



Designation: B1022 – 22

Standard Specification for Zinc-Aluminum-Magnesium Alloys in Ingot Form for Coating Steel Sheet by the Hot-Dip Process¹

This standard is issued under the fixed designation B1022; 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 reappraisal. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reappraisal.

1. Scope

1.1 This specification covers commercial zinc-aluminum-magnesium alloys in ingot form for remelting for the coating of steel sheet as specified in [Table 1](#), and referenced in Specifications [A875/A875M](#) and [A1046/A1046M](#).

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.3 *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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:²

[A875/A875M](#) Specification for Steel Sheet, Zinc-5 % Aluminum Alloy-Coated by the Hot-Dip Process

[A902](#) Terminology Relating to Metallic Coated Steel Products

[A1046/A1046M](#) Specification for Steel Sheet, Zinc-Aluminum-Magnesium Alloy-Coated by the Hot-Dip Process

[B897](#) Specification for Configuration of Zinc and Zinc Alloy Jumbo, Block, Half Block, and Slab Ingot

[B899](#) Terminology Relating to Non-ferrous Metals and Alloys

[B914](#) Practice for Color Codes on Zinc and Zinc Alloy Ingot for Use in Hot-Dip Galvanizing of Steel

[B949](#) Specification for General Requirements for Zinc and Zinc Alloy Products

[E29](#) Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications

[E527](#) Practice for Numbering Metals and Alloys in the Unified Numbering System (UNS)

[E536](#) Test Methods for Chemical Analysis of Zinc and Zinc Alloys

2.2 ISO Standards:³

[ISO 3815–1](#) Zinc and zinc alloys — Part 1: Analysis of solid samples by optical emission spectrometry

[ISO 3815–2](#) Zinc and zinc alloys — Part 2: Analysis by inductively coupled plasma optical emission spectrometry

2.3 SAE Standards:⁴

[SAE 1086](#) Numbering Metals and Alloys

3. Terminology

3.1 Terms shall be defined in accordance with Terminology [B899](#).

3.2 See Terminology [A902](#) for definitions of general terminology relating to metallic-coated hot-dip products.

4. Ordering Information (see Specification [B949](#))

4.1 Customers may order an alloy type and specify a target level for aluminum or magnesium within the minimum and maximum for the type listed in [Table 1](#). The acceptable composition range that may be specified is listed as the tolerance in [Table 1](#).

5. Materials and Manufacture

5.1 See Specification [B949](#).

¹ This specification is under the jurisdiction of ASTM Committee [B02](#) on Nonferrous Metals and Alloys and is the direct responsibility of Subcommittee [B02.04](#) on Zinc and Cadmium.

Current edition approved April 1, 2022. Published April 2022. DOI: 10.1520/B1022-22.

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 Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

⁴ Available from SAE International (SAE), 400 Commonwealth Dr., Warrendale, PA 15096, <http://www.sae.org>.