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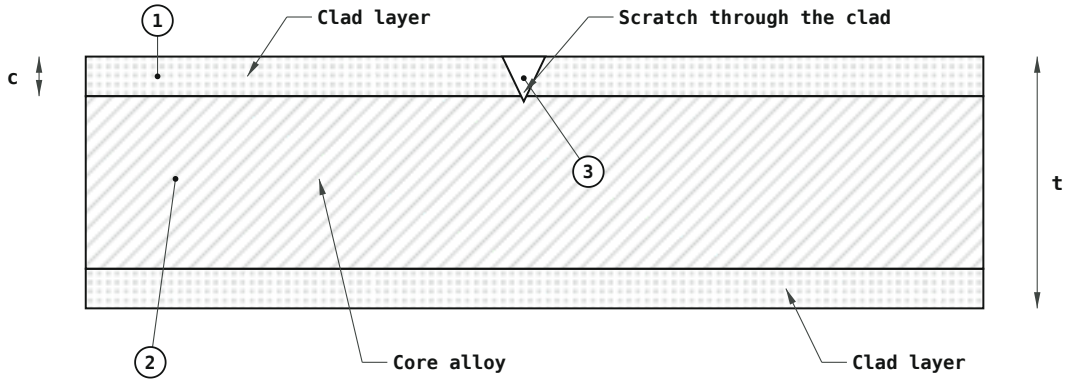
Alclad 7075-T6 Aluminum

7075-T6 with a corrosion-resistant layer on each face.

REFERENCE DRAWING — NOT APPROVED DATA · THE SRM ALWAYS GOVERNS

SECTION A–A

THROUGH ALCLAD SHEET, CLAD NOT TO SCALE



WHAT TO DO

Protect the layer: scratches through it reach the core.

Bare and Alclad are not interchangeable.

Repair clad with clad for most corrosion resistance.

PARTS LIST

#	LAYER
1	Clad: near-pure aluminum, soft
2	Core: 2024, 7075 or similar
3	Scratch: corrosion can start

NOTES

1. Dimensions in inches. Do not scale: the SRM sets the values.
2. For reference. The applicable manual always governs.
3. Based on AC 43.13-1B, FAA-H-8083-31B, MIL-HDBK-5J.

REVISIONS

REV	DESCRIPTION	DATE
A	First issue	2026-10-30

The Aviation Point. Structural repair reference

TITLE			
Alclad sheet in section			
DRAWING NO.	REV	SCALE	SHEET
TAP-DWG-048	A	NTS	1 OF 1
APPLIES TO			
Alclad sheet and plate			

DO NOT SCALE DRAWING

A scratch that goes through the clad reaches the core alloy (FAA-H-8083-31B, p. 4-89). Layer thickness not to scale.

Key facts

Property	Value	Source
Ftu, L, A basis, 0.063–0.187 in	74 ksi (bare 7075-T6 sheet 0.040–0.125 in: 78 ksi)	MIL-HDBK-5J Tables 3.7.6.0(c1), (b1)
Density	0.101 lb/in³ (2.81 g/cm³)	MIL-HDBK-5J
Cladding, plate	1½ % nominal per side	MIL-HDBK-5J Table 3.7.6.0(c5)
Bend radius, 0.064" sheet	4t – 6t, slightly less if clad	AC 43.13-1B Table 4-6
Welding	Do not weld	AC 43.13-1B par. 4-89d

Composition limits, weight percent

Element	Limit
Si	0.40
Fe	0.50
Cu	1.2–2.0
Mn	0.30
Mg	2.1–2.9
Cr	0.18–0.28
Zn	5.1–6.1
Ti	0.20
Al	Remainder

Design allowables, Alclad 7075-T6 sheet

Property, ksi	0.040–0.062 A	0.040–0.062 B	0.063–0.187 A	0.063–0.187 B
Ftu, L	71	75	74	77
Ftu, LT	71	75	74	77
Fty, L	63	66	66	69

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Property, ksi	0.040–0.062 A	0.040–0.062 B	0.063–0.187 A	0.063–0.187 B
Fty, LT	61	64	64	67
Fcy, L	62	65	65	68
Fcy, LT	65	68	68	71
Fsu	42	45	44	46
Fbru, e/D = 1.5	110	116	115	119
Fbru, e/D = 2.0	142	150	148	154
Fbry, e/D = 1.5	91	96	96	100
Fbry, e/D = 2.0	106	112	112	117

Bend radii (AC 43.13-1B Table 4-6)

Alloy and temper	0.016"	0.032"	0.064"	0.128"	0.182"	0.258"
7075-O	0	0 – 1t	0 – 1t	½t – 1½t	1t – 2t	1½t – 3t
7075-T6	2t – 4t	3t – 5t	4t – 6t	5t – 7t	5t – 7t	6t – 10t

Minimum bend radius, inches (AMT Handbook Chart 204)

Alloy and temper	0.020"	0.032"	0.040"	0.063"	0.125"	0.190"
7075-T6	.12	.19	.22	.31	.88	1.38

Specifications and product forms

Specification	Form
AMS 4049	Clad sheet and plate
AMS-QQ-A-250/13, /25	Clad sheet and plate

Key points

- **Not a source of design allowables.** Values are for reference. MMPDS and the SRM govern a repair.
- **Not a substitution approval.** A different alloy or temper needs approved data.
- **Not for welding.** AC par. 4-89d.

SOURCES · FAA AC 43.13-1B CHG 1, Chapters 4 and 7 · FAA-H-8083-31B, AMT Handbook — Airframe, Volume 1, Chapter 4 · MIL-HDBK-5J, Chapter 3 · Aluminum Association, International Alloy Designations, rev. Aug 2018 · MMPDS

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 Educational reference only, not approved data. Always consult the applicable SRM, AMM, or AC 43.13-1B and your certifying authority.

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