
Standard Specification for Metallic-Coated (Carbon) Steel Barbed Wire

AASHTO Designation: M 280-20

Technical Subcommittee: 4d, Safety Devices

Release: Group 2 (June)

ASTM Designation: [A121-13](#)



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1. SCOPE

- 1.1. This specification covers metallic-coated steel barbed wire, consisting of a strand of two wires.
- 1.2. The barbed wire is available with aluminum, zinc, and zinc-5 percent aluminum-mischmetal alloy coatings, with a number of coating weights, in a number of different construction (designs), and in two grades. Not all designs are available in all coating types.
- 1.3. The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.
- 1.4. The text of this specification references notes and footnotes that provide explanatory information. These notes and footnotes (excluding those in tables) shall not be considered as requirements of the specification.

2. REFERENCED DOCUMENTS

- 2.1. *ASTM Standards:*
 - [A90/A90M](#), Standard Test Method for Weight [Mass] of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings
 - [A428/A428M](#), Standard Test Method for Weight [Mass] of Coating on Aluminum-Coated Iron or Steel Articles
 - [A641/A641M](#), Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire
 - [A700](#), Standard Guide for Packaging, Marking, and Loading Methods for Steel Products for Shipment
 - [A809](#), Standard Specification for Aluminum-Coated (Aluminized) Carbon Steel Wire
 - [A856/A856M](#), Standard Specification for Zinc-5% Aluminum-Mischmetal Alloy-Coated Carbon Steel Wire
 - [A902](#), Standard Terminology Relating to Metallic Coated Steel Products
- 2.2. *IEEE/ASTM Standard:*
 - SI10, American National Standard for Metric Practice
- 2.3. *Federal Standard:*
 - Fed. Std. 123, Marking for Shipment (Civil Agencies)

- 2.4. *Military Standards:*
- MIL-STD-129, Marking for Shipment and Storage
 - MIL-STD-163, Steel Mill Products Preparation for Shipment and Storage

3. TERMINOLOGY

- 3.1. *Definitions*—For definitions of terms used in this specification, refer to Terminology, [ASTM A902](#).

4. CLASSIFICATION

- 4.1. The barbed wire covered by this specification is classified as described in this section.
- 4.2. *Design Number*—Numbers describing standard sizes and constructions, as listed in Table 1.
- 4.3. *Metallic Coating Type:*
- 4.3.1. *Coating Type A*—Made from aluminum-coated strand wire.
- 4.3.2. *Coating Type Z*—Made from zinc-coated strand wire.
- 4.3.3. *Coating Type ZA*—Made from zinc-5 percent aluminum-mischmetal alloy (Zn-5Al-MM) coated strand wire.
- 4.4. *Metallic Coating Class*—The specified amount of coating (coating weight [mass]) on the strand wire.
- 4.4.1. For coating Type A, see Section 6.3 (only one coating weight for each wire size).
- 4.4.2. For coating Type Z, see Table 2.
- 4.4.3. For coating Type ZA, see Table 3.
- 4.5. *Grades:*
- 4.5.1. *Standard Grade*—Barbs spaced on 4- or 5-in. (102- or 127-mm) centers as indicated in Table 1.
- 4.5.2. *High-Security Grade*—Barbs spaced on 3-in. (76-mm) centers with Coating Type A only.
- Note 1**—The design numbers are related to the characteristics of the construction of the barbed wire, with the number groups related, in order, to the steel wire gauge of the strand wires, number of barb points, spacing of barbs, steel wire gauge of the barbs, and a letter indicating the shape of the barbs.

5. ORDERING INFORMATION

- 5.1. *Orders for material under this specification shall include the following information, as necessary, to describe the desired product:*
- 5.1.1. Name of the material (steel barbed wire);
- 5.1.2. Quantity (number of spools and length of barbed wire on each, or total length) (see Section 7.5 for standard size of spools);