



Designation: B 505/B 505M – 9602

Standard Specification for Copper-Base Copper Alloy Continuous Castings¹

This standard is issued under the fixed designation B 505/B 505M; 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 This specification is under the jurisdiction of ASTM Committee B-5 B05 on Copper and Copper Alloys and is the direct responsibility of Subcommittee B05.05 on Castings and Ingots for Remelting.

Current edition approved ~~Sept. Oct. 10, 1996~~ 2002. Published November ~~1996~~ 2002. Originally published as B 505 – 70. Last previous edition B 505 – 956.

1. Scope *

1.1 This specification establishes requirements for continuously cast rod, bar, tube, and shapes produced from ~~copperbase~~ copper alloys with nominal compositions as listed in Table 1.²

1.2 Castings produced to this specification may be manufactured for and supplied from stock. In such cases the manufacturer shall maintain heat traceability to specific manufacturing date and chemical analysis.

1.3 The values stated in inch-pound or SI units are the to be regarded separately as standard. ~~SI~~ The values given stated in p 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 208 Practice for Preparing Tension Test Specimens for ~~Copper-Base~~ Copper Alloys for Sand, Permanent Mold, Centrifugal and Continuous Castings³

B 824 Specification for General Requirements for Copper Alloy Castings³

B 846 Terminology for Copper and Copper Alloys³

E 8 Test Methods for Tension Testing of Metallic Materials⁴

E 8M Test Methods for Tension Testing of Metallic Materials (Metric)⁴

E 10 Test Method for Brinell Hardness of Metallic Materials⁴

E 18 Test Methods for Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials⁴

E 255 Practice for Sampling of Copper and Copper Alloys for the Determination of Chemical Composition⁵

E 527 Practice for Numbering Metals and Alloys (UNS)⁶

3. Terminology

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

4. General Requirements

4.1 The following sections of Specification B 824 form a part of this specification. The definition of a casting lot as defined in Section 12, Sampling, takes precedence over Specification B 824.

² The UNS system for copper and copper alloys (see Practice E 527) 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.

³ *Annual Book of ASTM Standards*, Vol 02.01.

⁴ *Annual Book of ASTM Standards*, Vol 03.01.

⁵ *Annual Book of ASTM Standards*, Vol 01.01; 03.05.

⁶ Available from the American Society

⁶ *Annual Book of Mechanical Engineers, United Engineering Center, 345 East 47th St., New York, NY 10017; ASTM Standards*, Vol 01.01.

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