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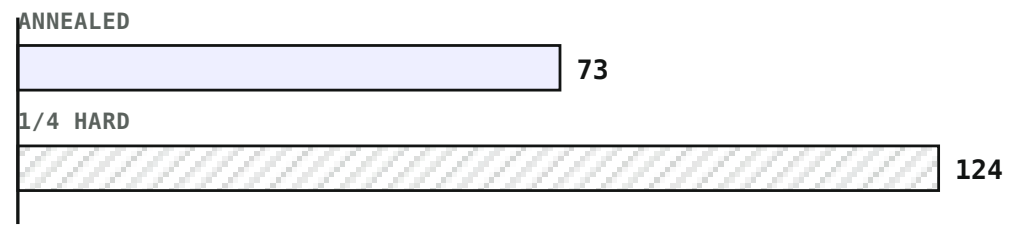
316 Stainless Steel

304 with molybdenum, chosen where chlorides are the enemy.

REFERENCE DRAWING — NOT APPROVED DATA · THE SRM ALWAYS GOVERNS

316 STAINLESS

FTU L, TWO TEMPERS COVERED · KSI



PARTS LIST

#	ITEM	NOTE	SRC
1	Annealed	AMS 5524	HDBK-5J
2	1/4 hard	AMS 5907	HDBK-5J
3	Weld rod	316L AWS A5.9	AC 43.13
4	Mo content	2-3 %	ASTM A240

READ BEFORE USE

VALUES BORROWED FROM THE 301 TABLE
ONLY TWO TEMPERS COVERED
WELD WITH 316L

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: 316 tempers			
DRAWING NO.: TAP-DWG-071	REV: A	SCALE: NTS	SHEET: 1 OF 1
APPLIES TO: Aircraft materials			
DO NOT SCALE DRAWING			

316 stainless: Ftu L, two tempers covered Values from MIL-HDBK-5J, S basis unless noted.

Key facts

Property	Value	Source
Composition	Chromium 16.0–18.0 %, nickel 10.0–14.0 %, molybdenum 2.0–3.0 %, carbon up to 0.08 %	ASTM A240/A240M Table 1 (UNS S31600)
Specs	AMS 5524 annealed, AMS 5907 ¼ hard	MIL-HDBK-5J, Table 2.7.1.0(b) footnote c
Allowables	The 301 table applies for those two conditions only	MIL-HDBK-5J, Table 2.7.1.0(b) footnote c
Welding rod	316L, AWS A5.9	AC 43.13-1B CHG 1, Table 4-15
Corrosion class	300 series: much more corrosion resistant than 400 series, particularly in a marine environment	AC 43.13-1B par. 6-164b

Design allowables — sheet and strip (properties of AISI 301 table, applicable to 316)

Temper	Specification	Ftu L / LT, ksi	Fty L / LT, ksi	Fsu, ksi	Basis
Annealed	AMS 5524	73 / 75	26 / 30	50	S
¼ hard	AMS 5907	124 / 122	69 / 67	66	A

Key points

- **Only two tempers are covered** and values are borrowed from 301.
- **Not a general upgrade to 304.** Use what the drawing says.

SOURCES · MIL-HDBK-5J, Metallic Materials and Elements for Aerospace Vehicle Structures · FAA AC 43.13-1B CHG 1 · FAA-H-8083-31B, Aviation Maintenance Technician Handbook, Airframe, Volume 1 · MMPDS · ASTM A240/A240M, Plate, Sheet, and Strip of Chromium and Chromium-Nickel Stainless Steel

SCAN · OPEN THIS GUIDE
theaviationpoint.com/materials/steel/316/

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