AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 4118B

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ALUMINUM ALLOY
Copper Manganese Magnesium (17S-T)
Rolled

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

2. FORM: Rods, bars, or shapes.

3. COMPOSITION:

Copper	3.5 - 4.5
Manganese	0.4 - 1.0
Magnesium	0.2 - 0.8
Iron	1.0 max
Silicon	0.8 max
Chromium	0.25 max
Zinc	0.10 max
Other Elements, each	0.05 max
Other Elements, total	0.15 max
Aluminum	remainder

4. CONDITION: (a) Heat treated conforming to the following minimum physical properties:

Tensile Strength, lb per sq in.	55,000
Yield Strength (0.2% Set), lb per sq in.	32,000
Equivalent Extension Under Load, inch in 2 in.	0.0102
Elongation, % in 2 in.	16
Brinell Hardness	90

(b) Material which conforms to the minimum tensile requirements shall not be rejected on the basis of hardness.

(c) The physical properties specified apply to rounds, squares, hexagons and octagons from 0.125 to 8.000 inches in diameter or least thickness and to rectangles up to 3.000 inches in least thickness.

5. QUALITY: The material shall be uniform in quality and temper, free from blisters, fins, seams, laps, 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 while machining the parts, the material is subject to rejection.