

**Registered Aluminum Alloy Designations and Chemical Composition Limits for Powders used for Powder Metallurgy (PM) and for Additive Manufacturing (AM) Feedstock and Products**

**April 15, 2021**

Alloy Designation and Chemical Composition Limits Registered																						
Designation			Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	O	Be	Pb	Sn	Zr	Others	FNs	OTHERS <sup>4</sup>		AI Minimum	
AA No.	Date REGISTERED	PRODUCTS																	Each <sup>4</sup>	Total <sup>4</sup>		
3A20.50	12/16/2020	Powder	10.5-11.3	0.10-0.30	0.30-0.8	0.30-0.7	0.30-0.7	-	-	0.03	0.12-0.25	0.50	-	-	-	-	-	-	-	0.05	0.15	Rem.
3A90.50	12/16/2020	Powder	7.5-8.5	0.6-1.2	1.0-1.5	0.6-0.9	0.50-1.0	0.15-0.40	1.2-1.6	-	-	0.50	-	-	-	0.20-0.50	V: 0.10-0.30	-	-	0.05	0.15	Rem.
5A53.50	12/16/2020	Powder	0.12	0.15	-	-	4.2-5.0	-	-	-	-	0.20	0.005	-	-	0.6-0.8	Sc: 0.25-0.50 Ca: 0.005-0.15	-	-	0.05	0.15	Rem.
2A05.50	10/12/2020	Powder	0.10 Max	0.08 Max	4.2 – 5.0	-	0.20 – 0.35	-	-	-	3.0 – 3.9	0.10 Max	-	-	-	-	Ag: 0.6 – 0.9 B: 1.25 – 1.55 K: 0.08 Max	-	-	0.08 Max	0.17 Max	Rem.
2A05.51	10/12/2020	Powder	0.10 Max	0.08 Max	4.2 – 5.0	-	0.20 – 0.35	-	-	-	3.0 – 3.9	0.15 Max	-	-	-	-	Ag: 0.6 – 0.9 B: 1.25 – 1.55 K: 0.08 Max	-	-	0.08 Max	0.17 Max	Rem.
2A05.60L	10/12/2020	Product from powder feedstock	0.10 Max	0.08 Max	4.2 – 5.0	-	0.20 – 0.35	-	-	-	3.0 – 3.9	0.10 Max	-	-	-	-	Ag: 0.6 – 0.9 B: 1.25 – 1.55 K: 0.08 Max	-	-	0.08 Max	0.17 Max	Rem.
2A05.61L	10/12/2020	Product from powder feedstock	0.10 Max	0.08 Max	4.2 – 5.0	-	0.20 – 0.35	-	-	-	3.0 – 3.9	0.15 Max	-	-	-	-	Ag: 0.6 – 0.9 B: 1.25 – 1.55 K: 0.08 Max	-	-	0.08 Max	0.17 Max	Rem.
2B05.50	10/12/2020	Powder	0.10 Max	0.08 Max	4.2 – 5.0	-	0.20 – 0.35	-	-	-	2.0 – 2.6	0.10 Max	-	-	-	-	Ag: 0.6 – 0.9 B: 0.8 – 1.05 K: 0.08 Max	-	-	0.08 Max	0.17 Max	Rem.
2B05.60	10/12/2020	Product from powder feedstock	0.10 Max	0.08 Max	4.2 – 5.0	-	0.20 – 0.35	-	-	-	2.0 – 2.6	0.10 Max	-	-	-	-	Ag: 0.6 – 0.9 B: 0.8 – 1.05 K: 0.08 Max	-	-	0.08 Max	0.17 Max	Rem.
3A60.50	01/15/2020	Powder	9.0 - 11.0	0.40	0.03	0.10	0.25 - 0.45	-	0.05	0.10	0.15	0.10 Max	0.002	0.05	0.05	-	-	-	-	0.05	0.15	Rem.
3A60.51	01/15/2020	Powder	9.0 - 11.0	0.40	0.03	0.10	0.25 - 0.45	-	0.05	0.10	0.15	0.15 Max	0.002	0.05	0.05	-	-	-	-	0.05	0.15	Rem.
8A01.50	08/16/2019	Powder	-	-	-	-	8.5-9.5	-	-	-	-	0.20 Max	-	-	-	-	Ce: 9.5 – 10.5	-	-	0.10	0.20	Rem.
8A01.60L	08/16/2019	Product	-	-	-	-	8.5-9.5	-	-	-	-	0.6 Max	-	-	-	-	Ce: 9.5 – 10.5	-	-	0.10	0.20	Rem.
8A02.50	08/16/2019	Powder	-	-	-	-	4.5-5.5	-	-	-	-	0.20 Max	-	-	-	-	Ce: 9.5 – 10.5	-	-	0.10	0.20	Rem.
8A02.60L	08/16/2019	Product	-	-	-	-	4.5-5.5	-	-	-	-	0.6 Max	-	-	-	-	Ce: 9.5 – 10.5	-	-	0.10	0.20	Rem.
8A03.50	08/16/2019	Powder	-	-	-	-	8.5-9.5	-	-	-	-	0.20 Max	-	-	-	-	Ce: 12.5– 13.5	-	-	0.10	0.20	Rem.
8A03.60L	08/16/2019	Product	-	-	-	-	8.5-9.5	-	-	-	-	0.6 Max	-	-	-	-	Ce: 12.5 – 13.5	-	-	0.10	0.20	Rem.
8A55.60L	05/06/2019	AM	0.15	5.0-6.1	-	-	-	-	-	-	-	0.6 Max	-	-	-	-	Ce: 2.9-4.0 La: 1.6-2.5	-	-	0.05	0.15	Rem.

