AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 4152 A

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ALUMINUM ALLOY EXTRUSIONS
Copper Magnesium Manganese (24S-T)

1. ACKNOWLEDGMENT: A vendor must 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	0.50 max
Silicon	0.50 max
Chromium	0.25 max
Zinc	0.10 max
Other elements, each	0.05 max
Other elements, total	0.15 max
Aluminum	remainder

3. CONDITION: Heat treated conforming to the following minimum physical properties:

Diameter of Least Thickness*	Tensile Strength	Yield Strength at 0.2% Set or at Extension Indicated		Elongation
			Extension Under Load	
inches	lb per sq in.	lb per sq in.	in. in 2 in.	% in 2 in.
0.050 - 0.249	57,000	42,000	0.0122	12
0.250 - 0.499	60,000	44,000	0.0125	12
0.500 - 1.499	65,000	46,000	0.0129	10
1.500 and over	70,000	52,000	0.0141	10

*Note: In cases where significant portions of cross-sections are indicated on drawing, test specimens shall be taken from the indicated portion, and physical properties of such specimens shall meet the foregoing requirements based upon their respective thicknesses.

4. QUALITY: The material shall be uniform in quality and temper, free from blisters fins, seams, cracks, segregations, and other defects which adversely affect its strength, use, or machinability. It is subject to coarse etching and any other tests necessary to insure high quality. If material defects are revealed during fabrication the material is subject to rejection.