

# AERONAUTICAL MATERIAL SPECIFICATION

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

## AMS 4088B

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### ALUMINUM ALLOY TUBING (SEAMLESS) Copper Magnesium Manganese (24S-T)

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

2. COMPOSITION:

Copper	3.8 - 4.9
Magnesium	1.2 - 1.8
Manganese	0.3 - 0.9
Iron	0.5 max
Silicon	0.5 max
Chromium	0.25 max
Zinc	0.10 max
Other Impurities, each	0.05 max
Other Impurities, total	0.15 max
Aluminum	remainder

3. CONDITION: (a) Solution heat treated conforming to the following minimum physical properties;

Diameter	Wall Thickness	Tensile Strength	Yield Strength (0.2% Offset) or at Extension Indicated		Elongation % in 2 in.
			psi	psi	
Inches	Inch	psi	psi	inch in 2 in.	% in 2 in.
1/4 to 2, incl.	0.025 - 0.049	64,000	42,000	0.0119	12
	0.050 - 0.259	64,000	42,000	0.0119	14
	0.260 - 0.500	64,000	42,000	0.0119	16
Over 2 to 8, incl.	0.025 - 0.259	64,000	42,000	0.0119	10
	0.260 - 0.500	64,000	42,000	0.0119	12

(b) The tubing shall be capable of being flattened sidewise under a gradually applied load, without cracking, to an outside dimension eight times the wall thickness.

4. QUALITY: (a) Tubing shall be uniform in quality and condition, sound and free from foreign material and from internal and external defects detrimental to fabrication or to the performance of parts in service. Tubing revealing defects during fabrication shall be subject to rejection.

(b) Tubing and parts made therefrom shall be subject to inspection by any method which will reveal defects.