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6063 Aluminum

An extrusion alloy that the usual aircraft references leave out.

REFERENCE DRAWING — NOT APPROVED DATA · THE SRM ALWAYS GOVERNS

THE MARKING

ALLOY NUMBER, THEN TEMPER

2024 – T 3 51

① ② ③ ④

SERIES

FIRST DIGIT: MAIN ALLOYING ELEMENT

SERIES	ELEMENT	EXAMPLES
1xxx	Aluminum, 99 % or more	1100
2xxx	Copper	2024, 2219
3xxx	Manganese	3003
5xxx	Magnesium	5052, 5086
6xxx	Magnesium and silicon	6061, 6063
7xxx	Zinc	7075, 7050

BASIC TEMPER LETTERS

AC 43.13-1B TABLE 4-4

LETTER	MEANING
F	As fabricated. No property limits
O	Annealed: the softest temper
H	Strain-hardened (non heat-treatable)
T	Heat-treated to a stable temper

PARTS LIST

#	WHAT IT SAYS
1	Alloy number: the composition
2	T: heat-treated
3	3: solution treated, cold-worked
4	51: stretched 1 to 3 % set

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 Table 4-4, AA Teal Sheets.

REVISIONS

REV	DESCRIPTION	DATE
A	First issue	2026-10-30

The Aviation Point. Structural repair reference

TITLE: **Aluminum alloy and temper code**

DRAWING NO.	REV	SCALE	SHEET
TAP-DWG-047	**A**	**NTS**	**1 OF 1**

APPLIES TO: Wrought aluminum alloys

DO NOT SCALE DRAWING

Temper meanings from AC 43.13-1B Table 4-4. Full list: aluminum temper chart.

Key facts

Property	Value	Source
Density	0.097 lb/in³ (2.70 g/cm³)	Teal Sheets
Aerospace specification	AMS 4156: extrusions, 6063-T6	SAE AMS4156 title
In MIL-HDBK-5J	Not listed	MIL-HDBK-5J Table 3.1.1
In AC 43.13-1B	Not listed	AC 43.13-1B

Composition limits, weight percent

Element	Limit
Si	0.20–0.6
Fe	0.35
Cu	0.10
Mn	0.10
Mg	0.45–0.9
Cr	0.10
Zn	0.10
Ti	0.10
Al	Remainder

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.

SOURCES · Aluminum Association, International Alloy Designations, rev. Aug 2018 · SAE AMS4156, Aluminum Alloy, Extrusions, 6063-T6 · MIL-HDBK-5J, Chapter 3 · FAA AC 43.13-1B CHG 1, Chapters 4 and 7 · MMPDS

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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