



Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Coated- Steel Reinforced (ACSR)¹

This standard is issued under the fixed designation B 232/B 232M; 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 (€) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the Department of Defense.

^{€1} NOTE—In Table 1, the code word for the 795 000 (24/7) construction was editorially corrected to “Cuckoo.”

1. Scope

1.1 This specification covers concentric-lay-stranded conductors made from round aluminum 1350-H19 (extra hard) wires and round, coated steel core wire(s) for use as overhead electrical conductors (Explanatory Note 1 and Explanatory Note 2).

1.2 ACSR covered by this specification has nine types of coated steel core wire which are designated by abbreviations as follows (Explanatory Note 2):

1.2.1 ACSR/GA-ACSR using Class A zinc-coated steel wire,

1.2.2 ACSR/GB-ACSR using Class B zinc-coated steel wire,

1.2.3 ACSR/GC-ACSR using Class C zinc-coated steel wire,

1.2.4 ACSR/MA-ACSR using Class A Zn-5A1-MM coated steel wire,

1.2.5 ACSR/MB-ACSR using Class B Zn-5A1-MM coated steel wire,

1.2.6 ACSR/MC-ACSR using Class C Zn-5A1-MM coated steel wire,

1.2.7 ACSR/HS-ACSR using Class A zinc-coated high-strength steel wires,

1.2.8 ACSR/MS-ACSR using Class A Zn-5A1-MM coated high-strength steel wires, and

1.2.9 ACSR/AZ-ACSR using aluminum-coated (aluminized) steel wire.

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

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

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.

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NOTE 1—The aluminum and temper designations conform to ANSI Standard H35.1/H35.1M; Aluminum 1350 corresponds to UNS No. A91350 in accordance with Practice E 527.

2. Referenced Documents

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

2.2 ASTM Standards:

B 230/B 230M Specification for Aluminum 1350-H19 Wire for Electrical Purposes²

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

B 341/B 341M 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/B 498M 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 606 Specification for High-Strength Zinc-Coated (Galvanized) Steel Core Wire for Aluminum and Aluminum-Alloy Conductors, Steel Reinforced²

B 682 Specification for Standard Metric Sizes of Electrical Conductors²

B 802/B 802M 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

E 29 Practice for Using Significant Digits in Test Data to

² Annual Book of ASTM Standards, Vol 02.03.