



Designation: B 308/B 308M – 002

Used in USAEC-RDT Standards

Standard Specification for Aluminum-Alloy 6061-T6 Standard Structural Profiles¹

This standard is issued under the fixed designation B 308/B 308M; 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 Department of Defense.

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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1. Scope *

1.1 This specification² covers extruded 6061-T6 aluminum-alloy standard structural profiles.

1.2 The profiles are limited to I-beams, H-beams, channels, angles, tees, and zeeks.

NOTE 1—For other extruded profiles in other alloys and tempers refer to Specification B 221.

1.3 Alloy and temper designations are in accordance with ANSI H35.1-~~1~~ and ANSI H35.1(M). The equivalent Unified Numbering System alloy designation is that in Table 1 preceded by A9, or A96061 for alloy 6061 in accordance with Practice E 527.

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

1.5 The values stated in either inch-pound or SI units are to be regarded separately as standard. ~~The SI units are shown in brackets.~~ The values stated in each system are not exact equivalents; therefore, each system must be used independently of the other. Combining values from the two systems will result in nonconformance with the specification.

1.6 This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

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:*

~~B 557 Test Methods of Tension Testing Wrought 221 Specification for Aluminum and Cast Aluminum- and Magnesium-Alloy Products~~ Aluminum-Alloy Extruded Bars, Rods, Wires, Profiles, And Tubes³

B 557M Test Methods of Tension Testing Wrought and Cast Aluminum- and Magnesium-Alloy Products (Metric)³

~~B 597 Practice for Heat Treatment~~ 557M Test Methods of Tension Testing Wrought and Cast Aluminum and Magnesium Alloy Products [Metric]³

B 647 Test Method for Indentation Hardness of Aluminum Alloys by Means of a Webster Hardness Gage³

B 648 Test Method for Indentation Hardness of Aluminum Alloys by Means of a Barcol Impressor³

B 660 Practices for Packaging/Packing of Aluminum and Magnesium Products³

B 666/B 666M Practice for Identification Marking of Aluminum Products³

B 807 Practice for Extrusion Press Solution Heat Treatment for Aluminum Alloys³

B 881 Terminology Relating to Aluminum- and Magnesium-Alloy Products³

B 918 Practice for Heat Treatment of Wrought Aluminum Alloys³

D 3951 Practice for Commercial Packaging⁴

E 18 Test Methods for Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials⁵

² For ASME Boiler and Pressure Vessel Code applications see related Specification SB-308 in Section II of that Code.

³ Annual Book of ASTM Standards, Vol 02.02.

⁴ Annual Book of ASTM Standards, Vol 03.01, 15.09.

⁵ Annual Book of ASTM Standards, Vol 14.02, 03.01.

*A Summary of Changes section appears at the end of this standard.