



Designation: B698 – 02

Standard Classification for Seamless Copper and Copper Alloy Plumbing Pipe and Tube¹

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1. Scope*

1.1 This classification covers various types of seamless copper and copper alloy² pipe and tube used for water service, distribution, and drainage. It is not a specification for the various types and alloys.

1.2 This classification uses the standard copper designations developed and used by the copper industry.

1.3 This classification makes no attempt to differentiate between all compositions that could be termed coppers or copper alloys, but, in conformance with general practice in the trade includes those coppers and copper alloys commonly used in the manufacture of water service, distribution, and drainage pipe and tube.

1.4 This classification makes no attempt to differentiate between all applications of seamless copper and copper alloy piping and tubing, and is intended for use in water service distribution and drainage.

2. Referenced Documents

2.1 ASTM Standards:³

[B42 Specification for Seamless Copper Pipe, Standard Sizes](#)

[B43 Specification for Seamless Red Brass Pipe, Standard Sizes](#)

[B88 Specification for Seamless Copper Water Tube](#)

[B88M Specification for Seamless Copper Water Tube \(Metric\)](#)

[B302 Specification for Threadless Copper Pipe, Standard Sizes](#)

[B306 Specification for Copper Drainage Tube \(DWV\)](#)

[B846 Terminology for Copper and Copper Alloys](#)

[E527 Practice for Numbering Metals and Alloys in the Unified Numbering System \(UNS\)](#)

3. Terminology

3.1 Definitions:

3.1.1 The following definitions are used for purposes of classification:

3.1.1.1 *pipe, seamless, n*—a seamless tube conforming to the particular dimensions commercially known as Standard Pipe Sizes.

3.1.1.2 *threadless pipe, n*—a seamless tube conforming to particular dimensions commercially known as Threadless Pipe (TP).

3.1.1.3 *tube, seamless, n*—a tube produced with a continuous periphery in all stages of the operation.

3.1.1.4 *tube, seamless water, n*—a tube conforming to the particular dimensions of tube commercially known as copper water tube and designated as Types K, L, and M in inch-pound units and Types A, B, and C in SI units.

3.2 For definitions of general terms related to copper and copper alloys, refer to Terminology [B846](#).

4. Significance and Use

4.1 This classification is provided to serve the needs of designers, specifiers, installers, and users of seamless copper and copper alloy plumbing tube and piping systems. It familiarizes them with the products available for such systems, giving size ranges and available materials for products listed herein. Also refer to Section 1.

5. Basis of Classification

5.1 [Tables 1 and 2](#) list ASTM specifications, types, designations, general applications, range of sizes of water tubes produced currently, and the copper or copper alloy UNS number. The listed products are not necessarily available in the complete range of coppers and alloys or sizes, nor from any one supplier in all forms.

5.2 Existing ASTM specifications for seamless copper and copper alloys may cover more than one of the products listed in [Table 1](#).

¹ This classification 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 (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.

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.

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