



Designation: B 928 – 03

Standard Specification for High Magnesium Aluminum-Alloy Sheet and Plate for Marine Service¹

This standard is issued under the fixed designation B 928; 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.

1. Scope

1.1 This specification covers high magnesium (Note 1) marine application aluminum-alloy (Note 2), in those alloy-tempers shown in Table 2 [Table 3], for flat sheet, coiled sheet, and plate, in the mill finish:

NOTE 1—The term high magnesium in the general sense includes those alloys containing 3 % or more nominal magnesium.

NOTE 2—Throughout this specification use of the term alloy in the general sense includes aluminum as well as aluminum alloy.

1.2 Alloy and temper designations are in accordance with ANSI H35.1 [H35.1M]. The equivalent Unified Numbering System alloy designations are those of Table 1 preceded by A9, for example, A95083 for 5083 in accordance with Practice E 527.

1.3 The values stated in either SI units 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 each other. Combining values from the two systems may result in non-conformance with the standard.

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 557 Test Methods of Tension Testing Wrought and Cast Aluminum- and Magnesium-Alloy Products²

B 557M Test Methods of Tension Testing Wrought and Cast Aluminum- and Magnesium-Alloy Products [Metric]²

B 660 Practices for Packaging/Packing of Aluminum and Magnesium Products²

B 666/B 666M Practice for Identification Marking of Aluminum and Magnesium Products²

B 881 Terminology Related to Aluminum- and Magnesium-Alloy Products²

E 3 Practice for Preparation of Metallographic Specimens³

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications⁴

E 34 Test Methods for Chemical Analysis of Aluminum and Aluminum-Base Alloys⁵

E 55 Practice for Sampling Wrought Nonferrous Metals and Alloys for Determination of Chemical Composition⁵

E 407 Test Methods for Microetching Metals and Alloys³

E 527 Practice for Numbering Metals and Alloys (UNS)⁶

E 607 Test Method for Atomic Emission Spectrometric Analysis Aluminum Alloys by the Point-to-Plane Technique, Nitrogen Atmosphere⁵

E 716 Practices for Sampling Aluminum and Aluminum Alloys for Spectrochemical Analysis⁵

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 Discharge⁵

G 66 Test Method for Visual Assessment of Exfoliation Corrosion Susceptibility of 5xxx Series Aluminum Alloys (ASSET Test)⁷

G 67 Test Method for Determining the Susceptibility to Intergranular Corrosion of 5xxx Series Aluminum Alloys by Mass Loss After Exposure to Nitric Acid (NAML Test)⁷

2.3 ANSI Standards:

H35.1 Alloy and Temper Designation Systems for Aluminum⁸

H35.1(M) Alloy and Temper Designation Systems for Aluminum⁸

H35.2 Dimensional Tolerances for Aluminum Mill Products⁸

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.

Current edition approved July 10, 2003. Published October 2003.

² Annual Book of ASTM Standards, Vol 02.02.

³ Annual Book of ASTM Standards, Vol 03.01.

⁴ Annual Book of ASTM Standards, Vol 14.02.

⁵ Annual Book of ASTM Standards, Vol 03.05.

⁶ Annual Book of ASTM Standards, Vol 01.01.

⁷ Annual Book of ASTM Standards, Vol 03.02.

⁸ Available in the Related Materials section (gray pages) of the Annual Book of ASTM Standards, Vol 02.02.