AERONAUTICAL
MATERIAL SPECIFICATIONS
SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Ave., New York 17, N.Y.

AMS 4555C

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BRASS TUBING, SEAMLESS
68Cu - 31Zn
Light Annealed

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.

2. APPLICATION: Primarily for parts requiring moderate strength and fair ductility.

3. COMPOSITION:

Copper	65.0 - 71.5
Lead	0.8 max
Tin	0.15 max
Iron	0.07 max
Zinc	remainder

4. CONDITION: Fully recrystallized, in light annealed temper. Tubing shall be either bright annealed or acid cleaned after final annealing operations.

5. TECHNICAL REQUIREMENTS:

5.1 Tensile Properties:

ø	Tensile Strength, psi	44,000 min
	Elongation, % in 2 in.	35 min

5.2 Grain Size: Average grain size shall be not larger than 0.035 mm when determined in accordance with ASTM E79-49T.

5.3 Hardness: Tubing shall have hardness of Rockwell 30-T 28 - 53 or equivalent, but shall not be rejected on the basis of hardness if the tensile property and grain size requirements are met.

5.4 Flarability: Tubing shall be capable of being flared without formation of cracks or other visible defects. Specimens for flaring may be cut from any portion of the tube, or an entire tube may be used as a specimen. The end of the specimen to be flared shall be cut square, with the cut end smooth and free from burrs, but not rounded. The specimen shall, at room temperature, be forced axially with steady pressure over a hardened and polished tapered steel pin having a 74 deg included angle, to produce a flare having the permanent expanded OD specified in the following table.

Nominal OD Inches	Permanent Expanded OD Inches
0.750 and under	1.20 x nominal OD
Over 0.750 to 4.00, incl	1.15 x nominal OD

5.5 ø Mercurous Nitrate Test: Test specimens 6 in. in length shall be capable of withstanding, without cracking, testing in accordance with ASTM B154-51, Procedure A.

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