

# 4. Zinc Base

4.1 Residuals in Pure Zinc																Typical	Size (mm)	
	Pb	Mg	Al	Cd	Fe	Sn	Cu	Ni	Mn	In	Tl	Bi	Sb	Ti	Alloy Type	Ø	H	
CRM 41 X Z1M	0.0018	0.00025	...	0.00005	0.0005	<0.0002	0.0005	0.0001	0.00017	<0.0005	...	...	...	...		50 x 20	c	
CRM 41 X Z2L	0.0036	0.0064	0.017	0.0017	0.0028	0.0017	0.016	0.0014	0.0017	(0.0002)	(0.0023)	...	(0.0011)	(0.0005)		50 x 20		
CRM 41 X Z3K	0.0052	0.0009	0.0081	0.0044	0.002	0.0039	0.0019	0.0031	0.0007	0.0007	(0.0025)	...	0.0037	0.0012	BS 3436	50 x 20		
CRM 41 X Z4K	0.0091	0.0019	0.0096	0.0066	0.003	0.0070	0.0047	0.0069	0.0012	0.0015	(0.0037)	...	0.005	<0.0005		50 x 20		
CRM 41 X Z5M	0.0280	0.0105	0.041	0.032	0.011	0.031	0.031	0.0005	0.014	0.0055	0.0005	...	0.009	0.0005		50 x 20		
CRM 41 X Z6A	0.031	<0.0005	0.0096	0.0093	(0.002)	0.0038	0.0088	0.0002	0.0002	0.0228	0.0004	0.0122	...	...		50 x 20		
CRM 41 PN ZE1	0.018	...	0.012	0.0019	0.020	0.0018	0.011	...	...	...	...	...	...	...		40 x 25		
CRM 41 PN ZE2	0.0078	...	0.0035	0.0031	0.0052	0.0074	...	...	...	...	...	...	...	...		each		
CRM 41 PN ZE3	0.0052	...	0.025	0.0050	...	0.015	0.0032	...	...	...	...	...	...	...				
CRM 41 PN ZE4	0.0012	...	...	0.00023	...	0.0017	0.013	...	...	...	...	...	...	...			Set only	
CRM 41 PN ZE5	0.0004	...	0.0011	0.0060	0.011	0.00045	0.0049	...	...	...	...	...	...	...				
CRM 41 F 321	0.00047	...	<0.0001	...	...	<0.0005	...	...	...	<0.00002	0.00008	...	...	...		80 x 20		
CRM 41 F 322 R	0.00150	...	...	0.00151	0.00191	0.00056	0.000589	...	...	...	0.00053	...	...	...		60 x 30		
CRM 41 F 323 R	0.00486	...	...	0.00065	0.00113	0.00187	0.00189	...	...	...	0.00108	...	...	...		60 x 30		
CRM 41 F 324 R	0.00261	...	...	0.00486	0.00585	0.00098	0.000987	...	...	...	0.00199	...	...	...		60 x 30		
CRM 41 F 325 R	0.0142	...	...	0.00947	0.00561	0.00461	0.00475	...	...	...	0.00368	...	...	...		60 x 30		
CRM 41 F 326	0.0307	...	...	0.0203	0.0265	...	0.0105	...	...	...	...	...	...	...		80 x 20		
CRM 41 F 327	0.0409	...	<0.0001	0.0301	0.0144	...	...	...	...	...	...	...	...	...		80 x 20		
