



Designation: B 135M – 96
METRIC

Standard Specification for Seamless Brass Tube [Metric]¹

This standard is issued under the fixed designation B 135M; 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 covers seamless round and rectangular including square copper alloy tube in straight lengths. Ten alloys are specified having the following nominal compositions:

Copper Alloy UNS No.	Previously Used Designation ^A	Nominal Composition, %			
		Copper	Zinc	Lead	Tin
C22000	7	90.0	10.0	...	...
C23000	1	85.0	15.0	...	...
C26000	2	70.0	30.0	...	...
C27000	9	65.0	35.0	...	...
C27200	8	63.0	37.0	...	...
C27400	...	62.5	37.5	...	...
C28000	5	60.0	40.0	...	...
C33000	3	66.0	33.5	0.5	...
C33200	4	66.0	32.4	1.6	...
C37000	6	60.0	39.0	1.0	...
C44300	...	71	27.5	...	1.00

^AAlloy Designations of ASTM Specification B 135 – 63 which was published in the 1966 Book of ASTM Standards, Part 5.

NOTE 1—This specification is the metric companion of Specification B 135.

1.2 **Warning**—Mercury is a definite health hazard in use and disposal. (See 9.1.)

2. Referenced Documents

2.1 The following documents of the issue in effect on date of material purchase form a part of this specification to the extent referenced herein:

2.2 ASTM Standards:

B 153 Test Method for Expansion (Pin Test) of Copper and Copper-Alloy Pipe and Tubing²

B 154 Test Method for Mercurous Nitrate Test for Copper and Copper Alloys²

B 251M Specification for General Requirements for Wrought Seamless Copper and Copper-Alloy Tube [Metric]²

¹ This specification is under the jurisdiction of ASTM Committee B-5 on Copper and Copper Alloys and is the direct responsibility of Subcommittee B05.04 on Pipe and Tube.

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² Annual Book of ASTM Standards, Vol 02.01.

B 601 Practice for Temper Designations for Copper and Copper Alloys—Wrought and Cast²

E 243 Practice for Electromagnetic (Eddy-Current) Examination of Copper and Copper-Alloy Tubes³

E 527 Practice for Numbering Metals and Alloys (UNS)⁴

3. Terminology

3.1 Definitions of Terms Specific to This Standard:

3.1.1 *capable of*—as used in this specification, the test need not be performed by the producer of the material. However, should subsequent testing by the purchaser establish that the material does not meet these requirements the material shall be subject to revision.

4. Ordering Information

4.1 Orders for material under this specification shall include the following information:

4.1.1 Alloy (Section 1),

4.1.2 Temper (Section 6),

4.1.3 Whether tension tests are required (for drawn tempers only (see 7.1)),

4.1.4 Dimensions, the diameter or distance between parallel surfaces and wall thickness (see 10.2 and 10.3),

4.1.5 Length (see 11.4),

4.1.6 Mercurous nitrate test, if required (Section 9),

4.1.7 Total length of each size,

4.1.8 Hydrostatic pressure test, when specified, and

4.1.9 Pneumatic test, when specified.

5. Chemical Composition

5.1 The material shall conform to the chemical requirements specified in Table 1.

5.2 These specification limits do not preclude the presence of other elements. Limits for unnamed elements are to be established by agreement between manufacturer or supplier and purchaser.

5.2.1 For copper alloys in which zinc is specified as the remainder, either copper or zinc shall be permitted to be taken as the difference between the sum of all the elements analyzed and 100 %.

³ Annual Book of ASTM Standards, Vol 03.03.

⁴ Annual Book of ASTM Standards, Vol 01.01.