

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

April 20, 2022

| 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 ⁴ | | AI Minimum |
| AA No. | Date REGISTERED | PRODUCTS | | | | | | | | | | | | | | | | | Each ⁴ | Total ⁴ | |
| 8A61.50 | 02/28/2022 | Powder | 0.50 | 0.8-1.4 | - | - | - | - | - | - | - | 0.6 | - | - | - | 0.9-1.4 | - | - | 0.20 | 0.50 | Rem. |
| 8A81.50 | 02/28/2022 | Powder | 0.50 | 0.50 | 1.5-2.5 | 3.0-4.5 | - | - | 2.0-3.5 | - | - | 0.6 | - | - | - | 0.7-1.3 | - | - | 0.20 | 0.50 | Rem. |
| 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 | - | - | - | - | - | - | 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 | - | - | - | - | - | - | 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 | - | - | - | - | - | - | 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 | - | - | - | - | - | - | 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 | - | - | - | - | - | - | 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 | - | - | - | - | - | - | 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 | - | - | - | - | - | - | 0.10 | 0.20 | Rem. |
| 8A01.60L | 08/16/2019 | Product | - | - | - | - | 8.5-9.5 | - | - | - | - | 0.6 Max | - | - | - | - | - | - | 0.10 | 0.20 | Rem. |
| 8A02.50 | 08/16/2019 | Powder | - | - | - | - | 4.5-5.5 | - | - | - | - | 0.20 Max | - | - | - | - | - | - | 0.10 | 0.20 | Rem. |
| 8A02.60L | 08/16/2019 | Product | - | - | - | - | 4.5-5.5 | - | - | - | - | 0.6 Max | - | - | - | - | - | - | 0.10 | 0.20 | Rem. |
| 8A03.50 | 08/16/2019 | Powder | - | - | - | - | 8.5-9.5 | - | - | - | - | 0.20 Max | - | - | - | - | - | - | 0.10 | 0.20 | Rem. |
| 8A03.60L | 08/16/2019 | Product | - | - | - | - | 8.5-9.5 | - | - | - | - | 0.6 Max | - | - | - | - | - | - | 0.10 | 0.20 | Rem. |
| 8A55.60L | 05/06/2019 | AM | 0.15 | 5.0-6.1 | - | - | - | - | - | - | - | 0.6 Max | - | - | - | - | - | - | 0.05 | 0.15 | Rem. |
| 8A55.50 | 05/06/2019 | PM | 0.15 | 5.0-6.1 | - | - | - | - | - | - | - | 0.20 Max | - | - | - | - | - | - | 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. |

FN⁴. "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.

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

April 20, 2022

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 ⁴ | | AI Minimum |
|-------------|-----------------|----------|------|------|---------|------|---------|------|------|---------|------|----------|--------|----|------|----------|--------|-----|---------------------|--------------------|---------------|
| AA No. | Date REGISTERED | PRODUCTS | | | | | | | | | | | | | | | | | Each ⁴ | Total ⁴ | |
| 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. |

FN⁴, "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.