Standard Specification for
Zinc Alloys in Ingot Form for Slush Casting

This standard is issued under the fixed designation B792; 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 commercial zinc alloys in ingot form for remelting for the manufacture of castings from the alloys as specified and designated as shown in Table 1.

1.2 Slush casting alloys are used primarily for the manufacture of hollow castings such as lighting fixtures, lamp bases, and small statues.

1.3 This specification covers two zinc alloys which are specified and designated as follows:

<table>
<thead>
<tr>
<th>UNS</th>
<th>ASTM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z34510</td>
<td>Slush Casting Alloy A</td>
</tr>
<tr>
<td>Z30500</td>
<td>Slush Casting Alloy B</td>
</tr>
</tbody>
</table>

1.4 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.

1.5 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 Material Safety Data Sheet (MSDS) for this product/material as provided by the manufacturer, 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 order acceptance form a part of this specification to the extent referenced herein:

2.2 ASTM Standards:

- B899 Terminology Relating to Non-ferrous Metals and Alloys

2.3 ISO Standards:

- 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.

4. Ordering Information

4.1 Orders for zinc alloy ingot under this specification shall include information as specified in Specification B949, Section 4.

5. Materials and Manufacture

5.1 The alloys may be made by any approved process.

5.2 The material covered by this specification shall be of uniform quality and shall be free from dross, slag, or other harmful contamination. The ingot shall also be reasonably free of surface corrosion and adhering foreign matter.

6. Chemical Requirements

6.1 Limits—This alloy shall conform to the requirements as to chemical composition Table 1.

6.2 Chemical requirement procedures shall be in compliance with the provisions of Specification B949, Section 5.2.

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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.


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.


*A Summary of Changes section appears at the end of this standard*
7. Sampling for Chemical Analysis

7.1 Sampling procedures shall be in compliance with the provisions of Specification B949, Section 6.

8. Method of Chemical Analysis

8.1 The determination of chemical composition shall be made in accordance with Test Methods E536, or ISO 3815-1, or ISO 3815-2 or other methods. In case of dispute, the results secured by Test Methods E536, or ISO 3815-1, or ISO 3815-2 shall be the basis of acceptance.

### Summary of Changes

Committee B02 has identified the location of selected changes to this standard since the last issue (B792 – 12) that may impact the use of this standard. (Approved February 1, 2013.)

1. A section on Source Inspection was reinstated after it had been incorrectly removed.

Committee B02 has identified the location of selected changes to this standard since the last issue (B792 – 09) that may impact the use of this standard. (Approved May 1, 2012.)

1. Revisions have been made to Sections 2, 4, 6, 7, 8, 9, 10, 11, 12, and 13 to reference Specification B949 and delete certain portions of these sections formerly a part of this standard.

2. The titles of Sections 7, 8, 10, 11, and 12 have been revised to be in agreement with a standard format for Subcommittee B02.04 standards.