41 CM 4320-1	0.00044	...	...	0.00045	0.00043	0.00022	0.000058	...	...	...	...	...	...	...		28 x 20		
41 CM 4320-2	0.0015	...	...	0.0011	0.0013	0.00042	0.00018	...	...	...	...	...	...	...		each		
41 CM 4320-3	0.0030	...	...	0.0031	0.0033	0.00071	0.00047	...	...	...	...	...	...	...			set only	
41 CM 4320-4	0.0082	...	...	0.0079	0.0065	0.0012	0.00099	...	...	...	...	...	...	...				
41 CM 4320-5	0.021	...	...	0.020	0.011	0.0019	0.0020	...	...	...	...	...	...	...				
41 A 194e	0.002	...	...	...	0.001	<0.001	<0.0005	...	...	...	...	...	...	...	Zn 99.99		300g block	
4.1.1 Zinc with Impurities																	Size (mm)	
	Pb	Mg	Al	Cd	Fe	Sn	Cu	Mn	Ni	Sb	Bi	In	Tl	Ag	As	Ø	H	
CRM 41 X 0336Zn1K	0.95	0.0049	0.014	0.0056	0.0124	0.0053	0.0070	0.0035	...	...	...	...	...	...	...	50 x 20	c	
CRM 41 X 0336Zn2K	0.46	0.033	0.99	0.171	0.12	0.040	0.196	0.014	0.005	...	...	...	...	...	...	50 x 20		
CRM 41 X 0336Zn3J	0.019	0.134	0.43	0.341	0.27	0.111	0.36	0.0058	...	...	...	...	...	...	...	50 x 20		
CRM 41 X 0336Zn4B	2.87	0.179	1.39	0.638	(0.018)	2.38	0.874	0.038	0.0074	0.048	0.027	0.0035	(0.004)	0.0023	0.0005	50 x 20		
CRM 41 X 0336Zn5A	0.91	<0.0005	0.035	0.056	0.016	0.21	0.023	(0.0001)	(0.0005)	0.008	(0.001)	...	...	...	...	50 x 20		
CRM 41 X 0336Zn6A	1.82	0.0008	0.105	0.0140	0.08	0.0023	0.0203	0.0010	0.0018	0.234	0.123	0.0123	0.0132	0.0055	0.0020	50 x 20		
	Pb	Mg	Al	Cd	Fe	Sn	Cu	Mn	Ni	Ti	Cr	Ce	La	Sb	Bi	Si	Size (mm)	
	Ø	H																
CRM 41 X 4380Zn1C	0.068	0.0011	0.055	0.376	0.01	0.049	0.175	0.0015	0.0029	(0.001)	0.002	...	...	0.002	0.0017	0.006	50 x 20	c
41 X 4380Zn2B	0.26	0.015	0.030	0.29	0.23	0.0015	0.030	...	...	...	...	...	...	...	...	...	40 x 15	
41 X 4380Zn3B	0.21	0.052	0.17	0.18	(0.05)	0.087	0.092	...	...	0.18	0.004	0.037	(0.023)	...	...	...	40 x 15	
CRM 41 X 4380Zn4C	0.325	0.126	0.144	0.094	0.056	0.038	0.0022	0.0007	0.0040	0.005	(0.0003)	...	...	0.017	0.011	(0.002)	50 x 20	
CRM 41 X 4380Zn5C	0.15	0.0018	0.022	0.064	0.012	0.009	0.072	0.036	0.0014	0.33	0.0075	...	...	0.0052	0.031	<0.0005	50 x 20	
CRM 41 X 4380Zn6C	0.42	0.0045	0.0048	0.047	0.017	0.110	0.020	0.025	0.0005	0.062	0.0020	...	...	0.034	0.0010	<0.0005	50 x 20	
CRM 41 X 4380Zn7C	1.25	0.0028	0.137	0.015	(0.0044)	0.0047	0.012	...	0.012	0.009	0.0045	...	...	0.090	...	...	50 x 20	
