



Designation: B960 – 18 (Reapproved 2022)

## Standard Specification for Prime Western Grade-Recycled (PWG-R) Zinc<sup>1</sup>

This standard is issued under the fixed designation B960; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This specification covers prime western grade-recycled (PWG-R) zinc made by recycling zinc secondary materials including but not limited to drosses and skimmings.

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 become familiar with all hazards including those identified in the appropriate Safety Data Sheet (SDS) for this product/material as provided by the manufacturer, 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 The following documents of the issue in effect on the date of material purchase form a part of this specification to the extent referenced herein.

2.2 *ASTM Standards:*<sup>2</sup>

**B6** Specification for Zinc

**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

**E88** Practice for Sampling Nonferrous Metals and Alloys in Cast Form for Determination of Chemical Composition

**E527** Practice for Numbering Metals and Alloys in the Unified Numbering System (UNS)

**E536** Test Methods for Chemical Analysis of Zinc and Zinc Alloys

2.3 *ISO Standards:*<sup>3</sup>

**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

### 3. Terminology

3.1 Terms shall be defined in accordance with Terminology **B899**.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *Prime Western Grade-Recycled, n*—a grade of zinc containing 0.5 % to 1.4 % lead, a minimum or 98.5 % zinc, with controlled impurity levels as specified in **Table 1** made by recycling zinc secondary materials.

3.3 *Abbreviations:*

3.3.1 *PWG-R*—Prime Western Grade-Recycled Zinc

### 4. Ordering Information

4.1 See Specification **B949**.

### 5. Materials and Manufacture

5.1 The manufacturer shall use care to have each lot of zinc metal be as uniform in quality as possible.

### 6. Chemical Composition

6.1 The zinc metal shall conform to the requirements prescribed in **Table 1**.

<sup>1</sup> 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.

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<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

<sup>3</sup> Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.