



Standard Specification for Aluminum-Alloy Extruded Bar, Rod, Tube, Pipe, Structural Profiles, and Profiles for Electrical Purposes (Bus Conductor)¹

This standard is issued under the fixed designation B317/B317M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

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

^{ε1} NOTE—Table 2 was reformatted editorially in November 2016.

1. Scope*

1.1 This specification covers 6101 aluminum-alloy extruded bar, rod, tube, pipe, (Schedules 40 and 80), structural profiles, and profiles in selected tempers for use as electric conductors as follows:

1.1.1 *Type B*—Hot-finished bar, rod, tube, pipe, structural profiles and profiles in T6, T61, T63, T64, T65, and H111 tempers with Type B tolerances, as shown in the “List of ANSI Tables of Dimensional Tolerances.”

1.1.2 *Type C*—Hot-finished rectangular bar in T6, T61, T63, T64, T65, and H111 tempers with Type C tolerances as listed in the tolerances and permissible variations tables.

1.2 Alloy and temper designations are in accordance with ANSI H35.1. The equivalent Unified Numbering System alloy designation in accordance with Practice E527 is A96101 for Alloy 6101.

NOTE 1—Type A material, last covered in the 1966 issue of this specification, is no longer available; therefore, requirements for cold-finished rectangular bar have been deleted.

1.3 For acceptance criteria for inclusion of new aluminum and aluminum alloys in this specification, see Annex A2.

1.4 The values stated in either SI or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

¹ This specification is under the jurisdiction of ASTM Committee B07 on Light Metals and Alloys and is the direct responsibility of Subcommittee B07.03 on Aluminum Alloy Wrought Products.

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2. Referenced Documents

2.1 The following documents of the issue in effect on the date of material purchase form a part of this specification to the extent referenced herein:

2.2 ASTM Standards:²

- B193 Test Method for Resistivity of Electrical Conductor Materials
- B253 Guide for Preparation of Aluminum Alloys for Electroplating
- B557 Test Methods for Tension Testing Wrought and Cast Aluminum- and Magnesium-Alloy Products
- B660 Practices for Packaging/Packing of Aluminum and Magnesium Products
- B666/B666M Practice for Identification Marking of Aluminum and Magnesium Products
- B807/B807M Practice for Extrusion Press Solution Heat Treatment for Aluminum Alloys
- B881 Terminology Relating to Aluminum- and Magnesium-Alloy Products
- B918 Practice for Heat Treatment of Wrought Aluminum Alloys
- E29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications
- E34 Test Methods for Chemical Analysis of Aluminum and Aluminum-Base Alloys
- E55 Practice for Sampling Wrought Nonferrous Metals and Alloys for Determination of Chemical Composition
- E290 Test Methods for Bend Testing of Material for Ductility

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.