CRM 41 X 4380Zn8C	0.73	0.007	0.225	0.0079	0.003	0.011	0.020	0.0015	0.024	0.012	0.0019	...	...	0.016	0.011	(0.005)	50 x 20	
CRM 41 B 631	(0.001)	(<0.001)	0.50	0.0002	0.005	0.0001	0.0013	0.00015	<0.0005	...	0.0001	...	...	...	...	(0.002)	44 x 44 x 19	c
4.1.2 Galvanizing Alloys																	Size (mm)	
	Pb	Al	Cd	Fe	Sn	Cu	Ni	Bi	Sb	As	Cr	Mn	Co					
	Ø	H																
CRM 41 X GLV1A	0.056	0.115	0.0093	0.059	0.010	0.0028	0.0141	0.0025	<0.001	<0.001	...	...	...	...	...	...	50 x 20	c
CRM 41 X GLV2A	0.214	0.068	0.0025	0.048	0.003	0.0052	0.0070	0.017	0.006	<0.001	...	...	...	...	...	...	50 x 20	
CRM 41 X GLV3A	0.0080	0.31	0.021	0.012	0.006	0.0188	0.0301	0.0011	0.048	...	...	...	...	...	...	...	50 x 20	
CRM 41 X GLV4A	0.0038	0.201	(0.0001)	0.017	<0.005	0.0009	0.049	0.0051	0.025	<0.002	...	...	...	...	...	...	50 x 20	
CRM 41 X GLV5A	0.0187	0.014	0.0138	0.076	0.020	0.0116	0.0030	0.0105	0.162	0.0041	...	...	...	...	...	...	50 x 20	
CRM 41 X GLV6A	0.120	0.474	0.0053	0.0047	0.0152	0.039	0.0008	0.0248	0.0112	0.0014	0.0029	0.0013	0.0047	...	...	...	50 x 20	
CRM 41 X GLV7A	0.082	0.399	0.00056	0.0031	...	0.023	0.0060	0.0108	0.0031	0.0016	0.0010	0.0025	(0.0001)	...	...	...	50 x 20	
CRM 41 X CGL F	0.046	0.28	(0.0015)	...	<0.001	(0.0005)	...	...	...	...	...	...	...	...	...	...	42-48 x 20	c
CRM 41 B 1736	0.0029	0.3076	...	...	...	...	...	...	...	...	...	...	...	...	...	...	51 X 13	c
CRM 41 B 1737	0.0029	0.6302	...	...	...	...	...	...	...	...	...	...	...	...	...	...	51 X 13	
CRM 41 B 1738	0.0101	0.1014	...	...	...	...	...	...	...	...	...	...	...	...	...	...	51 X 13	
CRM 41 B 1739	0.0302	0.2049	...	...	...	...	...	...	...	...	...	...	...	...	...	...	51 X 13	
CRM 41 B 1740	0.0691	0.4177	...	...	...	...	...	...	...	...	...	...	...	...	...	...	51 X 13	
CRM 41 B 1741	0.1571	0.5242	...	...	...	...	...	...	...	...	...	...	...	...	...	...	51 X 13	
CRM 41 B 1742	0.0081	0.7917	...	...	...	...	...	...	...	...	...	...	...	...	...	...	51 X 13	
4.1.3 Binaries																	Size (mm)	
	Mn	Ni	Pb	Mg	Al	Cd	Fe	Cu										
	Ø	H																
41 X ZMn1A	1.058	(0.0009)	(0.0026)	(0.0001)	(0.0001)	(0.0002)	(0.0025)	(0.0005)									50 x 20	c
4.1.4 Specialty Alloys																	Typical	Size (mm)
	Pb	Mg	Al	Cd	Fe	Sn	Cu	Ni	Mn	Ti	Cr							
	Ø	H														Alloy Type	Ø	H
CRM 41 X 2951Zn1A	0.0042	0.0029	0.029	0.0005	0.011	(0.0007)	0.79	0.0038	0.0013	0.278	0.083				50 x 20	c		
