

April 1, 2023

Aluminium reference material for emission spectrochemical analysis [High purity DC disc]

Concentration reported in % [m/m]

Alloy		Ag	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	In	Li
		Mg	Mn	Na	Ni	P	Pb	Sb	Si	Sn	Sr	Ti	V	Zn	Zr
HP-4002	Cer. Val.				0.0030					0.0030	0.0031	0.0031	0.0033		
	Cer. Val.	0.0028	0.0034		0.0031				0.0030			0.0032	0.0030	0.0031	0.0030
	Cer. Val.														
	Cer. Val.														

Cer. Val.: Certificated values.

Uncertainty: The reported uncertainty is an expanded uncertainty calculated using a coverage factor of 2 which gives a level of confidence of approximately 95%

Aluminium reference material for emission spectrochemical analysis [DC disc] 1/9

Concentration reported in % [m/m]

Alloy	Series		Si	Fe	Cu	Ti	Mn	Mg	V	Ni	Zn	Cr	Sn	Pb	Bi	Ag	
			Sb	Zr	Be	Ga	Co	Cd	In	B	Sr	Na	Ca	P	Li	Ba	
HP	N-DC2	Cer. Val.	0.0010	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001					
		Cer. Val.															
1S	N-DC4	Cer. Val.	0.110	0.107	0.035	0.026	0.032	0.025	0.029	0.031	0.055	0.032	0.020	0.020	0.0097		
		Cer. Val.	0.009	0.010	0.0016	0.029							0.0007				

Values in parentheses are not certified and are given for information only.

Aluminium reference material for emission spectrochemical analysis [DC disc] 2/9

Concentration reported in % [m/m]

Alloy	Series		Si	Fe	Cu	Ti	Mn	Mg	V	Ni	Zn	Cr	Sn	Pb	Bi	Ag
			Sb	Zr	Be	Ga	Co	Cd	In	B	Sr	Na	Ca	P	Li	Ba
3105	N-DC1	Cer. Val.	0.321	0.628	0.182	0.097	0.578	0.492	0.023	0.031	0.150	0.099	0.020	0.019	0.020	
		Cer. Val.		0.021	0.0026	0.038	0.0092	0.0097		(0.002)	0.0034	(0.0018)	0.0023	(0.0036)	(0.00014)	

Values in parentheses are not certified and are given for information only.

Aluminium reference material for emission spectrochemical analysis [DC disc] 3/9

Concentration reported in % [m/m]

Alloy	Series		Si	Fe	Cu	Ti	Mn	Mg	V	Ni	Zn	Cr	Sn	Pb	Bi	Ag
			Sb	Zr	Be	Ga	Co	Cd	In	B	Sr	Na	Ca	P	Li	Ba
51S	N-DC2	Ger. Val.	1.06	0.286	0.052	0.089	0.549	(0.69)		0.012	0.018	0.020				
		Ger. Val.														
52S	N-DC3	Ger. Val.	0.146	0.201	0.047	0.02	0.049	2.46		0.023	0.022	0.314				
		Ger. Val.			0.0015											
54S	N-DC2	Ger. Val.	0.194	0.198	0.019	0.035	0.054	3.36		0.046	0.058	0.236				
		Ger. Val.			0.0023											
56S	N-DC2	Ger. Val.	0.104	0.201	0.014	0.013	0.203	5.01		0.011	0.016	0.147				
		Ger. Val.			0.0030											

Values in parentheses are not certified and are given for information only.

Aluminium reference material for emission spectrochemical analysis [DC disc] 4/9

Concentration reported in % [m/m]

Alloy	Series		Si	Fe	Cu	Ti	Mn	Mg	V	Ni	Zn	Cr	Sn	Pb	Bi	Ag	
			Sb	Zr	Be	Ga	Co	Cd	In	B	Sr	Na	Ca	P	Li	Ba	
6061	N-DC3	Cer. Val.	0.557	0.708	0.313	0.071	0.122	1.10	0.0064	0.0074	0.096	0.203					
		Cer. Val.		0.134	0.0020	0.035											
6070	N-DC1	Cer. Val.	2.29	0.597	0.140	0.095	0.539	0.452	0.023	0.028	0.932	0.094	0.019	0.0085	0.011		
		Cer. Val.		0.020	0.0027	0.040	0.0089	0.0075				0.0006	0.0014	0.0019	(0.0018)	(0.00008)	
63S	N-DC3	Cer. Val.	0.407	0.196	0.054	0.013	0.013	0.655	0.012	0.048	0.058	0.052					
		Cer. Val.															
63S	N-DC4	Cer. Val.	0.423	0.197	0.0005	0.0003	0.0005	0.495	0.0002	0.0002	0.0004	0.0001	<0.0001	<0.0001	<0.0001		
		Cer. Val.		<0.0001	<0.0001	0.0002	<0.0001				0.0001	<0.0001	<0.0001	<0.0001		<0.0001	0.0003
63S	N-DC5	Cer. Val.	0.527	0.300	0.0021	0.0005	0.0017	0.582	0.0010	0.0010	0.0012	0.0013	0.0018	0.0013	0.0009		
		Cer. Val.		0.0008	0.0004	0.0044	0.0004				0.0006	0.0004	0.0005	0.0003		0.0002	0.0010

