



Standard Specification for Magnesium-Alloy Extruded Bars, Rods, Profiles, Tubes, and Wire¹

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This standard has been approved for use by agencies of the U.S. Department of Defense.

1. Scope*

1.1 This specification covers magnesium-alloy extruded bars, rods, profiles, tubes, and wire of the composition given in [Table 1](#).

1.2 The values stated in either inch-pound or SI units are to be regarded separately as standards. The SI units are shown in brackets or in separate tables or columns. The values stated in each system are not exact equivalents; therefore, each system must be used independent of the other. Combining values from the two systems may result in nonconformance with the specification.

1.3 Unless the order specifies the “M” specification designation, the material shall be furnished to the inch-pound units.

2. Referenced Documents

2.1 The following documents of the issue in effect on date of order acceptance form a part of this specification to the extent referenced herein.

2.2 ASTM Standards:²

- [B117 Practice for Operating Salt Spray \(Fog\) Apparatus](#)
- [B296 Practice for Temper Designations of Magnesium Alloys, Cast and Wrought](#)
- [B557 Test Methods for Tension Testing Wrought and Cast Aluminum- and Magnesium-Alloy Products](#)
- [B557M Test Methods for Tension Testing Wrought and Cast Aluminum- and Magnesium-Alloy Products \(Metric\)](#)
- [B660 Practices for Packaging/Packing of Aluminum and Magnesium Products](#)
- [B666/B666M Practice for Identification Marking of Alumi-](#)

[num and Magnesium Products](#)

[B951 Practice for Codification of Unalloyed Magnesium and Magnesium-Alloys, Cast and Wrought](#)

[B953 Practice for Sampling Magnesium and Magnesium Alloys for Spectrochemical Analysis](#)

[B954 Test Method for Analysis of Magnesium and Magnesium Alloys by Atomic Emission Spectrometry](#)

[E29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications](#)

[E55 Practice for Sampling Wrought Nonferrous Metals and Alloys for Determination of Chemical Composition](#)

[E527 Practice for Numbering Metals and Alloys in the Unified Numbering System \(UNS\)](#)

3. Terminology

3.1 Definitions:

3.1.1 *extruded bar*—a solid extrusion, long in relation to its cross-sectional dimensions, having a symmetrical cross section that is square or rectangular with sharp or rounded corners or edges, or is a regular hexagon or octagon, and whose width or greatest distance between parallel faces is over 0.375 in. [10 mm].

3.1.2 *extruded profile*—a hollow or solid extrusion, long in relation to its cross-sectional dimensions, whose cross section is other than that of wire, rod, bar, or tube.

3.1.3 *extruded rod*—a solid round extrusion, long in relation to its diameter, whose diameter is over 0.375 in. [10 mm].

3.1.4 *extruded tube*—a hollow extrusion, long in relation to its cross-sectional dimensions, which is symmetrical and is round, square, rectangular, hexagonal, octagonal, or elliptical with sharp or rounded corners, and has a uniform wall thickness except as affected by corner radii.

3.1.5 *producer*—the primary manufacturer of a material.

3.1.6 *supplier*—includes only the category of jobbers and distributors as distinct from producer.

3.1.7 *wire*—a solid section long in relation to its cross-sectional dimensions, having a cross section that is round, hexagonal, or octagonal, and whose diameter, width, or greatest distance between parallel faces is up through 0.375 in. [10

¹ This specification is under the jurisdiction of ASTM Committee B07 on Light Metals and Alloys and is the direct responsibility of Subcommittee B07.04 on Magnesium Alloy Cast and Wrought Products.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.