CRM 41 X 2951Zn2A	0.0040	0.0123	0.032	0.0037	0.019	(0.0015)	1.37	0.0027	0.0011	0.209	0.142				50 x 20			
CRM 41 X 2951Zn3A	0.0065	0.0164	0.078	0.0062	0.029	(0.006)	1.89	0.0010	0.0018	0.133	0.184				50 x 20			

# 4. Zinc Base

Blocks/Discs

4.2 Zn/Al		Pb	Mg	Al	Cd	Fe	Sn	Cu	Ni	Mn	Cr	Si	Sb	Ce	La	Typical Alloy Type	Size (mm) Ø H	
CRM	42 X Z1H	0.0022	0.0041	4.61	0.0005	0.0024	0.0006	0.0019	0.0017	0.0007	<0.0005	0.0046	(0.0009)	0.0027	0.0026	BS 1004 A	50 x 20	c
CRM	42 X Z2H	0.0052	0.0147	4.04	0.0010	0.0040	0.0021	0.0186	0.0051	0.012	0.0018	0.0089	0.0026	0.0049	0.0044	ASTM 13	50 x 20	
CRM	42 X Z3H	0.0060	0.0288	3.72	0.0048	(0.047)	0.0030	0.159	0.0102	0.0252	0.002	0.015	0.003	(0.0003)	(0.0003)	ASTM AG40A	50 x 20	
CRM	42 X Z4H	0.0113	0.058	3.55	0.0076	0.012	0.0060	0.063	0.0177	0.0077	...	...	(0.0029)	0.020	0.02		50 x 20	
CRM	42 X Z5J	0.0048	0.073	4.22	0.0021	0.029	0.0022	0.098	0.0185	0.0068	0.0018	...	(0.0055)	0.0109	0.009		50 x 20	
CRM	42 X Z6A	0.0090	0.180	3.60	0.0041	0.005	0.006	0.240	0.0003	0.016	0.0036	0.010	0.0155	...	...		50 x 20	
CRM	42 X Z7A	0.0097	0.0095	4.39	0.030	0.027	0.012	0.0249	0.0067	0.0045	...	0.006	...	0.053	0.047	GALFAN	50 x 20	c
CRM	42 X Z8A	0.0025	0.0033	7.03	0.0003	0.013	(0.0023)	0.0215	0.0019	0.0014	...	0.013	...	0.0081	0.0079		50 x 20	
CRM	42 X Z9A	0.0021	0.0464	5.58	0.0054	0.032	...	0.0070	(0.0003)	0.0006	...	(0.004)	...	0.0047	0.0044		50 x 20	
																	W D H	
CRM	42 B 625	0.0014	0.070	3.06	0.0007	0.036	0.0006	0.034	0.0184	0.031	0.0128	0.017	...	...	...	ASTM AG40A	44 x 44 x 19	c
CRM	42 B 626	0.0022	0.020	3.56	0.0016	0.103	0.0012	0.056	0.047	0.048	0.0395	0.042	...	...	...	ASTM AG40A	44 x 44 x 19	
CRM	42 B 627	0.0082	0.030	3.88	0.0051	0.023	0.0042	0.132	0.0029	0.014	0.0038	0.021	...	...	...	ASTM AG40A	44 x 44 x 19	
CRM	42 B 628	0.0045	0.0094	4.59	0.0040	0.066	0.0017	0.611	0.030	0.0091	0.0087	0.008	...	...	...	ASTM AC41A	44 x 44 x 19	
CRM	42 B 629	0.0135	0.094	5.15	0.0155	0.017	0.012	1.50	0.0075	0.0017	0.0008	0.078	...	...	...	ASTM AC41A	44 x 44 x 19	
CRM	42 B 630	0.0083	0.030	4.30	0.0048	0.023	0.0040	0.976	0.0027	0.0106	0.0031	0.022	...	...	...	ASTM AC41A	44 x 44 x 19	
		ppm Pb	ppm Mg	% Al	ppm Cd	ppm Fe	ppm Sn	ppm Cu	ppm Ni	ppm Mn	ppm Ti					Typical Alloy Type	Size (mm) Ø H	
CRM	42 F 351	4.5	131	4.355	(0.21)	<0.2	<1	12.13	(1.9)	0.74							80 x 20	c
