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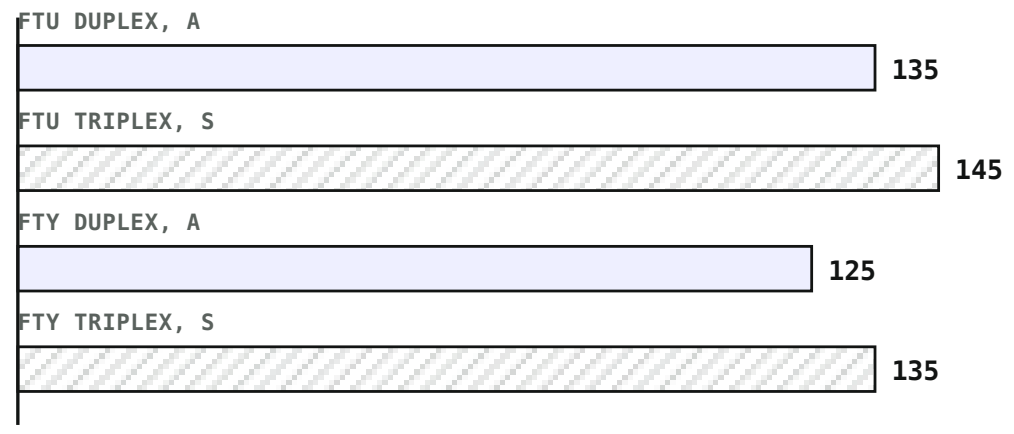
Ti-6Al-2Sn-4Zr-2Mo Titanium

The titanium for heat: near-alpha, creep resistant and stable to about 1,050 °F.

REFERENCE DRAWING — NOT APPROVED DATA · THE SRM ALWAYS GOVERNS

TI-6AL-2SN-4ZR-2MO

SHEET, DUPLEX AND TRIPLEX ANNEALED · KSI



PARTS LIST

#	ITEM	NOTE	SRC
1	Sheet	AMS 4919	HDBK-5J
2	Triplex sheet	AMS-T-9046 AB-4	HDBK-5J
3	Creep stable to	1050 F	HDBK-5J
4	Weld	TIG or MIG	HDBK-5J

READ BEFORE USE

FORM HOT FOR SEVERE SHAPES

SHIELD THE WELD

DRY-PIN BEARING VALUES IN THE TABLE

NOTES

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

REVISIONS

REV	DESCRIPTION	DATE
A	First issue	2026-10-30

The Aviation Point. Structural repair reference

TITLE			
Ti-6242 sheet			
DRAWING NO. TAP-DWG-084	REV A	SCALE NTS	SHEET 1 OF 1
APPLIES TO Aircraft materials			
DO NOT SCALE DRAWING			

Ti-6Al-2Sn-4Zr-2Mo: sheet, duplex and triplex annealed Values from MIL-HDBK-5J, S basis unless noted.

Key facts

Property	Value	Source
Type	Near-alpha titanium with solid-solution strengthening by tin and zirconium; molybdenum improves strength, creep and stability	MIL-HDBK-5J, par. 5.3.3.0
Temperature	Creep resistant and relatively stable to about 1,050 °F	MIL-HDBK-5J, par. 5.3.3.0
Silicon	About 0.08 % silicon improves creep strength	MIL-HDBK-5J, par. 5.3.3.0
Sheet	AMS 4919 (duplex annealed) and AMS-T-9046 Comp. AB-4 (triplex annealed)	MIL-HDBK-5J, Table 5.3.3.0(b)
Forms	Bar, billet, plate, sheet, strip and extrusions	MIL-HDBK-5J, par. 5.3.3.0
Welding	TIG or MIG fusion gives 100 percent joint efficiency, with limited weld-zone ductility	MIL-HDBK-5J, par. 5.3.3.0

Design allowables — Ti-6Al-2Sn-4Zr-2Mo sheet

Property	Duplex annealed, AMS 4919, 0.047–0.093 in, A basis	Triplex annealed, AMS-T-9046 AB-4, to 0.187 in, S basis	Unit
Ftu, L and LT	135	145	ksi
Fty, L and LT	125	135	ksi
Fcy, L and LT	132	—	ksi
E	16.5	16.5	10^3 ksi
G	6.2	6.2	10^3 ksi
Density	0.164	0.164	lb/in³

Key points

- **Partial table.** Open Table 5.3.3.0(b) for other thicknesses.
- **Engine and nacelle repairs follow the manufacturer's manual.**

SOURCES · FAA AC 43.13-1B CHG 1 · FAA-H-8083-31B, Aviation Maintenance Technician Handbook, Airframe, Volume 1 · MIL-HDBK-5J, Metallic Materials and Elements for Aerospace Vehicle Structures · 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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