



Designation: B 856 – 01

Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Coated Steel Supported (ACSS)¹

This standard is issued under the fixed designation B 856; 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 round wire concentric-lay-stranded aluminum conductors, steel supported (ACSS) for use as overhead electrical conductors (see Explanatory Note 1).

1.2 The values stated in inch-pound or SI units are to be regarded separately as standard. Each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the specification. For conductor sizes designated by AWG or kcmil sizes, the requirements in SI units are numerically converted from the corresponding requirements in inch-pound units. For conductor sizes designation by AWG or kcmil, the requirements in SI units have been numerically converted from corresponding values stated or derived in inch-pound units. For conductor sizes designated by SI units only, the requirements are stated or derived in SI units.

1.2.1 For density, resistivity and temperature, the values stated in SI units are to be regarded as standard.

2. Referenced Documents

2.1 The following documents of the issue in effect on date of material purchase form part of this specification to the extent referenced herein:

2.2 ASTM Standards:

B 263 Test Method for Determination of Cross-Sectional Area of Stranded Conductors²

B 341 Specification for Aluminum-Coated (Aluminized) Steel Core Wire for Aluminum Conductors, Steel Reinforced (ACSR/AZ)²

B 354 Terminology Relating to Uninsulated Metallic Electrical Conductors²

B 498 Specification for Zinc-Coated (Galvanized) Steel Core Wire for Aluminum Conductors, Steel Reinforced (ACSR)²

B 500 Specification for Metallic Coated Stranded Steel Core for Aluminum Conductors, Steel Reinforced (ACSR)²

B 502 Specification for Aluminum-Clad Steel Core Wire for Aluminum Conductors, Aluminum-Clad Steel Reinforced²

B 549 Specification for Concentric-Lay-Stranded Aluminum Conductors, Aluminum-Clad Steel Reinforced ACSR/AW²

B 606 Specification for High-Strength Zinc-Coated (Galvanized) Steel Core Wire for Aluminum and Aluminum-Alloy Conductors, Steel Reinforced²

B 609 Specification for Aluminum 1350 Round Wire, Annealed and Intermediate Tempers, for Electrical Purposes²

B 802 Specification for Zinc-5 % Aluminum-Mischmetal Alloy-Coated Steel Core Wire for Aluminum Conductors, Steel Reinforced (ACSR)²

B 803 Specification for High-Strength Zinc-5 % Aluminum-Mischmetal Alloy-Coated Steel Core Wire for Aluminum and Aluminum-Alloy Conductors, Steel Reinforced²

B 857 Specification for Shaped Wire Compact Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Supported (ACSS/TW)²

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications³

E 527 Practice for Numbering Metals and Alloys (UNS)⁴

2.3 Other Standards:

Aluminum Association Publication 50— Code words for Overhead Aluminum Electrical Conductors⁵

NBS *Handbook 100*—Copper Wire Tables of the National Bureau of Standards⁶

3. Terminology

3.1 For definitions of terms relating to conductors refer to definitions found in Specification B 354.

3.2 Definitions:

3.2.1 *aluminized*—aluminum coated.

3.2.2 *aluminum-clad*—aluminum sheathed.

3.2.3 *galvanized*—zinc coated.

3.3 Abbreviations:Abbreviations:

¹ This specification is under the jurisdiction of ASTM Committee B01 on Electrical Conductors and is the direct responsibility of Subcommittee B01.07 on Conductors of Light Metals.

Current edition approved Mar. 10, 2001. Published May 2001. Originally published as B 856-95⁴. Last previous edition B 856-95⁴.

² *Annual Book of ASTM Standards*, Vol 02.03.

³ *Annual Book of ASTM Standards*, Vol 14.02.

⁴ *Annual Book of ASTM Standards*, Vol 01.01.

⁵ Available from the Aluminum Association, Inc., 900 19th Street, NW, Suite 300, Washington, DC 2006.

⁶ Available from National Technical Information Services, 5285 Port Royal Road, Springfield, VA 22161.