

Aerospace Steel Bar

Product Description

BS S95 is an aerospace steel bar product which offers very high strength and is suitable for use in elevated temperature service applications. The alloy offers a combination of good creep resistance and high notch toughness. The material is a proven performer in long term service applications. BS S95 is produced by EAF/VD/LF followed by electroslag refining (ESR) if necessary for special purposes. The alloy is used in a wide variety of applications including aerospace, military, power generation and chemical processing sectors.

Availability

Bar

Typical Applications

- Pressure vessels
- Gears and shafts
- Structural aerospace applications
- Turbine fasteners
- Boiler support rods
- Machine tools

Key Features

- Good creep resistance and high notch toughness
- Used in elevated temperature service applications
- High tensile strength
- Supplied in the bright annealed condition
- Good ductility and wear resistance
- Easily treatable

Chemical Composition (weight %)

Weight (%)	C	Si	Mn	P	S	Cr	Mo	Ni
Min	0.36	0.15	0.45			1.1	0.20	1.3
Max	0.44	0.35	0.70	0.035	0.030	1.4	0.35	1.7

Mechanical Properties

Tensile Strength	883 to 1080 MPa
Yield Strength	686 MPa min
Elongation (%)	12 min
Charpy V-Notch	54.25 J min @ room temperature
Hardness in final heat treated condition:	255 - 321 HB or 270 - 340 HV
Hardness in the softened condition:	248 HB max

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.

UK Service Centres:

Smiths Belfast	02895 908 897	Smiths Leeds	0113 307 5167
Smiths Biggleswade	01767 604 704	Smiths Manchester	0161 794 8650
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Quality & Testing:



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