



Standard Specification for Welded Copper-Nickel Pipe¹

This standard is issued under the fixed designation B467; 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 welded copper-nickel alloy pipe for general engineering purposes. The following alloys are covered:²

Copper Alloy UNS No. ²	Type of Metal
C70600	90-10 copper-nickel
C70620	90-10 copper-nickel (Modified for Welding)
C71500	70-30 copper-nickel
C71520	70-30 copper-nickel (Modified for Welding)

1.2 *Units*—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:³

- B153** Test Method for Expansion (Pin Test) of Copper and Copper-Alloy Pipe and Tubing
- B601** Classification for Temper Designations for Copper and Copper Alloys—Wrought and Cast
- B846** Terminology for Copper and Copper Alloys
- B950** Guide for Editorial Procedures and Form of Product Specifications for Copper and Copper Alloys
- B968/B968M** Test Method for Flattening of Copper and Copper-Alloy Pipe and Tube
- E8/E8M** Test Methods for Tension Testing of Metallic Materials
- E29** Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications

¹ This specification is under the jurisdiction of ASTM Committee B05 on Copper and Copper Alloys and is the direct responsibility of Subcommittee B05.04 on Pipe and Tube.

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² The UNS system for copper and copper alloys 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 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.

E54 Test Methods for Chemical Analysis of Special Brasses and Bronzes (Withdrawn 2002)⁴

E62 Test Methods for Chemical Analysis of Copper and Copper Alloys (Photometric Methods) (Withdrawn 2010)⁴

E243 Practice for Electromagnetic (Eddy Current) Examination of Copper and Copper-Alloy Tubes

E255 Practice for Sampling Copper and Copper Alloys for the Determination of Chemical Composition

E478 Test Methods for Chemical Analysis of Copper Alloys

2.2 Other Documents:⁵

American Welding Society Specification A5.6

American Welding Society Specification A5.7

3. Terminology

3.1 For the definitions of terms related to copper and copper alloys, refer to Terminology **B846**.

4. Types of Welded Pipe

4.1 *As-Welded*—Pipe that has been welded with no further work performed other than straightening or cutting to length, or both.

4.2 *Welded and Annealed*—Welded pipe that has been annealed to produce a uniform grain size appropriate to the specified annealed temper.

4.3 *Welded and Cold Drawn*—Welded pipe with internal flash removed by scarfing, and subsequently cold drawn to conform to the specified temper.

4.4 *Fully Finished*—Welded pipe with internal and external flash removed by scarfing and the pipe or tube subsequently cold drawn over a mandrel and annealed as necessary to conform to the specified temper.

5. Ordering Information

5.1 Include the following specified choices when placing orders for product under this specification, as applicable.

5.1.1 ASTM designation and year of issue,

5.1.2 Copper Alloy UNS No. (Section 1 and Table 1),

5.1.3 Temper (Section 8),

⁴ The last approved version of this historical standard is referenced on www.astm.org.

⁵ Available from American Welding Society (AWS), 8669 NW 36 Street, #130, Miami, FL 33166-6672, <http://www.aws.org>.

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