

S130

Smiths Advanced Metals

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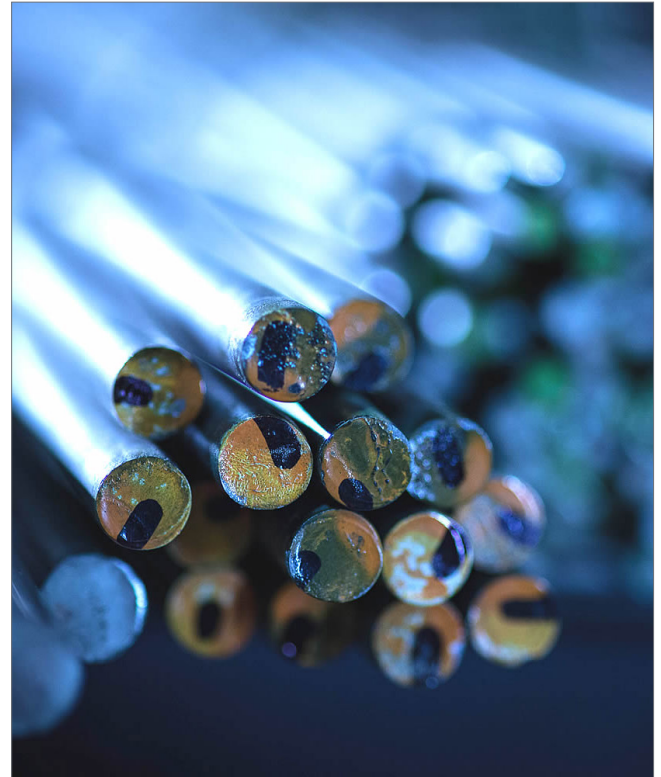
Austenitic Stainless Steel Bar

Stabilised with Niobium.

S130 is an austenitic 18% chromium and 9% nickel and a BS aerospace grade stainless steel. The alloy is niobium stabilised to overcome the risk of intergranular corrosion, which is typical of certain stainless steels after exposure to temperatures of 430 to 820°C.

The material is non-magnetic and cannot be hardened by subsequent heat treatment. With good formability and cold working characteristics, S130 offers a machinability rating of approximately 36% (with 1212 rated at 100%). The addition of niobium prevents sensitisation (weld decay) and may be welded by most standard methods except forge and hammer welding. Post weld heat treatment is not required with this alloy. With high corrosion resistance, the alloy also offers good oxidation resistance. The material is particularly suited to welded structures and finds use in aerospace components and fasteners, nuclear components and food processing applications.

We supply [S130 stainless steel bars](#) in various sizes and stock the material in the solution treated condition. We also process your stainless steel bars in-house via our dedicated bar cutting service.



Grades / Specifications

- 1.4546
- 347S31
- AISI 347
- UNS S34700
- X5CrNiNb18-10
- AMS5646
- AMSQQS763
- ASTM A276
- ASTM A479
- BS S100
- BS S130
- MSRR6522

Benefits

- Good formability
- Good resistance to atmospheric corrosion
- Good weldability
- Resists intergranular corrosion
- Non-magnetic

Chemical Composition (weight %)

	C	Si	Mn	P	S	Cr	Mo	Ni	Nb
min.		0.20	0.50			17.00		8.00	10 XC
max.	0.08	1.00	2.00	0.035	0.025	19.00	0.70	11.00	1.10

* As per BS S130

Mechanical Properties

Tensile Strength	540 MPa
0.2% Proof Stress	210 MPa
Elongation on 5.65√S ⁰	35%
Hardness	≤ 255 HB

* Properties as per BS S130, B and D condition

Global Supply

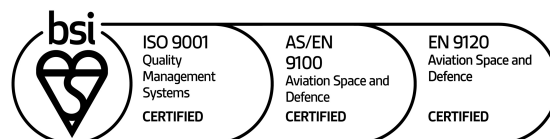
Smiths Advanced Metals has a dedicated and experienced export department. We ship engineering raw materials globally and are fully trained to understand the necessary paperwork and export laws to ensure you receive your materials quickly and to the highest quality standards.

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