



Designation: A363 – 03 (Reapproved 2020)^{ε1}

Standard Specification for Zinc-Coated (Galvanized) Steel Overhead Ground Wire Strand¹

This standard is issued under the fixed designation A363; 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.

^{ε1} NOTE—Editorial changes were made to 2.1 in February 2020.

1. Scope

1.1 This specification covers high-strength, extra-high-strength, and utilities grades of concentric lay steel wire strand composed of three wires or seven wires with Class A, Class B, or Class C zinc coatings specifically intended for use as overhead ground wires or static wires for electric power transmission lines.

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 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

A90/A90M Test Method for Weight [Mass] of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings
A902 Terminology Relating to Metallic Coated Steel Products
B6 Specification for Zinc

3. Terminology

3.1 *Definitions*—For definitions of terms used in this specification, refer to Terminology A902.

¹ This specification is under the jurisdiction of ASTM Committee A05 on Metallic-Coated Iron and Steel Products and is the direct responsibility of Subcommittee A05.12 on Wire Specifications.

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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.

4. Ordering Information

4.1 Orders for strand purchased under this specification shall include the following information:

- 4.1.1 Quantity of each size,
- 4.1.2 Size and grade of strand (Table 1), and
- 4.1.3 Class of zinc coating (Section 11 and Table 2).
- 4.1.4 ASTM designation and year of issue.

5. Materials and Manufacture

5.1 The base metal shall be steel produced by any commercially accepted steel making process and shall be of such quality and purity that when drawn to the size of wire specified and coated with zinc, the finished strand will have the properties and characteristics prescribed in this specification.

5.2 The slab zinc when used for the coating shall be any grade of zinc conforming to Specification B6.

6. Stranding

6.1 The strand shall have a left lay with a uniform pitch of not more than 16 times the nominal diameter of the strand. A left lay is defined as a counter-clockwise twist away from the observer. Stranding shall be sufficiently close to ensure no significant reduction in diameter when stressed to 10 % of the minimum breaking strength.

7. Preforming Strand

7.1 Preformed strand shall be supplied when so specified by the purchaser. Strand is preformed when the component wires are set to the helical form which they assume in the product by any means of process other than by merely laying them about the strand core.

8. Breaking Strength and Weight

8.1 The approximate weight per unit length of strand and the minimum breaking strength of the finished strand shall be as specified in Table 1.

8.2 A test in which the breaking strength is below the minimum specified and which may have been caused by the slipping of the specimen in the jaws of the testing machine, by