FN<sup>4</sup>, "Others" includes listed elements for which no specific limit is shown as well as unlisted metallic elements. The producer may analyze samples for trace elements not specified in the registration or specification. However, such analysis is not required and may not cover all metallic "Others" elements. Should any analysis by the producer or purchaser establish that an "Others" element exceeds the limit of "Each" or that the aggregate of several "Others" elements exceeds the limits of "Total", the material shall be considered non-conforming.

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Designation			Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	O	Be	Pb	Sn	Zr	Others	FNs	OTHERS <sup>4</sup>		Al Minimum
AA No.	Date REGISTERED	PRODUCTS																	Each <sup>4</sup>	Total <sup>4</sup>	
8A55.50	05/06/2019	PM	0.15	5.0-6.1	-	-	-	-	-	-	-	0.20 Max	-	-	-	-	Ce: 2.9-4.0 La: 1.6-2.5	-	0.05	0.15	Rem.
7A77.60L	02/07/2019	AM	0.40	0.40	1.1-2.1	0.30	1.8-2.9	0.10	0.05	4.5-6.1	0.10	0.50 Max	-	-	0.05	0.50-2.8	-	-	0.05	0.25	Rem.
7A77.61L	02/07/2019	AM	0.12	0.15	1.2-2.0	0.10	2.0-2.7	0.05	0.05	4.7-5.8	0.10	0.50 Max	-	-	0.05	0.50-2.8	-	-	0.05	0.15	Rem.
7A77.50	02/07/2019	PM	0.40	0.40	1.1-2.1	0.30	3.0-4.6	0.10	0.05	7.1-9.0	0.15	0.50 Max	0.0003	-	0.05	0.50-2.8	-	-	0.05	0.25	Rem.
7A77.51	02/07/2019	PM	0.12	0.15	1.2-2.0	0.10	3.2-4.4	0.05	0.05	7.3-8.7	0.10	0.50 Max	0.0003	-	0.05	0.50-2.8	-	-	0.05	0.15	Rem.
7A75.60L	02/07/2019	AM	0.4	0.4	1.1-2.1	0.3	1.8-2.9	0.1	0.05	4.5-6.1	0.1	0.50 Max	-	-	0.05	-	-	-	0.05	0.25	Rem.
7A75.61L	02/07/2019	AM	0.12	0.15	1.2-2.0	0.1	2.0-2.7	0.05	0.05	4.7-5.8	0.1	0.50 Max	-	-	0.05	-	-	-	0.05	0.15	Rem.
7A75.50	02/07/2019	PM	0.4	0.4	1.1-2.1	0.3	3.0-4.6	0.1	0.05	7.1-9.0	0.2	0.50 Max	0.0003	-	0.05	-	-	-	0.05	0.25	Rem.
7A75.51	02/07/2019	PM	0.12	0.15	1.2-2.0	0.1	3.2-4.4	0.05	0.05	7.3-8.7	0.1	0.50 Max	0.0003	-	0.05	-	-	-	0.05	0.15	Rem.

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