



Designation: B 836 – 9800

Standard Specification for Compact Round Stranded Aluminum Conductors Using Single Input Wire Construction¹

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1. Scope

1.1 This specification covers aluminum/single input wire (SIW) stranded conductors made from round or shaped wires for use in covered or insulated electrical ~~conductors, wires or cables~~. These conductors shall be composed of one or more roller or die compacted layers of helically applied wires (Explanatory Note 1, ~~Explanatory Note 2~~, and Explanatory Note ~~2~~ 3).

1.2 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.

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

~~NOTE 1—For the purposes of this specification, SIW construction is defined as follows: “a stranded conductor design methodology that varies the number of wires within a range of conductor sizes in order to permit that range of conductor sizes to be constructed from a single wire size. See Explanatory Note 2.~~

~~1.2 The SI values for density are to be regarded as the standard. For all other properties, inch-pound values are to be regarded as the standard, and the SI units may be approximate.~~

~~NOTE 2—The 1—The~~ aluminum and temper designations conform to ANSI H35.1. Aluminum 1350 and Aluminum-Alloy 8XXX correspond to Unified Numbering System A91350 and A98XXX, 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:*

¹ This specification is under the jurisdiction of ASTM Committee B-1 on Electrical Conductors and is the direct responsibility of Subcommittee B01.04 on Conductors of Copper and Copper Alloys.

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