



Standard Specification for Copper-Silicon Alloy Rod, Bar and Shapes¹

This standard is issued under the fixed designation B 98/B 98M; 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 requirements for copper-silicon rod, bar, and shapes for UNS Alloys C65100, C65500, and C66100.

NOTE 1—Material for hot forging is covered by Specification B 124.

NOTE 2—For ASME Boiler and Pressure Vessel Code applications, see Specification SB-98 in Section II of that code.

1.2 The values stated in inch-pound units or SI units are to be regarded separately as standard. Within the text, SI units are shown in brackets. The values in each system are not 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.

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 124/B 124M Specification for Copper and Copper Alloy Forging Rod, Bar, and Shapes²

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

B 601 Classification for Temper Designations for Copper and Copper Alloys—Wrought and Cast²

E 8 Test Methods for Tension Testing of Metallic Materials³

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

E 18 Test Methods for Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials³

E 62 Test Methods for Chemical Analysis of Copper and Copper Alloys (Photometric Method)⁴

E 478 Test Methods for Chemical Analysis of Copper Alloys⁴

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.

⁴ *Annual Book of ASTM Standards*, Vol 03.05.

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 Materials and Manufacture,
- 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 Test Report (Mill),
- 3.1.13 Packaging and Package Marking, and
- 3.1.14 Supplemental Requirements.

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

4. Ordering Information

4.1 Include the following information in orders for product under this specification:

- 4.1.1 ASTM Designation and year of issue,
- 4.1.2 Copper Alloy UNS No. designation,
- 4.1.3 Temper designation,
- 4.1.4 Quantity; total weight or length, or number of pieces of each temper, form, or alloy,
- 4.1.5 Dimensions; diameter or distance between parallel surfaces,
- 4.1.6 Type of edge; edge contours,
- 4.1.7 How furnished; specific lengths with or without ends, and
- 4.1.8 When material is purchased for agencies of the U.S. Government (see Specification B 249/B 249M).

4.2 The following options are available under this specification and should be specified in the contract or purchase order when required:

- 4.2.1 Certification (Specification B 249/B 249M), and
- 4.2.2 Mill Test Report (Specification B 249/B 249M).

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