

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.

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AMS 4017

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Revised

ALUMINUM ALLOY SHEET AND STRIP Magnesium Chromium (52S-1/2H)

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

2. COMPOSITION:

Magnesium	2.2 - 2.8
Chromium	0.15 - 0.35
Manganese	0.10 max
Copper	0.10 max
Zinc	0.03 max
Iron and Silicon, Total	0.45 max
Other Impurities, Total	0.10 max
Other Impurities, each	0.03 max
Aluminum	remainder

3. CONDITION: (a) Half hard.

(b) Test specimens cut parallel to the direction of rolling shall conform to the following minimum requirements.

Thickness	Tensile Strength Lbs. per sq.in.	Elongation % in 2 in.		Bend Factor
		Sheet	Strip	
0.010-0.019	34,000	4	3	1
0.020-0.050	34,000	5	4	2
.051-.080	34,000	7	6	2
.081-.113	34,000	7	7	2
.114-.249	34,000	8	8	3

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

(d) Unless otherwise specified sheet shall have a commercial bright finish and strip shall have a mill finish.

4. QUALITY: The material shall be uniform in quality and temper, straight, flat, clean and smooth, free from seams, laminations, blisters and other defects within the limits of best commercial manufacturing methods. Material revealing defects during fabrication is subject to rejection.

5. TOLERANCES: The following variations in thickness are permissible; (Plus or Minus)

(See next page for Table)