Smiths Advanced Metals



Rev: SAM/datasheets/speciality-steels/s98-bar/feb-2022

Page: 1 of 1

Aerospace Grade Steel Bar

High Tensile Strength & Toughness

S98 steel bars offer high strength and toughness and finds typical suitability in applications where superior tensile and yield strength is required.

This case-hardened steel contains nickel, chromium and molybdenum as key alloying elements and offers 730HV after carburising, quenching, sub-zero treatment and tempering processes. Produced to British Standards, steel bars and forgings should be ultrasonically examined if at all possible.

S98 offers good creep resistance and toughness and good performance at elevated temperatures. Although known as aerospace-grade steel, the alloy also finds use in various commercial engineering applications, including oil & gas and motorsport. The material is used to produce hydraulic shafts, connecting rods, sockets and spindles.

BS S98

We stock S98 steel bars in a wide range of sizes and conditions (including normalised and softened conditions).

Grades / Specifications

- 1.6745
- 826M40
- EN26
- BS S100



Benefits

- Good mechanical properties at low temperatures
- Good ductility
- High strength
- Good creep resistance and toughness

*Chem	nical Com	nposition	ា (weight %)						
	С	Si	Mn	Р	S	Cr	Мо	Ni	Al
min.	0.36	0.10	0.45			0.50	0.45	2.30	0.015
max.	0.44	0.35	0.70	0.025	0.015	0.80	0.65	2.80	0.050

^{*} As per BS S98

	*Mechanical Properties									
	Form	Tensile Strength	Proof Strength	Elongation	Hardness					
S98B 1,160 - 1,310 MPa 1,000 MPa min 10% min 341 - 388 H	S98B	1,160 - 1,310 MPa	1,000 MPa min	10% min	341 - 388 HBW					
S98D 1,160 - 1,310 MPa 1,000 MPa min 10% min 341 - 388 HI	S98D	1,160 - 1,310 MPa	1,000 MPa min	10% min	341 - 388 HBW					

^{*} Properties as per BS S98, black bar and bright bar

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1930