

PLEASE READ THE FOLLOWING ELIGIBILITY REQUIREMENTS PRIOR TO APPLYING FOR REGISTRATION

1. The aluminum or aluminum alloy shall be offered for sale⁽¹⁾ currently and shall have been sold within the previous 12 months, in both cases in commercial quantities⁽²⁾;
2. The complete chemical composition limits must be disclosed.
3. Data for "Others, Each" and "Others, Total" must be included in the chemical composition.
4. The composition must be different from that of any Additive Manufactured (AM) product or feedstock which a designation has already been assigned.
5. The composition limits for the xxxx.5x powder and/or xxxx.7 wire must accompany the request for xxxx.6x AM registration.
6. Except in the case of rotor and aluminumizing alloy ingot, composition limits for ingot will not be accepted for registration in the absence of limits for castings of the same designation.
7. The product (L = chemical composition limits for laser powder bed fusion products, E = chemical composition limits for electron beam powder bed fusion products, D = chemical composition limits for laser direct powder deposit products, S = chemical composition limits for sintered products, C = chemical composition limits for cold spray products) must be shown at the time of registration.

For detailed information on the registration rules and procedures, refer to the registration record, "Aluminum Alloy Designations and Chemical Composition Limits for Additive Manufacturing (AM) and Powder Metallurgy (PM) Feedstock and Products" (Purple Sheets).

FOOTNOTES

- (1) Sale of an alloy shall have been made to external users/customers (i.e. internal use and/or transfer of an alloy within a company does not meet the stated criteria)
- (2) Guidelines for compliance with "Commercial Quantity":
- The alloy has undergone bona fide mill production and is NOT a "laboratory" scale volume used for evaluations or experimental purposes.
 - The alloy is produced in standard production facility and is NOT a one-time production.
 - There is an expected and ongoing commercial demand and/or need for the alloy.
 - The alloy must be purchased and sold in a standard business context, which indicates that the alloy is actually "sold" and not "given away" for uses such as promotional evaluations

ALLOY REGISTRATION REQUEST
ADDITIVE MANUFACTURED PRODUCTS AND POWDER & WIRE FEEDSTOCK

Please submit your registration request to
 Standards and Technology Department
standards@aluminum.org
 The Aluminum Association, Inc.
 1400 Crystal Drive, Suite 430
 Arlington, VA 22202

Date:

Re: Request for Registration of a New Additive Manufactured (AM) Product and Powder & Wire Feedstock Alloys (insert the proposed designation(s), if any)
 The following Chemical Composition limits are being submitted for registration as a new AM alloy.

| Designation | | | | | | | | | | | | Additional Elements | FNs | Other Each | Other Total | Al min. |
|-------------|------------|----|----|----|----|----|----|----|----|----|----|---------------------|-----|------------|-------------|---------|
| AA No. | Products | Si | Fe | Cu | Mn | Mg | Cr | Ni | Zn | Ti | Sn | | | | | |
| xxxx.6x | AM Product | | | | | | | | | | | | | | | Rem. |
| xxxx.5x | Powder | | | | | | | | | | | | | | | Rem. |
| xxxx.7 | Wire | | | | | | | | | | | | | | | Rem. |

See instructions for determining the appropriate aluminum alloy designation on the next page. Use: L = chemical composition limits for laser powder bed fusion products, E = chemical composition limits for electron beam powder bed fusion products, D = chemical composition limits for laser direct powder deposit products, S = chemical composition limits for sintered products, C = chemical composition limits for cold spray products

(Add: A brief statement that the alloy is currently offered for sale and has been sold to an outside customer within the previous 12 months, in both cases, in commercial quantities.)

Add: Name, Title, Company
 Signature)

NOTE: This form is intended to assist applicants and reviewers of alloy registration requests. It is not intended to cover all registration requirements and additional information may be requested to complete the registration.

AA/ANSI Designation System for Powder and Products

- Powder Alloys and Products made from Powder Feedstock (e.g., parts, preforms)
- wZxx.yvS
 - w (First place) = Alloy Powder Group (1-8), i.e., primary alloying element
 - Group 1 = Aluminum > 99%
 - Group 2 = Copper
 - Group 3 = Silicon with Copper and/or Magnesium
 - Group 4 = Silicon
 - Group 5 = Magnesium
 - Group 6 = Magnesium and Silicon
 - Group 7 = Zinc
 - Group 8 = Other element (including Tin and Manganese)
 - Z (Second place) = A-Z w/o I,O,Q,X): A=original alloy, B-Z is modification of an original alloy (21 possible modifications)
 - xx (Third and fourth place) Alloy Family = minimum Al content for Alloy Group 1 and arbitrary for Groups 2-8
 - y (Fifth place) indicates product form; 5= powder and 6= product from powder feedstock
 - v (Sixth place) indicates original powder composition (0) or powder composition variation (1-9). This could be expanded to two digits if and when the number of powder variations exceed 9.
 - S (Suffix letter) indicates product composition corresponding to a given process (22 possible)
 - x.6vL = chemical composition limits for Laser powder bed fusion products reflecting element pick-up/loss and reuse
 - x.6vE = chemical composition limits for Electron beam powder bed fusion products reflecting element pick-up/loss
 - x.6vD = chemical composition limits for laser Direct powder deposit reflecting element pick-up/loss and reuse
 - x.6vS = chemical composition for Sintered products reflecting element pick-up/loss and binder impurities
 - x.6vC = chemical composition for Cold spray products reflecting element pick-up/loss
 - Example: 3B57.61L is composition of laser powder bed product made with 3B57.51 powder (3B57 being the first modification of original powder alloy 3A57.50; 0.61 indicates product made from powder variation 1)

AA/ANSI Designation System for Wire/Rod Products

- Wire/Rod Alloys
 - Wire/Rod are wrought products. Wire/rod alloys for AM processes will continue to be registered in the AA wrought alloy system
- Products from Wire/Rod Feedstock
 - xxxxy.7S
 - xxxx is the 4-digit numerical AA wrought designation for wire/rod (i.e., alloy group/modification/alloy family)
 - y is the optional letter indicating a wrought alloy variation
 - “.7” indicates a product made from wire/rod feedstock (similar to “.6” for a product from powder feedstock)
 - S (Suffix letter) indicates a product composition corresponding to a given process (22 possible)
 - x.7P = chemical composition limits for plasma direct wire/rod deposit reflecting element pick-up/loss
 - x.7E = chemical composition limits for electron beam direct/rod wire deposit reflecting element pick-up/loss
 - x.7D = chemical composition limits for laser direct wire/rod deposit reflecting element pick-up/loss
 - x.7S = chemical composition limits for solid state wire/rod deposit reflecting element pick-up/loss