CRM	42 F 352	(6.4)	282	4.150	2.88	3.02	3.0	31.26	6.74	3.2							80 x 20	
CRM	42 F 353	24.4	452.5	3.950	10.44	2.55	5.6	100	...	3.95						Zamak 3	80 x 20	
CRM	42 F 354	30.8	602	3.727	29.7	9.8	14.1	312.3	83.1	11.01							80 x 20	
CRM	42 F 355	56.9	786	3.443	58.1	24.6	29.1	1035	288	23.25							80 x 20	
																	Size (mm) Ø H	
		ppm Pb	ppm Mg	% Al	ppm Cd	ppm Fe	ppm Sn	% Cu	ppm Ni	ppm Mn	ppm Ti					Typical Alloy Type	Size (mm) Ø H	
CRM	43 X Z1J	0.0017	0.0145	4.50	0.00037	0.0058	(0.0007)	0.501	0.0010	0.0005	(0.0037)	0.0009	0.0014	0.0016	0.0031	BS 1004 B	50 x 20	c
CRM	43 X Z2K	0.0066	0.0739	3.80	0.0068	0.020	0.0036	1.04	0.0124	0.0059	0.009	0.0021	...	0.008	0.0019	ASTM 11	50 x 20	
CRM	43 X Z3L	0.0132	0.0143	3.64	0.0132	0.061	0.0125	1.58	0.0061	0.0125	0.005	0.0045	...	(0.0030)	0.018	ASTM AG41A	50 x 20	
CRM	43 X Z4B	(0.0024)	0.043	4.76	0.0025	(0.064)	(0.0023)	3.21	0.0286	0.088	(0.0065)	0.0063	0.0017	0.0043	0.012	ZL2	50 x 20	
CRM	43 X Z5A	0.0045	0.041	3.05	0.0111	0.023	0.0032	6.05	0.0021	0.0030	0.003	0.0010	0.0009	...	...	ACuZinc5	50 x 20	
CRM	43 X Z6A	0.0016	0.0256	4.02	0.0016	0.019	0.0053	2.72	0.029	0.0006	0.012	0.0006	0.0013	0.0045	0.0049		50 x 20	
CRM	43 X Z11E	0.0305	0.053	11.61	0.0224	0.0091	0.0206	0.515	0.0014	0.0089	0.020	0.0010	0.013	0.0091	0.0035		50 x 20	c
CRM	43 X Z12D	0.0133	0.027	10.05	0.0114	0.047	0.0089	0.796	0.0035	0.0059	(0.008)	0.0023	0.0054	0.0039	(0.002)	ASTM B669	50 x 20	
CRM	43 X Z13D	0.0125	0.0204	9.55	0.0100	0.05	0.0111	0.981	0.0109	0.0070	(0.0048)	...	...	0.009	...	ZA8	50 x 20	
CRM	43 X Z14D	0.0082	0.0026	8.24	0.0067	0.015	0.0053	1.23	0.0052	0.0033	0.010	0.0046	0.0012	0.011	0.010	ZA12	50 x 20	
CRM	43 X Z15C	0.0054	0.0024	7.36	0.0030	0.009	0.004	1.53	0.0019	0.0020	(0.011)	0.0025	0.0020	0.005	0.005		50 x 20	
CRM	43 X Z21C	0.012	0.047	23.5	0.027	0.12	0.0140	1.81	0.043	0.0104	0.022	0.0087	0.013	...	...	ASTM B669	50 x 20	c
CRM	43 X Z22C	0.0060	0.022	27.4	0.0050	(0.36)	0.0061	2.32	0.027	0.0096	0.038	0.019	0.0065	...	...	ZA27	50 x 20	
CRM	43 X Z23C	0.0028	0.0133	31.4	0.0024	(0.24)	(0.002)	2.74	0.0115	0.0124	0.061	0.036	0.0026	...	...		50 x 20	
CRM	43 A NZA-1	0.0030	0.020	28.70	0.00098	0.046	0.0069	1.51	...	...	...	...	...	...	...		50 x 12	
CRM	43 A NZA-2	0.0076	0.029	23.81	0.0047	0.021	0.0045	3.00	...	...	...	...	...	...	...		50 x 12	
