



Standard Specification for Metallic-Coated Steel Marcellled Tension Wire for Use With Chain Link Fence¹

This standard is issued under the fixed designation A 824; 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 metallic-coated carbon steel marcellled tension wire for use with chain-link fence. Three types of coatings are covered:

1.1.1 *Type I*—Aluminum-coated (aluminized), and

1.1.2 *Type II*—Zinc-coated (galvanized).

1.1.3 *Type III*—Zinc-5 % Aluminum Mischmetal (Zn5Al-MM) alloy-coated.

1.2 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.

2. Referenced Documents

2.1 ASTM Standards:

A 90/A90M Test Method for Weight (Mass) of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings²

A 370 Test Methods and Definitions for Mechanical Testing of Steel Products³

A 428 Test Method for Weight of Coating on Aluminum-Coated Iron or Steel Articles²

A 700 Practices for Packaging, Marking, and Loading Methods for Steel Products for Domestic Shipment⁴

A 902 Terminology Relating to Metallic-Coated Steel Products²

B 6 Specification for Zinc (Slab Zinc)⁵

B 750 Specification for Zinc-5 % Aluminum-Mischmetal Alloy (UNS Z 38510) in Ingot Form for Hot-Dip Coatings⁵

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications⁶

E 47 Test Methods for Chemical Analysis of Zinc Die-Casting Alloys⁷

E 536 Test Method for Chemical Analysis of Zinc and Zinc Alloys⁸

E 1277 Test Method for Chemical Analysis of Zinc-5 % Aluminum Mischmetal Alloys by the ICP Argon Plasma Spectrometric Method⁸

2.2 *International Lead Zinc Research Organization (IL-ZRO) Standard:*

GF-1 Standard Practice for Determination of Cerium and Lanthanum Compositions in Galfan Alloy (5 % Al-0.04 % La-0.04 % Ce Bal SHG Zn)⁹

3. Terminology

3.1 Definitions:

3.1.1 For definitions of terms used in this specification, refer to Terminology A 902.

3.2 *Descriptions of Terms Specific to This Standard:* Description of Term Specific to This Standard:

3.2.1 *marcelling*—a process whereby either a uniform helix or a series of waves is put in a wire to facilitate tensioning the wire when installed to support the top or bottom, or both, of the chain-link fabric (see 5.2.1).

4. Ordering Information

4.1 Orders for metallic-coated steel tension wire should include the following information:

4.1.1 Quantity (expressed in number of coils),

4.1.2 Name of product,

4.1.3 Type of coating (see 5.3),

4.1.4 Class of coating if applicable (see 5.3.2 and 5.3.3),

4.1.5 Packaging requirements (see Section 14),

4.1.6 Certification or test report, or both, if specified (see Section 13), and

4.1.7 ASTM designation and year of issue.

NOTE 1—A typical ordering description is as follows: 20 coils metallic-coated steel tension wire, Type II, Class 2, in 100-lb coils, to ASTM A 824 – ____.

5. Materials and Manufacture

5.1 The steel rod from which the wire is drawn shall be manufactured by the open-hearth, electric-furnace, or basic-oxygen process.

⁸ Annual Book of ASTM Standards, Vol 03.06.

⁹ Available from International Lead Zinc Research Organization, P.O. Box 12036, Research Triangle Park, NC 27709.

¹ This specification is under the jurisdiction of ASTM Committee A-5 on Metallic Coated Iron and Steel Products and is the direct responsibility of Subcommittee A05.12 on Wire Specifications.

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² Annual Book of ASTM Standards, Vol 01.06.

³ Annual Book of ASTM Standards, Vol 01.03.

⁴ Annual Book of ASTM Standards, Vol 01.05.

⁵ Annual Book of ASTM Standards, Vol 02.04.

⁶ Annual Book of ASTM Standards, Vol 14.02.

⁷ Annual Book of ASTM Standards, Vol 03.05.