

15-5PH Stainless

Smiths Advanced Metals

Rev: SAM/datasheets/stainless-steel-bar/13-5ph/feb-2022

Page: 1 of 1

PH Stainless Steel Bar

American Aerospace Grade

15-5PH is an American aerospace grade martensitic precipitation hardening stainless steel. The alloy is a variant of 17-4PH alloy, developed to offer improved toughness.

15-5PH offers all the attractive performance characteristics of 17-4PH, including excellent ductility and transverse notch toughness - all from a single, low-temperature heat treatment. Heat treatment is conducted at a temperature range of 482°C (900°F) to 621°C (1150°F) though specific figures are dictated by the actual toughness and strength required. The alloy also offers good corrosion resistance, and the mechanical properties are also superior when compared to 17-4PH in larger sections. Typical applications for this material include oil and gas sector components, aircraft flap tracks, engine pylons, structural aerospace components, chemical processing equipment and nuclear reactor components.

We stock [15-5PH stainless steel bars](#) in a wide range of sizes, shapes and tempers (including annealed, H950, H1025, H1050, H1100 and H1150 tempers).



Grades / Specifications

- 1.4545
- UNS S15500
- AMS5659
- ASTM A564
- BAC5619
- DIN65038
- Z7CNU 15.05

Benefits

- Moderate corrosion resistance
- High strength developed by ageing treatment
- Excellent transverse toughness
- Good corrosion resistance

* 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 (minimum)

Condition	Tensile Strength (MPa)	0.2% Proof Stress (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

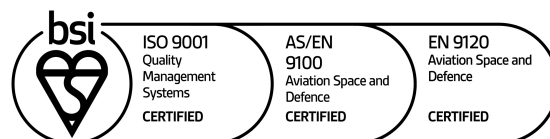
* Properties as per AMS 5659, longitudinal

www.smithsadvanced.com

info@smithsadvanced.com



Stratton Business Park,
London Road, Biggleswade,
Bedfordshire SG18 8QB
Tel: **+44 (0) 1767 604710**



ISO 9001
Quality
Management
Systems
CERTIFIED

AS/EN
9100
Aviation Space and
Defence
CERTIFIED

EN 9120
Aviation Space and
Defence
CERTIFIED



1930