380 Zn7D	.	.	.	.	.
41X GLV8A	.	.	.	.	.
41X GLV8B	.	.	.	.	.
41X 4380 Zn8D	0.0140	.	.	.	.
41X GLV2C	.	0.0017	0.0055	.	.
41X 2951 Zn3A	.	.	.	.	.
41X GLV2A	.	<0.001	.	.	last of stock
41X ZNiBiA	.	.	.	.	.
41X 4380 Zn1D	0.0012	.	.	.	.
41X 0336 Zn5A	.	.	.	.	.
41X 2951 Zn2A	.	.	.	.	.
41X 2951 Zn1A	.	.	.	.	.
41X 4380 Zn6D	0.0030	.	0.0091	.	.
41X 4380 Zn5C	.	.	.	.	.
41X 4380 Zn3C	.	.	.	.	.
41X 0336 Zn1L	.	0.0008	.	.	.
41X 4380 Zn2C	.	.	.	.	.
41X GLV5B	.	0.00044	0.0011	.	.
41X ZNi2A	.	.	.	.	.
41X 4380 Zn10A	.	.	.	.	.

Number	Ag	As	Co	In	Tl
--------	----	----	----	----	----

## CRM ZIRCONIUM ALLOYS

analysis listed in mass %

31 mm Ø x 2 or 18 mm

Number	Al	C	Cr	Cu	Fe	H	Hf	N	Nb	O	Sn	Ti
IARM Zr702-18	0.014	0.017	(0.009)	.	(0.09)	(0.0011)	0.84	(0.003)	.	0.141	(0.04)	(0.004)
IARM Zr705-18	.	0.009	0.007	(0.007)	{0.08}	{0.0012}	0.38	{0.005}	2.53	0.133	.	.