SAE The Engineering Resource For Advancing Mobility
400 COMMONWEALTH DRIVE, WARRENDALE, PA 15096

AEROSPACE MATERIAL SPECIFICATION

AMS 4052A

Issued 3- 1-55
Revised 7- 1-81

ALUMINUM ALLOY SHEET AND PLATE, ALUMINUM ALLOY CLAD 6.8Zn - 2.75Mg - 2Cu - 0.3Cr (Alclad X7178-T6)

This specification has been declared "NONCURRENT" by the Aerospace Materials Division, SAE, as of 10-31-68. It is recommended that this specification not be specified for new designs.

This cover sheet should be attached to the "A" revision of the subject specification.

This specification has been declared "CANCELLED" by the Aerospace Materials Division, SAE, as of 7- 1-81. By this action, subject specification number and title will be deleted from the active specification index of Aerospace Material Specifications.

SAE LAND SEA AIR SPACE

Society of Automotive Engineers, Inc.
400 COMMONWEALTH DRIVE WARRENDALE PA 15096

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AMS 4052A

Issued 3-1-55
Revised 1-15-57

ALUMINUM ALLOY SHEET AND PLATE, ALUMINUM ALLOY CLAD
6.8Zn - 2.75Mg - 2Cu - 0.3Cr (Alc X7178-T6)

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

2. APPLICATION: Primarily for structural use, including machine tapered parts.

3. COMPOSITION:

	Core		Cladding	
	Zinc	6.3 - 7.3	Zinc	0.8 - 1.3
	Magnesium	2.4 - 3.1	Silicon + Iron	0.7 max
	Copper	1.6 - 2.4	Magnesium	0.10 max
	Chromium	0.18 - 0.40	Copper	0.10 max
	Iron	0.7 max	Manganese	0.10 max
ø	Silicon	0.50 max	Other Impurities, each	0.05 max
	Manganese	0.30 max	Other Impurities, total	0.15 max
	Titanium	0.20 max	Aluminum	remainder
	Other Impurities, each	0.05 max		
	Other Impurities, total	0.15 max		
	Aluminum	remainder		

4. CONDITION: Solution and precipitation heat treated.

5. TECHNICAL REQUIREMENTS:

5.1 Cladding Thickness: After rolling, the cladding thickness on each side shall be not less than 3-1/4% of the total composite thickness.

5.2 Tensile Properties: Test specimens shall conform to ASTM E8-54T except from sheet less than 3/4 in. wide and shall be cut across the direction of rolling except from sheet less than 9 in. wide. Elongation requirements apply only to sheet 3/4 in. and over in width.

ø Nominal Thickness Inches	Tensile Strength psi, min	Yield Strength at 0.2% Offset or at Extension Indicated (See 5.2.1) psi, min	Extension Under Load in. in 2 in.	Elongation % in 2 in. min
0.015 to 0.044, incl	76,000	66,000	0.0178	7
Over 0.044 to 0.499, incl	78,000	68,000	0.0182	8
Over 0.499 to 1.000, incl	84,000	73,000	0.0182	6
Over 1.000 to 1.500, incl	84,000	73,000	0.0182	4
Over 1.500 to 2.000, incl	80,000	70,000	0.0176	3