



Designation: B 286 – 9502

Standard Specification for Copper Conductors for Use in Hookup Wire for Electronic Equipment¹

This standard is issued under the fixed designation B 286; 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.

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

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

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1. Scope

- 1.1 This specification covers uninsulated metallic-coated copper conductors for use in hookup wire for electronic equipment.
- 1.2 The SI values for density are to be regarded as standard. For all other properties, the inch-pound values are to be regarded as the standard.

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

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

B 193 Test Method for Resistivity of Electrical Conductor Materials²

B 258 Specification for Standard Nominal Diameters and Cross-Sectional Areas of AWG Sizes of Solid Round Wires Used as Electrical Conductors²

B 298 Specification for Silver-Coated Soft or Annealed Copper Wire²

B 355 Specification for Nickel-Coated Soft or Annealed Copper Wire²

3. Ordering Information

- 3.1 Orders for material under this specification shall include the following information:
 - 3.1.1 Quantity of each size, designation (Table 1) and type,
 - 3.1.2 Conductor size, designation, construction, and type (Table 1).
 - 3.1.3 Whether tin, lead alloy, silver-coated, or nickel-coated (see 4.1).
 - 3.1.4 For silver-coated conductors and nickel-coated conductors, class of coating (see 4.1), and when required, unannealed (see 4.2),
 - 3.1.5 Desired constructions where alternates are given (Table 1, Type II and, 5.1, 6.1, and 6.2),
 - 3.1.6 Package size (Section 12).
 - 3.1.7 Special package marking if required (Section 11), and
 - 3.1.8 Place of inspection (Section 10).
- 3.2 In addition, Supplementary Requirements shall apply only when specified by the purchaser in the inquiry, contract, or purchase order for direct procurement by agencies of the U.S. Government (S1, S2, and S3).

4. General Requirements

4.1 *Coating of Wires*— The coating of the solid conductors and the wires composing stranded conductors (before stranding) shall conform to the coating requirements of ASTM Specifications B 33, B 189, B 298, and B 355, as indicated on the purchase order.

² Annual Book of ASTM Standards, Vol 02.03.