



Standard Specification for Aluminum and Aluminum-Alloy Die Forgings, Hand Forgings, and Rolled Ring Forgings (Metric)¹

This standard is issued under the fixed designation B247M; 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.

1. Scope*

1.1 This specification covers aluminum-alloy (**Note 1**) die forgings, hand forgings, and rolled ring forgings as shown in **Tables 2-4** and in **Section 10** for heat-treatable alloy forgings supplied in the F and O1 tempers. The maximum thicknesses for forgings within the scope of this specification are as indicated in those tables.

NOTE 1—Throughout this specification use of the term *alloy* in the general sense includes aluminum as well as aluminum alloy.

NOTE 2—For forging stock supplied as rolled or cold-finished bar or rod see Specification **B211M**. For forging stock supplied as extruded bar or rod see Specification **B221M**.

1.2 Alloy and temper designations are in accordance with ANSI H35.1/H35.1(M). The equivalent Unified Numbering System alloy designations are those of **Table 1** preceded by A9, for example, A91100 for aluminum 1100 in accordance with Practice **E527**.

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

1.4 This specification is the SI companion to Specification **B247**.

2. Referenced Documents

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

2.2 *ASTM Standards*:²

B211 Specification for Aluminum and Aluminum-Alloy Rolled or Cold Finished Bar, Rod, and Wire

B221 Specification for Aluminum and Aluminum-Alloy Ex-

truded Bars, Rods, Wire, Profiles, and Tubes
B247 Specification for Aluminum and Aluminum-Alloy Die Forgings, Hand Forgings, and Rolled Ring Forgings
B557M Test Methods for Tension Testing Wrought and Cast Aluminum- and Magnesium-Alloy Products (Metric)
B594 Practice for Ultrasonic Inspection of Aluminum-Alloy Wrought Products
B660 Practices for Packaging/Packing of Aluminum and Magnesium Products
B881 Terminology Relating to Aluminum- and Magnesium-Alloy Products
B918 Practice for Heat Treatment of Wrought Aluminum Alloys
B985 Practice for Sampling Aluminum Ingots, Billets, Castings and Finished or Semi-Finished Wrought Aluminum Products for Compositional Analysis
E10 Test Method for Brinell Hardness of Metallic Materials
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
E165 Practice for Liquid Penetrant Examination for General Industry
E527 Practice for Numbering Metals and Alloys in the Unified Numbering System (UNS)
E607 Test Method for Atomic Emission Spectrometric Analysis Aluminum Alloys by the Point to Plane Technique Nitrogen Atmosphere (Withdrawn 2011)³
E716 Practices for Sampling and Sample Preparation of Aluminum and Aluminum Alloys for Determination of Chemical Composition by Spectrochemical Analysis
E1004 Test Method for Determining Electrical Conductivity Using the Electromagnetic (Eddy-Current) Method
E1251 Test Method for Analysis of Aluminum and Aluminum Alloys by Spark Atomic Emission Spectrometry
G47 Test Method for Determining Susceptibility to Stress-Corrosion Cracking of 2XXX and 7XXX Aluminum Alloy Products

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 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.

³ The last approved version of this historical standard is referenced on www.astm.org.