15-5PH Stainless Steel (S15500)

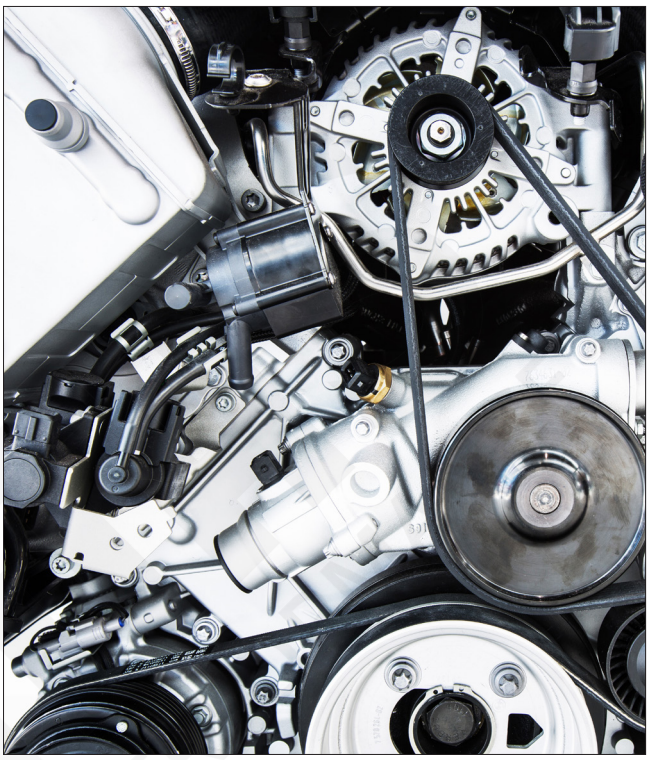
Smiths High Performance

High strength & corrosion resistance

15-5PH is a precipitation-hardening stainless steel conforming to AMS 5659 & AMS 5862.

15-5PH is a strong alloy benefitting from excellent transverse toughness.

The alloy is a derivative of 17-4PH stainless steel, offering attractive performance characteristics, including excellent transverse toughness and ductility from solution annealing and precipitation hardening - 15-5PH benefits from combined characteristics present in martensitic and austenitic material grades.



Heat treating 15-8PH:

The impressive mechanical properties of the alloy come to the forefront after heat treatment. Solution annealing is performed at temperatures ranging from 1010°C to 1150°C and subsequent precipitation hardening at 480°C. The resulting strength and toughness depend on the specific chosen temperature.

Workability & Machinability:

15-8PH precipitation-hardening stainless steel is often supplied in the solution-treated condition, making it readily machinable. The material also benefits from good workability, formability and weldability.

Corrosion Resistance

Corrosion resistance is good and is comparable with the corrosion resistant performance of other austenitic stainless steels.

Product Benefits:

- Good corrosion resistance
- High strength
- Good toughness
- Improved strength after heat treatment

Motorsport Applications:

- Engine parts
- Structural components
- Shafts
- Valves

About Smiths High Performance

Smiths High Performance is a leading stockholder and supplier of high-performance engineering materials. We are material supply chain partners supporting **high-technology market sectors**.

SCAN ME

Further technical data available on the reverse of this Datasheet

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* Chemical Composition (weight, %)

	C	Mn	P	S	Si	Cr	Ni	Mo	Cu	Nb
Min:						14.00	3.50		2.50	5xC
Max:	0.07	1.00	0.030	0.015	1.00	15.50	5.50	0.50	4.50	0.45

* As per AMS 5659

* Mechanical Properties (minium)

Condition	Tensile Strength MPa	0.2% Proof Strength MPa	Elongation on 4D G.L.%	Reduction of Area %
H900	1,310	1,172	10	35
H925	1,172	1,069	10	38
H1025	1,069	1,000	12	45
H1075	1,000	862	13	45
H1100	965	793	14	45
H1150	931	724	16	50

* Properties as per AMS 5659, longitudinal

...where performance matters...

When you purchase high-performance materials from **Smiths High Performance**, you will join some of the biggest and best global engineering companies. We are a Tier 1 supply chain partner to the world's leading motorsport companies. Our unique business structure and ethos allow us to offer services otherwise unavailable in this market sector.

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