AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
29 West 39th Street
New York City

AMS 4555

Issued 9-1-41
Revised

B R A S S T U B I N G
Light Annealed

1. ACKNOWLEDGMENT: A vendor must mention this specification number in all quotations and when acknowledging purchase orders.

2. COMPOSITION:

Copper	65.0 - 71.5
Lead	0.80 max
Iron	0.08 max
Tin	0.15 max
Zinc	remainder

3. CONDITION: (a) LIGHT ANNEALED, but fully recrystallized, conforming to a maximum grain size of 0.035 mm, unless otherwise ordered.

(b) The tubing shall conform to the following minimum physical properties:

Tensile Strength, lb. per sq. in.	45,000
Elongation, % in 2 in.	35

(c) The tubing shall be capable of being expanded on a hardened and polished, tapered steel pin having a 60 degree included angle, to the following amounts, without cracking.

Outside Diameter inches	Expansion of Outside Diameter Per Cent
3/4 and under	20
Over 3/4	15

(d) A test specimen 6 inches in length shall withstand, without cracking, total immersion for 15 minutes in an acqueous mercurous nitrate solution containing 100 gm of mercurous nitrate and 13 ml of nitric acid (sp gr 1.42) per liter of solution.

4. QUALITY: (a) The tubing shall be uniform in quality and temper in accordance with best commercial practice.

(b) The tubing shall be seamless, round, and of proper dimensions. External and internal surfaces shall be clean, smooth, free from cracks, seams, slivers scale, and other injurious defects, and shall not reveal defects during fabrication.

(c) Annealed tubes shall be either bright annealed, or acid-cleaned after the final annealing operations.

5. TOLERANCE: (a) The following variations in mean diameter are permissible; all dimensions are in inches: