

17-4PH Stainless

Smiths Advanced Metals

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High Strength Stainless Steel Sheet

With high toughness and fatigue resistance.

17-4PH is chromium-nickel-copper stainless steel used for applications requiring high strength, high toughness, good corrosion resistance and high fatigue resistance.

17-4PH is a martensitic, precipitation-hardening stainless steel. The material offers good fabricability and can be age-hardened in a single low-temperature heat treatment. Corrosion resistance is the best of all standard hardenable stainless steels with similar performance to Type 304 in most environments. Due to the hardness of the material, formability is limited, although this may be improved significantly if the material is heat-treated before cold-working or hot-forming. 17-7PH is a versatile engineering material finding use in the production of nuclear components, aerospace parts and military structures.

We stock **17-4PH stainless steel sheets** in a wide range of thicknesses and conditions (including annealed, H900, H1025, H1100 and H1150 conditions). We also provide in-house processing services where we will cut your stainless sheets to exact sizes.



Grades / Specifications

- 1.4542
- UNS S17400
- AMS5604
- ASME SA693
- ASTM A693

Grades / Specifications

- High fatigue resistance
- Good resistance to corrosion
- High strength
- Readily weldable
- Similar corrosion resistance to Type 304

* Chemical Composition (weight %)

	C	Si	Mn	P	S	Cr	Ni	Cb	Cu	Mo
min.						15.00	3.00	5 X C	3.00	
max.	0.07	1.00	1.00	0.04	0.03	17.50	5.00	0.45	5.00	0.50

* As per AMS 5604

* Mechanical Properties

Condition	Tensile Strength	0.2 Yield Strength	Elongation	Reduction of Area
Condition A	185 ksi max	160 ksi	3%	
H900	190 ksi	170 ksi	10%	35%
H925	170 ksi	155 ksi	10%	35%
H1025	155 Ksi	145 ksi	12%	40%
H1075	145 ksi	125 ksi	13%	45%
H1100	140 ksi	115 ksi	14%	45%
H1150	135 ksi	105 ksi	16%	50%

* Properties as per AMS 5604, material over 0.625" up to and including 4"

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