Designation: B981/B981M – 19

Standard Specification for Low-Leaded Brass Rod, Bar, Wire, and Shapes[1]

This standard is issued under the fixed designation B981/B981M; 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 establishes the requirements for low leaded brass rod, bar, wire, and shapes of any specified cross section produced from Copper Alloys UNS No. C36300, C36500, C37000, C37100 and C37700 suitable for high-speed screw machining applications.

NOTE 1—Refer to Specification B124/B124M when purchasing bar or rod for forging production.

1.2 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system are not necessarily exact equivalents; therefore, to ensure conformance with the standard, each system shall be used independently of the other, and values from the two systems shall not be combined.

1.3 *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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

B124/B124M Specification for Copper and Copper Alloy Forging Rod, Bar, and Shapes

B249/B249M Specification for General Requirements for Wrought Copper and Copper-Alloy Rod, Bar, Shapes and Forgings

B250/B250M Specification for General Requirements for Wrought Copper Alloy Wire

B601 Classification for Temper Designations for Copper and Copper Alloys—Wrought and Cast

E8/E8M Test Methods for Tension Testing of Metallic Materials

3. General Requirements

3.1 The following sections of Specifications B249/B249M (rod, bar, and shapes) and B250/B250M (wrought copper alloy wire) 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 Retest;
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 Supplementary Requirements.

3.2 In addition, when a section with a title identical to those referenced in 3.1 appears in this specification, it contains additional requirements that supplement those appearing in Specifications B249/B249M and B250/B250M.

4. Ordering Information

4.1 Include the following information when placing orders for product under this specification, as applicable:

4.1.1 ASTM specification designation and year of issue (Bxxx/BxxxM – XX).

4.1.2 Copper Alloy UNS No. designations (C36300, C36500, C37000, C37100, and C37700, see Section 6 and Table 1.

4.1.3 Temper (see Section 7 and Table 2 and Table 3).

4.1.4 Product cross section form (for example, round, hexagonal, square, etc.).

4.1.5 Dimensions (see Section 9).

4.1.6 How furnished: straight lengths or coils (see 5.2).

4.1.7 Edge contours (see Section 9).

[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] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.