



Designation: E 1277 – 9602

# Standard Test Method for Chemical Analysis of Zinc-5 % Aluminum-Mischmetal Alloys by ICP Emission Spectrometry<sup>1</sup>

This standard is issued under the fixed designation E 1277; 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 test method covers the chemical analysis of zinc alloys having chemical compositions within the following limits:

| Element   | Concentration Range, % |
|-----------|------------------------|
| Aluminum  | 3.0–8.0                |
| Antimony  | 0.002 max              |
| Cadmium   | 0.025 max              |
| Cerium    | 0.03–0.10              |
| Copper    | 0.10 max               |
| Iron      | 0.10 max               |
| Lanthanum | 0.03–0.10              |
| Lead      | 0.026 max              |
| Magnesium | 0.05 max               |
| Silicon   | 0.015 max              |
| Tin       | 0.002 max              |
| Titanium  | 0.02 max               |
| Zirconium | 0.02 max               |

1.2 Included are procedures for elements in the following concentration ranges:

| Element   | Concentration Range, % |
|-----------|------------------------|
| Aluminum  | 3.0–8.0                |
| Cadmium   | 0.0016–0.025           |
| Cerium    | 0.005–0.10             |
| Iron      | 0.0015–0.10            |
| Lanthanum | 0.009–0.10             |
| Lead      | 0.002–0.026            |

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 and health practices and determine the applicability of regulatory limitations prior to use.* Specific safety hazards statements are given in Section 7, 11.2, and 13.1.

## 2. Referenced Documents

2.1 *ASTM Standards:*

D 1193 Specification for Reagent Water<sup>2</sup>

<sup>1</sup> This test method is under the jurisdiction of ASTM Committee E-1 E01 on Analytical Chemistry for Metals, Ores, and Related Materials and is the direct responsibility of Subcommittee E01.05 on Zn, Sn, Pb, Be, and Other Metals.

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