

2024 ALUMINUM SHEET & PLATE

2024 is a high strength, fatigue-resistant aluminum alloy used by the motorsports and aircraft industries for structural applications. It has good machinability, and good corrosion in non-industrial atmospheres, but poor corrosion resistance in marine applications. Welding is generally not recommended. 2024 is a heat-treatable grade of aluminum, and it sometimes used in place of 7075.

While AED does not stock 2024 sheet on a regular basis, we may have some inventory or quick access to it upon request.

2024 Chemical Analysis

Cu	Si	Fe (max)	Mn	Mg	Zn (max)	Cr	Ti (max)	Others		Al
								Each	Total	
3.80/4.90	.50	.50	.30/.90	1.20/1.80	.25	.10	.15	.05	.015	Remainder

2024 SHEET AND PLATE

2024 sheets are available in either a bare (mill finish) or as an "alclad" finish. Cladding provided superior corrosion resistance. Sheets are offered in a heat-treated temper (2024-T3) or in a soft annealed temper for forming (2024-O). These temper designations describe the condition that material is produced to, including such criteria as heat-treating, annealing, and the like. 2024 plates are available 2024-T351 bare only.

All 2024 bare sheets and plates meet AMS-QQ-A250/4. All 2024 Alclad sheets meet AMS-QQ-A250/5. 2024-T3 bare also meets AMS 4037. 2024-T3 Alclad also meets AMS 4041. 2024-O bare also meets AMS 4035. 2024-O Alclad also meets AMS 4040. 2024-T351 plates also meet AMS 4033.

2024 Sheet/Plate Typical Mechanical Properties:

	2024-T3	2024-T3 Alclad	2024-T351	2024-O	2024-O Alclad
Tensile Strength (psi)	70,000	65,000	68,000	27,000	26,000
Yield Strength (psi)	50,000	45,000	47,000	11,000	11,000
Elongation (% in 2")					
.063" Sheet	18	18	20	20	20
1/2" Round	-	-	19	22	
Min. 90° Cold Bend Radius for .064" thick	3-5T	-	3-5T	0	-
Brinell Hardness	120	-	120	47	-
Ultimate Shearing Strength (psi)	41,000	40,000	41,000	18,000	18,000
Fatigue, Endurance Limit (psi)	20,000	-	20,000	13,000	-
Modulus of Elasticity (ksi x 1000)	10.6	10.6	10.6	10.6	10.6

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PRODUCT DETAILS



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Note: "Typical Mechanical Properties" have been compiled from a variety of sources. Information is deemed reliable, but it is not guaranteed. This data is provided for information only, **NOT FOR DESIGN PURPOSES.**



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