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AMERICAN SOCIETY FOR TESTING AND MATERIALS
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Standard Specification for Cored, Annular, Concentric-Lay-Stranded Copper Conductors¹

This standard is issued under the fixed designation B 226; 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 cored, annular, concentric-lay-stranded conductors made from round soft copper wires, either uncoated or coated with tin, lead, or lead alloy for use as electrical conductors (Explanatory Note 1 and Note 2).

1.2 The constructions prescribed herein are suitable for bare conductors, or for conductors to be covered with weather-resistant (weather-proof) material, or for conductors to be insulated with rubber, varnished cloth, or impregnated paper, except types such as “oil-filled” or “gas-filled” (Explanatory Note 3).

1.3 Cored, annular conductor constructions not included in this specification shall be specifically agreed upon between the manufacturer and the purchaser when placing the order.

1.4 These constructions are not recommended for use as electric furnace leads where great flexibility is required and special conductor designs are indicated in consideration of the particular service requirements.

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

2. Referenced Documents

The following documents of the issue in effect at the time of reference form a part of these methods to the extent referenced herein:

2.1 ASTM Standards:

B 3 Specification for Soft or Annealed Copper Wire²

B 8 Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft²

B 33 Specification for Tinned Soft or Annealed Copper Wire for Electrical Purposes²

B 172 Specification for Rope-Lay-Stranded Copper Conductors Having Bunch-Stranded Members, for Electrical Conductors²

B 173 Specification for Rope-Lay-Stranded Copper Conductors Having Concentric-Stranded Members, for Electrical Conductors²

B 174 Specification for Bunch-Stranded Copper Conductors for Electrical Conductors²

B 189 Specification for Lead-Coated and Lead-Alloy-Coated Soft Copper Wire for Electrical Purposes²

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

B 354 Terminology Relating to Uninsulated Metallic Electrical Conductors²

2.2 American National Standard:

ANSI C42.35 Definitions of Electrical Terms³

2.3 NIST:

NBS Handbook 100—Copper Wire Tables⁴

3. Ordering Information

3.1 Orders for material under this specification shall include the following information:

3.1.1 Quantity of each size,

3.1.2 Conductor size: circular-mil area (Section 7 and Table 1),

3.1.3 Whether coated or uncoated; if coated, designate type of coating (Section 11),

3.1.4 Specific kind and treatment of core material (Section 4),

3.1.5 Details of special-purpose lays, if required (see 6.1 and 6.2 and Explanatory Note 3),

3.1.6 Package size (Section 14),

3.1.7 Lagging, if required (see 14.2),

3.1.8 Special package marking, if required (Section 14), and

3.1.9 Place of inspection (Section 13).

4. Core

4.1 The core may be of any material or materials suitable for the purpose as agreed upon by the manufacturer and the purchaser when placing the order.

4.2 The size of the core and its surface firmness as a base for the overlaid wires shall be adequate to prevent the forcing or dropping of any wire out of its layer position (Explanatory Note 4).

4.3 If a specific kind of fibrous core is required by the purchaser (such as manila rope, sisal, asbestos, or the like) it

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

³ Available from American National Standards Institute, 11 West 42nd St., 13th Floor, New York, NY 10036.

⁴ *NBS Handbook 100* is for sale from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.