Aluminium reference material for emission spectrochemical analysis [DC disc] 5/9

Concentration reported in % [m/m]

Alloy	Series		Si	Fe	Cu	Ti	Mn	Mg	V	Ni	Zn	Cr	Sn	Pb	Bi	Ag	
			Sb	Zr	Be	Ga	Co	Cd	In	B	Sr	Na	Ca	P	Li	Ba	
7003	N-DC	Cer. Val.	0.263	0.301	0.217	0.081	0.203	0.768	0.0047	0.046	5.30	0.208					
		Cer. Val.		0.183	0.0030												

Values in parentheses are not certified and are given for information only.

Aluminium reference material for emission spectrochemical analysis [DC disc] 6/9

Concentration reported in % [m/m]

Alloy	Series		Si	Fe	Cu	Ti	Mn	Mg	V	Ni	Zn	Cr	Sn	Pb	Bi	Ag	
			Sb	Zr	Be	Ga	Co	Cd	In	B	Sr	Na	Ca	P	Li	Ba	
7075	N-DC2	Cer. Val.	0.199	0.300	1.50	0.024	0.112	2.51	0.0043	0.045	5.80	0.205					
		Cer. Val.		0.142	0.0027												
8000	N-DC1	Cer. Val.	0.831	1.93	0.105	0.055	0.469	0.045	0.058	0.053	0.047	0.053	0.028	0.030	0.030		
		Cer. Val.		0.049	0.0027	0.058					(0.0005)	(0.0020)	(0.0006)	(0.0012)	(0.0027)	(0.00009)	

Values in parentheses are not certified and are given for information only.

Aluminium reference material for emission spectrochemical analysis [DC disc] 7/9

Concentration reported in % [m/m]

Alloy	Series		Si	Fe	Cu	Ti	Mn	Mg	V	Ni	Zn	Cr	Sn	Pb	Bi	Ag
			Sb	Zr	Be	Ga	Co	Cd	In	B	Sr	Na	Ca	P	Li	Ba
AC2A	N-DC1	Cer. Val.	4.41	0.511	3.82	(0.1)	0.464	0.198		0.190	0.203	0.060	0.054			
		Cer. Val.	0.0001									0.0004	0.0012	0.0003		
AC4C	N-DC15	Cer. Val.	7.53	0.115	0.016	(0.02)	0.014	0.547	0.011	0.016	0.018	0.0011	0.076	0.081	0.016	
		Cer. Val.	0.101			0.0077					0.0031	0.0010	0.0010	0.0014		
AC4D	N-DC2	Cer. Val.	5.63	0.149	1.50	0.107	0.103	0.539		0.050	0.102	0.053				
		Cer. Val.										(0.0028)	0.0029	0.0007		

Values in parentheses are not certified and are given for information only.

Aluminium reference material for emission spectrochemical analysis [DC disc] 8/9

Concentration reported in % [m/m]

Alloy	Series	Cer. Val.	Si	Fe	Cu	Ti	Mn	Mg	V	Ni	Zn	Cr	Sn	Pb	Bi	Ag	
			Sb	Zr	Be	Ga	Co	Cd	In	B	Sr	Na	Ca	P	Li	Ba	
AC7B	N-DC2	Cer. Val.	0.217	0.299	0.079	0.104	0.201	10.17		0.049	0.102	0.095	0.048	0.050			
		Cer. Val.			0.0046									0.0023			
ADC10	N-DC3	Cer. Val.	9.30	0.486	3.53	0.056	0.281	0.138	0.024	0.103	0.308	0.103	0.067	0.055	0.0095		
		Cer. Val.	0.0095			0.0091	0.0055				(0.0065)	(0.0029)	0.0027	0.0049			
A390	N-DC2	Cer. Val.	(17.1)	0.431	4.71	0.116	0.104	0.615		0.106	0.111	0.102	0.103	0.103			
		Cer. Val.												0.0018	(0.011)		

Values in parentheses are not certified and are given for information only.

Aluminium reference material for emission spectrochemical analysis [DC disc] 9/9

Concentration reported in % [m/m]

Alloy	Series		Si	Fe	Cu	Ti	Mn	Mg	V	Ni	Zn	Cr	Sn	Pb	Bi	Ag
			Sb	Zr	Be	Ga	Co	Cd	In	B	Sr	Na	Ca	P	Li	Ba
ADC12	N-DC14	Ger. Val.	11.92	0.801	1.99	0.045	0.244	0.185		0.144	0.891	0.021	0.102	0.098	0.0058	
		Ger. Val.						0.0022						(0.003)		

Values in parentheses are not certified and are given for information only.