BS S62

Smiths Advanced Metals

Hardness & Wear Resistance

13% chromium martensitic stainless steel bar.

BS S62 is a martensitic stainless steel bar for aerospace use, similar to Type 420, with more carbon than Type 410 for greater hardness, strength and wear resistance.

Its corrosion resistance comes from 12–14% chromium and is best in the hardened condition. The alloy can be welded, although it is not often welded in service.

With 12–14% chromium, it resists the atmosphere, fresh water and mildly corrosive environments. It performs best when hardened, with a ground or polished surface.

We stock BS S62 stainless steel as bright round bar (S62D) in a broad range of sizes.



Grades / Specifications

- BS S62
- MSRR 6602
- 420S37 (similar)
- W.Nr 1.4021 (similar)

Benefits

- High hardness & strength
- Good wear resistance
- Good corrosion resistance when hardened

Chemical Composition (weight %)

	C	Si	Mn	P	S	Cr	Ni
min.	0.18					12.0	
max.	0.25	0.80	1.00	0.030	0.025	14.0	1.00

Mechanical Properties (hardened & tempered)

Condition	Tensile Strength (MPa)	0.2% Proof Stress (MPa)	Elongation (%)	Hardness (HB)
S62D	696–853	530 min	15 min	201–255

Key Applications

- Aerospace components
- Pump shafts
- Medical instruments
- Plastic moulds
- Hand tools

Compared with Type 410

Type 410 contains up to 0.15% carbon, while BS S62 contains 0.18–0.25%. The extra carbon raises the hardness and wear resistance reached after heat treatment.

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bsi ISO 9001 Quality Management Systems CERTIFIED
AS/EN 9100 Aviation Space and Defence CERTIFIED
EN 9120 Aviation Space and Defence CERTIFIED
UKAS TESTING 1930

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