



Designation: B 209 – 01

Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate¹

This standard is issued under the fixed designation B 209; 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 specification² covers aluminum and aluminum-alloy flat sheet, coiled sheet, and plate, in the alloys (Note 1) and tempers shown in Tables 2 and 3, and in the following finishes:

1.1.1 Plate in all alloys and sheet in heat-treatable alloys: mill finish.

1.1.2 Sheet in nonheat-treatable alloys: mill finish, one-side bright mill finish, standard one-side bright finish, and standard two-sides bright finish.

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

NOTE 2—See Specification B 632 for tread plate.

1.2 Alloy and temper designations are in accordance with ANSI H35.1. 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 E 527.

1.3 A complete metric companion to Specification B 209 has been developed—B 209M; therefore, no metric equivalents are presented in this specification.

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

2. Referenced Documents

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

2.2 ASTM Standards:

B 548 Method for Ultrasonic Inspection of Aluminum-Alloy Plate for Pressure Vessels³

B 557 Test Methods of Tension Testing Wrought and Cast Aluminum- and Magnesium-Alloy Products³

B 594 Practice for Ultrasonic Inspection of Aluminum-Alloy Wrought Products for Aerospace Applications³

B 597 Practice for Heat Treatment of Aluminum Alloys³

B 660 Practices for Packaging/Packing of Aluminum and

Magnesium Products³

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

E 3 Methods of Preparation of Metallographic Specimens⁴

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications⁵

E 34 Test Methods for Chemical Analysis of Aluminum and Aluminum-Base Alloys⁶

E 55 Practice for Sampling Wrought Nonferrous Metals and Alloys for Determination of Chemical Composition⁶

E 227 Test Method for Optical Emission Spectrometric Analysis of Aluminum and Aluminum Alloys by the Point-to-Plane Technique⁶

E 290 Test Method for Semi-Guided Bend Test for Ductility of Metallic Materials⁴

E 407 Test Methods for Microetching Metals and Alloys⁴

E 527 Practice for Numbering Metals and Alloys (UNS)⁷

E 607 Test Method for Optical Emission Spectrometric Analysis of Aluminum and Aluminum Alloys by the Point-to-Plane Technique, Nitrogen Atmosphere⁸

E 716 Practices for Sampling Aluminum and Aluminum Alloys for Spectrochemical Analysis⁸

E 1004 Test Method for Electromagnetic (Eddy-Current) Measurements of Electrical Conductivity⁹

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 Discharge⁸

G 34 Test Method for Exfoliation Corrosion Susceptibility in 7XXX Series Copper-Containing Aluminum Alloys (Exco Test)¹⁰

G 47 Test Method for Determining Susceptibility to Stress-Corrosion Cracking of High Strength Aluminum Alloy Products¹¹

G 66 Test Method for Visual Assessment of Exfoliation

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 ASME Boiler and Pressure Vessel Code applications see related Specification SB-209 in Section II of that Code.

³ *Annual Book of ASTM Standards*, Vol 02.02.

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

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

⁶ *Annual Book of ASTM Standards*, Vol 03.05.

⁷ *Annual Book of ASTM Standards*, Vol 01.01.

⁸ *Annual Book of ASTM Standards*, Vol 03.06.

⁹ *Annual Book of ASTM Standards*, Vol 03.03.

¹⁰ The applicable edition in the use of this specification is G 34-72, which is available in the Related Materials section (gray pages) of the *Annual Book of ASTM Standards*, Vol 02.02.

¹¹ *Annual Book of ASTM Standards*, Vol 03.02.

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