

Precipitation Hardening Stainless Steel

Typical Applications

- Tooling in the Aerospace Industry
- CNC components
- Gauge making
- General tooling
- Bulkheads
- Retaining rings
- Springs

Product Description

15-7 PH is a semi-austenitic precipitation-hardening stainless steel which combines high strength with hardness. The alloy has good corrosion resistance and minimum distortion when heat-treated. It is easily formed in the annealed condition, in the heat-treated condition 15-7 PH provides excellent mechanical properties at temperatures up to 900°F (482°C). Corrosion resistance is good and in certain environments, corrosion resistance mirrors chromium-nickel stainless steels. 15-7PH is weldable by common fusion and resistance methods but has a poor weldability rating when compared to 17-4PH.

Key features

- High strength and hardness
- Easily formed in annealed condition
- Good corrosion resistance
- Poorer weldability than 17-4

Availability

Bar

Corrosion resistance

Good

Weldability

Welding is by fusion and resistance methods. The alloy offers poorer weldability than 17-4.

Chemical Composition (weight %)

	C	Mn	P	S	Si	Cr	Ni	Mo	Al	Fe
min						14.00	6.50	2.00	0.75	Bal
max	0.06	1.00	0.04	0.04	1.00	16.00	7.75	3.00	1.50	Bal

Physical Properties

Melting Point:	2550 - 2640°F (1400 – 1450°C)
Density:	0.282 lbs/in ³ / 7.8 g/cm ³
Modulus of Elasticity in Tension:	29.0 x 10 ⁶ psi / 200 GPa

Technical Assistance

Our knowledgeable staff backed up by our resident team of qualified metallurgists and engineers, will be pleased to assist further on any technical topic.

www.smithmetal.com

sales@smithmetal.com

Biggleswade 01767 604604	Birmingham 0121 7284940	Bristol 0117 9712800	Chelmsford 01245 466664	Gateshead 0191 4695428	Horsham 01403 261981	Leeds 0113 3075167
London 020 72412430	Manchester 0161 7948650	Nottingham 0115 9254801	Norwich 01603 789878	Redruth 01209 315512	Verwood 01202 824347	General 0845 5273331



1930

All information in our data sheet is based on approximate testing and is stated to the best of our knowledge and belief. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of trading. © Smiths Metal Centres 2018