CRM	43 A NZA-3	0.0045	0.0049	25.99	0.0064	0.066	0.0034	2.00	...	...	...	...	...	...	...		50 x 12	
CRM	43 A NZA-4	0.0101	0.0106	26.65	0.0029	0.027	0.0087	2.45	...	...	...	...	...	...	...		50 x 12	
CRM	43 A NZA-5	0.0012	0.021	10.85	0.0095	(0.016)	0.0017	1.04	...	...	...	...	...	...	...		50 x 12	
CRM	43 A NZA-6	0.0809	0.00037	7.54	0.0147	(0.0105)	0.0051	3.17	...	...	...	...	...	...	...		50 x 12	
CRM	43 A NZA-7	0.0136	0.052	13.17	0.00020	(0.016)	0.0116	0.212	...	...	...	...	...	...	...		50 x 12	
		ppm Pb	ppm Mg	% Al	ppm Cd	ppm Fe	ppm Sn	% Cu	ppm Ni	ppm Mn	ppm Ti					Typical Alloy Type	Size (mm) Ø H	
CRM	43 F 356	9.87	132.3	4.434	0.73	31.5	(0.32)	0.394	3.43	<0.2	0.79						80 x 20	c
CRM	43 F 357	13.8	273	4.227	2.83	25.7	3.51	0.5849	9.82	3.3	2.76						80 x 20	
CRM	43 F 358	22.5	403	3.946	10.22	40.5	7.87	0.793	26.98	7.04	6.09					Zamak 5	80 x 20	
CRM	43 F 359	36.2	557	3.711	29.8	119.7	16.93	0.989	92.6	15.5	13.34						80 x 20	
CRM	43 F 360	73.9	705	3.427	59.5	...	33.3	1.234	267	29.8	25.9						80 x 20	
CRM	43 F 361	5.31	...	4.068	(0.8)	10.34	46.3	0.798	...	<0.2	37.4						80 x 20	
																	Size (mm) Ø H	
		Al	Sb	Mg	Cu	Pb	Cd	Bi	Sn	Fe	Zn	Ni	Ag				Size (mm) Ø H	
	44 X Z1A	8.0	10.6	0.001	0.028	0.019	0.027	0.024	0.024	0.007	rem	...	...				40 x 15	c
	44 X Z2A	12.6	9.5	0.035	0.003	0.053	0.005	0.030	0.018	0.007	rem	...	...				40 x 15	
	44 X Z3A	17.8	8.1	0.005	0.011	0.020	0.012	0.013	0.019	0.009	rem	...	...				40 x 15	
	44 X Z4A	20.3	6.7	0.008	0.007	0.032	0.011	0.016	0.018	0.011	rem	...	...				40 x 15	
	44 X Z5A	20.4	5.2	<0.001	0.001	0.010	0.001	0.004	0.003	0.010	rem	...	...				40 x 15	
																	Note: the above series has some Sb segregation, and must therefore be used with caution	
	44 X ZnCd30A	...	1.03	...	0.05	0.09	31.0	0.05	0.05	0.002	rem	0.001	0.05				40 x 15	c
																	Size (mm) Ø H	
		Zn	Si	Fe	Cu	Sn	Pb	Mg	Ti	Ca	Li	Al					Size (mm) Ø H	
	45 X ZnAl1A	24.5	2.72	0.28	0.065	0.020	0.020	0.013	0.022	(0.018)	(0.0022)	(72.6)					60 x 6	cc
	45 X ZnAl2A	36.1	2.58	0.20	0.048	0.008	0.010	0.007	0.025	(0.009)	(0.0034)	(60.9)					60 x 6	
	45 X ZnAl3A	45.8	1.00	0.127	0.021	0.003	0.0046	0.003	0.0087	(0.006)	(0.0006)	(53.0)					60 x 6	
	45 X ZnAl4A	54.65	0.67	0.095	0.013	0.0023	0.003	<0.0005	0.0038	(0.0023)	(0.0002)	(44.5)					60 x 6	
	45 X ZnAl5A	40.8	1.88	0.050	0.0035	(0.002												