Designation: B62 – 09

StandardSpecification for Composition Bronze or Ounce Metal Castings[1]

This standard is issued under the fixed designation B62; 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[2] establishes requirements for an alloy having a composition of copper, tin, lead, and zinc, used for component castings of valves, flanges, and fittings. The common trade name of this alloy is 85-5-5-5; the correct identification is Copper Alloy UNS No. C83600.[3]

1.2 The castings covered are used in products that may be manufactured in advance and supplied from stock from the manufacturer or other dealer.

1.3 The 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:*[4]

B208 Practice for Preparing Tension Test Specimens for Copper Alloy Sand, Permanent Mold, Centrifugal, and Continuous Castings

B824 Specification for General Requirements for Copper Alloy Castings

E527 Practice for Numbering Metals and Alloys in the Unified Numbering System (UNS)

2.2 *MSS Standards:*

SP-25 Standard Marking System for Valves, Fittings, Flanges and Unions[5]

3. General Requirements

3.1 The following sections of Specification B824 form a part of this specification. In the event of a conflict between this specification and Specification B824, the requirements of this specification shall take precedence.

3.1.1 Terminology (Section 3),
3.1.2 Other Requirements (Section 7),
3.1.3 Dimensions, Mass, and Permissible Variations (Section 8),
3.1.4 Workmanship, Finish, and Appearance (Section 9),
3.1.5 Sampling (Section 10),
3.1.6 Number of Tests and Retests (Sections 11 and 13),
3.1.7 Specimen Preparation (Section 12),
3.1.8 Test Methods (Section 13),
3.1.9 Significance of Numerical Limits (Section 14),
3.1.10 Inspection (Section 15),
3.1.11 Rejection and Rehearing (Section 16),
3.1.12 Certification (Section 17),
3.1.13 Test Report (Section 18),
3.1.14 Product Marking (Section 19), and
3.1.15 Packaging and Package Marking (Section 20)

4. Terminology

4.1 For definitions of terms relating to copper and copper alloys, refer to Terminology B846.

5. Ordering Information

5.1 Include the following information when placing orders for castings under this specification:

5.1.1 Quantity of castings required,
5.1.2 Copper Alloy UNS No. (Table 1),
5.1.3 Specification title, number, and year of issue,
5.1.4 Pattern or drawing number and condition (as-cast, machined),
5.1.5 Chemical analysis of residual elements, if specified in the purchase order (Specification B824),
5.1.6 Pressure test requirements, if specified in the purchase order (Specification B824),
5.1.7 Soundness requirements, if specified in the purchase order (Specification B824),
5.1.8 Certification, if specified in the purchase order (Specification B824),

[1] This practice is under the jurisdiction of ASTM Committee B05 on Copper and Copper Alloys and is the direct responsibility of Subcommittee B05.05 on Castings and Ingots for Remelting.

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[2] For *ASME Boiler and Pressure Vessel Code* applications see related Specification SB-61 of that Code.

[3] The UNS system for copper and copper alloys (see Practice E527) is a simple expansion of the former standard designation system accomplished by the addition of a prefix "C" and a suffix "00". The suffix can be used to accommodate composition variations of the base alloy.

[4] *Annual Book of ASTM Standards*, Vol 02.01.

[5] Available from Manufacturers Standardization Society of the Valve and Fittings Industry, 127 Park Street NE, Vienna, VA 22180-4602.

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