



# Standard Specification for General Requirements for Wrought Copper Alloy Wire<sup>1</sup>

This standard is issued under the fixed designation B250/B250M; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

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

## 1. Scope\*

1.1 This specification establishes requirements common to wrought copper and copper alloy wire and shall apply to Specifications [B16/B16M](#), [B99/B99M](#), [B134/B134M](#), [B159/B159M](#), [B197/B197M](#), [B206/B206M](#), [B272](#), [B301/B301M](#), [B453/B453M](#), [B967/B967M](#), and [B974/B974M](#) to the extent referenced therein.

1.2 The chemical composition, physical and mechanical properties, and all other requirements not included in this specification shall be prescribed in the product specification.

1.3 *Units*—Values stated in either SI units or inch-pound units are to be regarded separately as standard. Within the text, SI units are shown in brackets. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

1.4 The following safety hazard caveat pertains only to the test methods described in this specification. *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and to determine the applicability of regulatory limitations prior to use.*

## 2. Referenced Documents

### 2.1 ASTM Standards:<sup>2</sup>

[B16/B16M](#) Specification for Free-Cutting Brass Rod, Bar and Shapes for Use in Screw Machines

[B99/B99M](#) Specification for Copper-Silicon Alloy Wire for General Applications

[B134/B134M](#) Specification for Brass Wire

[B159/B159M](#) Specification for Phosphor Bronze Wire

[B193](#) Test Method for Resistivity of Electrical Conductor Materials

[B194](#) Specification for Copper-Beryllium Alloy Plate, Sheet, Strip, and Rolled Bar

[B197/B197M](#) Specification for Copper-Beryllium Alloy Wire

[B206/B206M](#) Specification for Copper-Nickel-Zinc (Nickel Silver) Wire and Copper-Nickel Alloy Wire

[B272](#) Specification for Copper Flat Products with Finished (Rolled or Drawn) Edges (Flat Wire and Strip)

[B301/B301M](#) Specification for Free-Cutting Copper Rod, Bar, Wire, and Shapes

[B453/B453M](#) Specification for Copper-Zinc-Lead Alloy (Leaded-Brass) Rod, Bar, and Shapes

[B846](#) Terminology for Copper and Copper Alloys

[B900](#) Practice for Packaging of Copper and Copper Alloy Mill Products for U.S. Government Agencies

[B967/B967M](#) Specification for Copper-Zinc-Tin-Bismuth Alloy Rod, Bar and Wire

[B974/B974M](#) Specification for Free-Cutting Bismuth Brass Rod, Bar and Wire

[E3](#) Guide for Preparation of Metallographic Specimens

[E8/E8M](#) Test Methods for Tension Testing of Metallic Materials

[E18](#) Test Methods for Rockwell Hardness of Metallic Materials

[E29](#) Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications

[E54](#) Test Methods for Chemical Analysis of Special Brasses and Bronzes (Withdrawn 2002)<sup>3</sup>

[E62](#) Test Methods for Chemical Analysis of Copper and Copper Alloys (Photometric Methods) (Withdrawn 2010)<sup>3</sup>

[E75](#) Test Methods for Chemical Analysis of Copper-Nickel and Copper-Nickel-Zinc Alloys (Withdrawn 2010)<sup>3</sup>

[E112](#) Test Methods for Determining Average Grain Size

[E118](#) Test Methods for Chemical Analysis of Copper-Chromium Alloys (Withdrawn 2010)<sup>3</sup>

[E121](#) Test Methods for Chemical Analysis of Copper-Tellurium Alloys (Withdrawn 2010)<sup>3</sup>

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee B05 on Copper and Copper Alloys and is the direct responsibility of Subcommittee B05.02 on Rod, Bar, Wire, Shapes and Forgings.

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<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

<sup>3</sup> The last approved version of this historical standard is referenced on [www.astm.org](http://www.astm.org).

\*A Summary of Changes section appears at the end of this standard