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Revised

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AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.

29 West 39th Street

New York City

AMS

4030

ALUMINUM ALLOY SHEET

Copper Manganese Magnesium

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

2. 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
Other Impurities, each	0.03 max
Aluminum	remainder

3. CONDITION: (a) Annealed conforming to the following physical properties when test pieces are cut across the direction of rolling, except strips less than 6" which may be cut lengthwise:

Tensile Strength, lb per sq in. max	35,000
Elongation, % in 2 in. min	12

(b) The material shall not crack when cold bent 180°, in any direction, over a diameter equal to the thickness times the following factor:

<u>Thickness, inches</u>	<u>Bend Factor</u>
0.013 - 0.032, inclusive	0
0.033 - 0.064, "	1
0.065 - 0.128, "	2
0.129 - 0.258, "	4
0.259 - 0.500, "	6

4. PHYSICAL PROPERTIES: (a) Unless otherwise specified, the material after heat treating and when cut in any direction, shall conform to the following minimum physical properties:

<u>Thickness, inches</u>	<u>Tensile Strength, lb per sq in.</u>	<u>Yield Strength, lb per sq in.</u>	<u>Elongation, % in 2 in.</u>	<u>Bend Factor</u>
0.013 - 0.020	55,000	32,000	15	3
0.021 - 0.036	55,000	32,000	18	3
0.037 - 0.128	55,000	32,000	18	4
0.129 - 0.258	55,000	32,000	15	6
0.259 - 0.500	55,000	32,000	12	8
0.501 - 1.000	55,000	32,000	10	-

(b) The material shall not crack when cold bent 180° over a diameter equal to the bend factor times the thickness, the axis of bend being parallel to the direction of rolling.