AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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New York City

AMS 4152

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Revised

ALUMINUM ALLOY EXTRUSIONS

Heat Treated Copper Magnesium Manganese (24S-T)

1. ACKNOWLEDGMENT: A vendor must mention this specification number 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
Zinc	0.03 max
Chromium	0.25 max
Other elements, each	0.03 max
Other elements, total	0.10 max
Aluminum	Remainder

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

Thickness Inches (1)	Tensile Strength Lbs. per Sq. In.	Yield Strength Lbs. per Sq. In.	Elongation Percent in 2 In.
0.050 to 0.249	57,000	42,000	12
0.250 to 1.499	60,000	44,000	12
1.500 and greater	70,000	52,000	10

(1) 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: This material shall be uniform in quality and temper, free from blisters, fins, seams, cracks, segregations, or other defects which adversely affect its strength, use, or machinability, and 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.

5. TOLERANCE: The following variations in dimension are permissible:

Dimensions Inches	Tolerance Inch, Plus or Minus
Up to 0.125	0.010
0.126 to 0.500	.015
0.501 to 1.000	.020
1.001 to 2.000	.025
2.001 to 3.000	.030
3.001 to 4.000	.035