



Designation: B 901 – 014

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

This standard is issued under the fixed designation B 901; 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 aluminum 1350-H19 (extra hard), 1350-H16 or -H26 ($\frac{3}{4}$ hard), 1350-H14 or -H24 ($\frac{1}{2}$ hard), 1350-H142 or -H242 ($\frac{1}{2}$ hard), and aluminum alloy 8XXX series as listed in Specification B 800 for tempers “O” and H1X or H2X, bare stranded conductors composed of one or more roller shaped or die compressed layers of helically layed wires. The conductors are for general use for electrical purposes (Explanatory Notes 1 and 2).

NOTE 1—For the purposes of this specification, single input wire (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.

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 2—Prior to 1975, aluminum 1350 was designated as EC aluminum.

NOTE 3—The aluminum and temper designations conform to ANSI H35.1. Aluminum 1350 corresponds to Unified Numbering System A91350 in accordance with Practice E 527. Aluminum alloys in the 8000 series correspond to Unified Numbering System A98XXX in accordance with Practice E 527.

NOTE 4—This specification also permits conductors for use as covered or insulated electrical conductors.

NOTE 5—Sealed conductors, which are intended to prevent longitudinal water propagation and are further covered/insulated, are also permitted within the guidelines of this specification.

2. Referenced Documents

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

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

Current edition approved Oct. 10, 2001; April 1, 2004. Published November 2001; April 2004. Originally published as B 901 – 00; approved in 2000. Last previous edition approved in 2001 as B 901 – 001.