Designation: B500/B500M – 10

Standard Specification for Metallic Coated Stranded Steel Core for Use in Overhead Electrical Conductors[1]

This standard is issued under the fixed designation B500/B500M; 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 7-wire, 19-wire, 37-wire, and 61-wire zinc-coated (galvanized), zinc-5 % aluminum-mischmetal alloy-coated stranded steel core intended for use in overhead electrical conductors.

1.2 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

2. Referenced Documents

2.1 *ASTM Standards:*[2]

B498/B498M Specification for Zinc-Coated (Galvanized) Steel Core Wire for Use in Overhead Electrical Conductors

B957 Specification for Extra-High-Strength and Ultra-High-Strength Zinc-Coated (Galvanized) Steel Core Wire for Overhead Electrical Conductors

B958 Specification for Extra-High-Strength and Ultra-High-Strength Class A Zinc–5% Aluminum-Mischmetal Alloy-Coated Steel Core Wire for Use in Overhead Electrical Conductors

B606 Specification for High-Strength Zinc-Coated (Galvanized) Steel Core Wire for Aluminum and Aluminum-Alloy Conductors, Steel Reinforced

B802/B802M Specification for Zinc–5 % Aluminum-Mischmetal Alloy-Coated Steel Core Wire for Aluminum Conductors, Steel Reinforced (ACSR)

B803 Specification for High-Strength Zinc–5 % Aluminum-Mischmetal Alloy-Coated Steel Core Wire for Use in Overhead Electrical Conductors

E83 Practice for Verification and Classification of Extensometer Systems

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *lot*—unless otherwise specified in the contract or order, a lot shall consist of all coils or reels of strand of the same diameter and unit lengths submitted for inspection at the same time.

3.1.2 *production lot*—all of the wire spools loaded into a stranding machine that are used to produce a completed strand cable.

4. Ordering Information

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

4.1.1 Length of each construction,

4.1.2 Constructional description of stranded core (for example, 7 × 0.0943 in. or 19 × 0.0977 in.) (8.1 and 8.2),

4.1.3 The multiple length of stranded core and the total number of multiple lengths per reel, if allowed (8.3 and Section 15),

4.1.4 Strength and coating type (Section 8),

4.1.5 Direction of lay of outer layer (Section 7),

4.1.6 Packaging (Section 15), and

4.1.7 Place of inspection (Section 13).

5. Material

5.1 The coated steel wire used in the production of the stranded core shall, prior to stranding, meet all of the requirements of the appropriate specification that follows:

5.1.1 Specification B498/B498M,

5.1.2 Specification B606,

5.1.3 Specification B802/B802M, and

5.1.4 Specification B803.

5.1.5 Specification B957.

[1] This specification is under the jurisdiction of ASTM Committee B01 on Electrical Conductors and is the direct responsibility of Subcommittee B01.05 on Conductors of Ferrous Metals.

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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.

***A Summary of Changes section appears at the end of this standard.**