



## Standard Specification for Aluminum-Alloy Sand Castings<sup>1</sup>

This standard is issued under the fixed designation B 26/B 26M; 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. Scope\*

1.1 This specification<sup>2</sup> covers aluminum-alloy sand castings designated as shown in Table 1.

1.2 This specification is not intended for aluminum-alloy sand castings used in aerospace applications.

1.3 Alloy and temper designations are in accordance with ANSI H35.1 and H35.1M. Unified Numbering System alloy designations are in accordance with Practice E 527.

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

1.5 For acceptance criteria for inclusion of new aluminum and aluminum alloys and their properties in this specification, see Annex A1 and Annex A2.

1.6 The values stated in either inch-pound units 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.

1.7 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 date of material purchase form a part of this specification to the extent referenced herein:

#### 2.2 ASTM Standards:

B 179 Specification for Aluminum Alloys in Ingot and Molten Forms for Castings from All Casting Processes<sup>3</sup>

B 275 Practice for Codification of Certain Nonferrous Metals and Alloys, Cast and Wrought<sup>3</sup>

B 557 Test Methods for Tension Testing Wrought and Cast Aluminum- and Magnesium-Alloy Products<sup>3</sup>

B 557M Test Methods for Tension Testing Wrought and Cast Aluminum- and Magnesium-Alloy Products [Metric]<sup>3</sup>

B 660 Practices for Packaging/Packing of Aluminum and Magnesium Products<sup>3</sup>

B 881 Terminology Relating to Aluminum- and Magnesium-Alloy Products<sup>3</sup>

B 917/B 917M Practice for Heat Treatment of Aluminum-Alloy Castings from All Processes<sup>3</sup>

D 3951 Practice for Commercial Packaging<sup>4</sup>

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications<sup>5</sup>

E 34 Test Methods for Chemical Analysis of Aluminum and Aluminum Base-Alloys<sup>6</sup>

E 88 Practice for Sampling Nonferrous Metals and Alloys in Cast Form for Determination of Chemical Composition<sup>6</sup>

E 94 Guide for Radiographic Testing<sup>7</sup>

E 155 Reference Radiographs for Examination of Aluminum and Magnesium Castings<sup>7</sup>

E 165 Test Method for Liquid Penetrant Examination<sup>7</sup>

E 527 Practice for Numbering Metals and Alloys (UNS)<sup>8</sup>

E 607 Test Method for Optical Emission Spectrometric Analysis of Aluminum and Aluminum Alloys by the Point-to-Plane Technique, Nitrogen Atmosphere<sup>6</sup>

E 716 Practices for Sampling Aluminum and Aluminum Alloys for Spectrochemical Analysis<sup>6</sup>

E 1251 Test Method for Optical Emission Spectrometric Analysis of Aluminum and Aluminum Alloys by the Argon Atmosphere, Point-to-Plane, Unipolar Self-Initiating Capacitor Discharge<sup>6</sup>

IEEE/ASTM SI 10 Standard for Use of the International System of Units (SI): The Modern Metric System<sup>5</sup>

#### 2.3 AMS Standard:

AMS 2771 Heat Treatment of Aluminum Alloy Castings<sup>9</sup>

#### 2.4 American National Standards:

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee B07 on Light Metals and Alloys and is the direct responsibility of Subcommittee B07.01 on Aluminum Alloy Ingots and Castings.

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<sup>2</sup> For ASME Boiler and Pressure Vessel Code applications see related Specification SB-26/SB-26M in Section II of that Code.

<sup>3</sup> Annual Book of ASTM Standards, Vol 02.02.

<sup>4</sup> Annual Book of ASTM Standards, Vol 15.09.

<sup>5</sup> Annual Book of ASTM Standards, Vol 14.02.

<sup>6</sup> Annual Book of ASTM Standards, Vol 03.05.

<sup>7</sup> Annual Book of ASTM Standards, Vol 03.03.

<sup>8</sup> Annual Book of ASTM Standards, Vol 01.01.

<sup>9</sup> Available from Society of Automotive Engineers (SAE), 400 Commonwealth Dr., Warrendale, PA 15096-0001.

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