

15-7PH Stainless

Smiths Advanced Metals

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Semi-Austenitic Stainless Sheet

Precipitation Hardened Stainless Steel.

15-7PH is a chromium-nickel-molybdenum-aluminium, semi-austenitic precipitation hardening stainless steel, used for applications requiring moderate corrosion resistance and high strength.

The alloy is weldable by conventional methods, although the material has less superior weldability when compared to other PH steels such as 17-4PH due to the amount of aluminium included in the alloying process. The product retains its excellent mechanical properties up to temperatures of 482°C (900°F). 15-7PH is easily formed in the annealed condition and offers minimum distortion after heat treatment. The alloy finds typical use in manufacturing aerospace components and also in spring applications where high strength is a requirement. The product also offers high hardness characteristics and corrosion resistance is superior when compared to standard hardenable stainless steels (410, 420 and 431).

We stock [15-7PH stainless steel sheets](#) in the annealed condition and offer a wide range of thicknesses which we will process for you in-house.



Grades / Specifications

- 1.4574
- UNS S15700
- AMS5520
- ASTM A693

Grades / Specifications

- Minimum distortion on heat treatment
- Good corrosion resistance
- High strength
- Easy formed once annealed

* Chemical Composition (weight %)

	C	Mn	P	S	Si	Cr	Ni	Mo	Al	Fe
min.						14.00	6.50	2.00	0.75	Bal
max.	0.09	1.00	0.040	0.030	1.00	16.00	7.75	3.00	1.50	Bal

* As per AMS 5520

* Mechanical Properties

Austenite Conditioning and Precipitation Heat Treatment

Size	Tensile Strength	0.2% Yield	Elongation	Hardness
0.038-0.13mm (excl.)	1,310 MPa min	1,172 MPa min	2% min	40 HRC min
0.13-0.25mm (excl.)	1,310 MPa min	1,172 MPa min	3% min	40 HRC min
0.25-0.51mm (excl.)	1,310 MPa min	1,172 MPa min	4% min	40 HRC min
0.51-4.763mm (excl.)	1,310 MPa min	1,172 MPa min	5% min	40 HRC min
4.763-12.70mm (incl.)	1,310 MPa min	1,172 MPa min	6% min	40 HRC min

* Properties as per AMS 5520

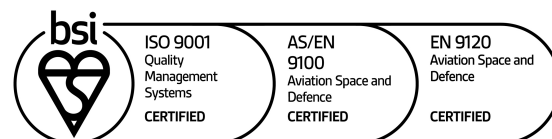
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