



Designation: B 784 – 001

Standard Specification for Modified Concentric-Lay-Stranded Copper Conductors for Use in Insulated Electrical Cables¹

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1. Scope

1.1 This specification covers bare modified concentric-lay-stranded conductors made from round copper wires, either uncoated or coated with tin, lead, or lead alloy for general use in insulated electrical cables. These conductors shall be constructed with a central core consisting of not more than seven wires, surrounded by one or more layers of helically laid wires.

1.2 For the purposes of this specification, conductors are classified as follows (Explanatory Note 1 and Note 2):

1.2.1 *Class B Modified*—Conductors to be insulated with various materials such as rubber, paper, and crosslink polyethylene.

1.2.2 *Class C Modified and Class D Modified*—Conductors where greater flexibility is required than is provided by Class B Modified conductors.

1.3 ~~The SI values of density and resistivity stated in inch-pound or SI units are to be regarded separately as standard. Each system shall be used independently of the other. Combining the values from the two systems may result in non-conformance with the specification. For all other properties 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 designated 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 to be regarded as standard stated or derived in SI units.~~

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

NOTE 1—The significant differences in this specification from Specification B 8 are as follows: (1) The central core is permitted to contain up to seven wires drawn into the assembly with an infinite length of lay while Specification B 8 permits only one, and (2) The construction is applicable only to stranded assemblies of 19 or more wires.

2. Referenced Documents

2.1 The following documents of the issue in effect at the 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 B01 on Electrical Conductors and is the direct responsibility of Subcommittee B01.04 on Conductors of Copper and Copper Alloys.

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