
Standard Specification for

Wrought Copper-Alloy Bearing and Expansion Plates and Sheets for Bridge and Other Structural Use

AASHTO Designation: M 108-09

ASTM Designation: B 100-08



AASHTO M 108-09 is identical to ASTM B 100-08 except for the following:

1. All references to ASTM E 8/E 8M contained in ASTM B 22-08 shall be replaced with AASHTO T 68M/T 68.



Designation: B 100 – 08

Standard Specification for Wrought Copper-Alloy Bearing and Expansion Plates and Sheets for Bridge and Other Structural Use¹

This standard is issued under the fixed designation B 100; 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 wrought copper-alloy bearing plate and bearing sheets for application in bridges and other structures. Specifically, the plates and sheets are to be used for fixed or expansion bearings where the motion is slow and intermittent with pressures not exceeding 3 ksi (20 MPa).

1.2 *Units*—Values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

2. Referenced Documents

2.1 *ASTM Standards*:²

B 248 Specification for General Requirements for Wrought Copper and Copper-Alloy Plate, Sheet Strip, and Rolled Bar

B 846 Terminology for Copper and Copper Alloys

E 8 Test Methods for Tension Testing of Metallic Materials

E 9 Test Methods of Compression Testing of Metallic Materials at Room Temperature

E 10 Test Method for Brinell Hardness of Metallic Materials

E 18 Test Methods for Rockwell Hardness of Metallic Materials

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications

E 54 Test Methods for Chemical Analysis of Special Brasses and Bronzes³

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

E 255 Practice for Sampling Copper and Copper Alloys for

the Determination of Chemical Composition

E 478 Test Methods for Chemical Analysis of Copper Alloys

3. General Requirements

3.1 The following sections of Specification B 248 constitute a part of this specification:

3.1.1 Terminology,

3.1.2 Workmanship, Finish, and Appearance,

3.1.3 Sampling,

3.1.4 Number of Tests and Retests,

3.1.5 Specimen Preparation,

3.1.6 Test Methods,

3.1.7 Significance of Numerical Limits,

3.1.8 Inspection,

3.1.9 Rejection and Rehearing,

3.1.10 Certification,

3.1.11 Test Reports,

3.1.12 Packaging and Package Marking, and

3.1.13 Supplementary 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 appearing in Specification B 248.

4. Terminology

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

5. Ordering Information

5.1 Orders for product to this specification should include the following information:

5.1.1 ASTM designation and year of issue,

5.1.2 Copper Alloy UNS No. designation (for example, C51000),

5.1.3 Dimensions: length, width, thickness (Section 11 and Table 1),

5.1.4 Quantity or weight for each size,

5.1.5 Temper (Section 8),

5.1.6 When product produced of Copper Alloy UNS No. C61300 is to be used in applications requiring welding (Table 2, footnote B), and

¹ This specification is under the jurisdiction of ASTM Committee B05 on Copper and Copper Alloys and is the direct responsibility of Subcommittee B05.01 on Plate, Sheet, and Strip.

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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.

³ Withdrawn.

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

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