



Designation: B 196/B 196M – 01

Standard Specification for Copper-Beryllium Alloy Rod and Bar¹

This standard is issued under the fixed designation B 196/B 196M; 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. Scope *

1.1 This specification establishes the requirements for copper-beryllium alloy rod and bar in straight lengths. The following three alloys are included:

Copper Alloy UNS No. ²	Previously Used Designations	Nominal Beryllium Content, %
C17000	Alloy 165	1.7
C17200	Alloy 25	1.9
C17300		1.9 +0.4 lead

1.2 Unless otherwise required, Copper Alloy UNS No. C17200 shall be the alloy furnished whenever Specification B 196/B 196M is specified without any alloy designation.

1.3 The values stated in either inch-pounds or SI units are to be regarded separately as the standard. Within the text, the 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 nonconformance with the specification.

1.4 *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 determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 The following documents in the current issue of the Book of Standards form a part of this specification to the extent referenced herein:

2.2 ASTM Standards:

B 194 Specification for Copper-Beryllium Alloy Plate, Sheet, Strip and Rolled Bar²

B 249/B 249M Specification for General Requirements for Wrought Copper and Copper-Alloy Rod, Bar, Shapes, and Forgings²

B 601 Practice for Temper Designations for Copper and

Copper Alloys—Wrought and Cast²

B 846 Terminology for Copper and Copper Alloys²

E 8 Test Methods of Tension Testing of Metallic Materials³

E 8M Test Methods of Tension Testing of Metallic Materials [Metric]³

3. General Requirements

3.1 The following sections of Specification B 249/B 249M constitute a part of this specification:

- 3.1.1 Terminology;
- 3.1.2 Dimensions and Permissible Variations;
- 3.1.3 Workmanship, Finish, and Appearance;
- 3.1.4 Sampling;
- 3.1.5 Number of Tests and Retests;
- 3.1.6 Specimen Preparation;
- 3.1.7 Test Methods;
- 3.1.8 Significance of Numerical Limits;
- 3.1.9 Inspection;
- 3.1.10 Rejection and Rehearing;
- 3.1.11 Certification;
- 3.1.12 Mill Test Report;
- 3.1.13 Packaging and Package Marking; and
- 3.1.14 Heat Identification

3.2 In addition, when a section with a title identical to that referenced in 3.1 above appears in this specification, it contains additional requirements which supplement those appearing in Specification B 249/B 249M.

4. Terminology

4.1 For terms related to copper and copper alloys, refer to Terminology B 846.

4.2 Definitions of Terms Specific to This Standard:

4.2.1 *grain count*—the number of grains per stock thickness.

5. Ordering Information

5.1 Orders for products should include the following information, as applicable:

- 5.1.1 ASTM specification designation and year of issue,
- 5.1.2 Quantity,
- 5.1.3 Copper Alloy UNS No. designation (Section 1),
- 5.1.4 Form of material (rod or bar and cross section, such as

¹ 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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² Annual Book of ASTM Standards, Vol 02.01.

³ Annual Book of ASTM Standards, Vol 03.01.

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