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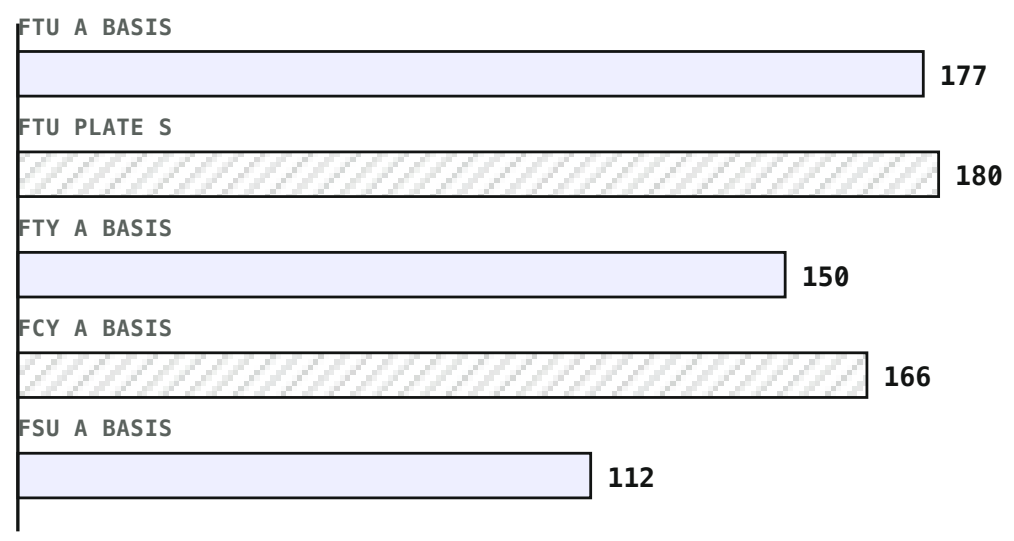
17-7PH Stainless Steel

The stainless sheet you form soft and then harden.

REFERENCE DRAWING — NOT APPROVED DATA · THE SRM ALWAYS GOVERNS

17-7PH

SHEET AND PLATE TH1050 · KSI



PARTS LIST

#	ITEM	NOTE	SRC
1	Sheet, plate	AMS 5528	HDBK-5J
2	Form in	Condition A	HDBK-5J
3	Growth	.0045 in/in	HDBK-5J
4	Service limit	600 F	HDBK-5J

READ BEFORE USE

FORM SOFT, HARDEN AFTER
NOT IN SERVICE IN CONDITION A
NO PICKLING OF SCALED PARTS

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			
17-7PH TH1050			
DRAWING NO.	REV	SCALE	SHEET
TAP-DWG-076	A	NTS	1 OF 1
APPLIES TO			
Aircraft materials			

DO NOT SCALE DRAWING

17-7PH: sheet and plate TH1050 Values from MIL-HDBK-5J, S basis unless noted.

Key facts

Property	Value	Source
Composition	Chromium 16–18 %, nickel 6.5–7.75 %, aluminum 0.75–1.5 %, carbon up to 0.09 %	Metal supplier's 17-7 PH datasheet, chemical composition (AMS 5528)
Related grade in the AC table	PH15-7Mo: carbon 0.09, chromium 15, nickel 7, molybdenum and aluminum	AC 43.13-1B CHG 1, Table 4-3
Sheet, plate	AMS 5528, TH1050	MIL-HDBK-5J, Table 2.6.10.0(b)
Service limit	High strength and good corrosion and oxidation resistance up to 600 °F	MIL-HDBK-5J, par. 2.6.10.0
Forming	Supplied in Condition A for ease of forming; readily cold formed	MIL-HDBK-5J, par. 2.6.10.0
Growth in hardening	Net growth 0.0045 in/in from Condition A to TH1050	MIL-HDBK-5J, par. 2.6.10.0

Design allowables — 17-7PH sheet and plate, TH1050 (AMS 5528)

Property	Sheet 0.015–0.187, A basis	Sheet 0.015–0.187, B basis	Plate 0.188–0.500 and 0.501–1.000, S	Unit
Ftu, LT	177	184	180	ksi
Fty, LT	150	167	150	ksi
Fcy, LT	166	185	166 (to 0.500)	ksi
Fsu	112	117	114 (to 0.500)	ksi
Elongation LT (S basis)	—	—	6	%
E	29.0	29.0	29.0	10^3 ksi
Density	0.276	0.276	0.276	lb/in³

Key points

- **Hardening growth 0.0045 in/in** must be planned for.
- **No A-to-service shortcut.**

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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SOURCES · MIL-HDBK-5J, Metallic Materials and Elements for Aerospace Vehicle Structures · FAA AC 43.13-1B CHG 1 · MMPDS · Metal supplier's 17-7 PH datasheet

SCAN · OPEN THIS GUIDE
theaviationpoint.com/materials/steel/17-7ph/

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