

# BS S132 Steel

Smiths High Performance



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## High Core Strength

Case hardened alloy steel, containing chromium, molybdenum & vanadium.

The alloy is produced by vacuum arc remelting (VAR) or air melting, resulting in a material with excellent transverse properties.

Once nitrided, the resulting alloy possesses a hard outer casing with a tensile strength of 1,320 to 1,470 MPa. The alloy is produced by ESR (electroslag refining) or VAR (vacuum arc remelting), and both supply options are available. We supply **BS S132** nitriding steel in bright and softened delivery conditions.

With such high core strength and hardenability, the material is ideal for specific motorsport engineering applications, including engine components, crankshafts and gudgeon pins. BS S132 is an attractive engineering alloy for the manufacturing of components which are subjected to high stress.



### \*Chemical Composition (weight %)

	C	Si	Mn	P	S	Cr	Mo	Ni	Sn	V	Fe
Min.	0.35	0.10	0.40			3.00	0.80			0.15	Bal
Max.	0.43	0.35	0.70	0.020	0.020	3.50	1.10	0.30	0.030	0.25	

\* Properties as per BS S132

### \*Mechanical Properties (typical)

Tensile Strength	0.2% Proof Strength	Elongation	Reduction of Area	Izod Impact, ft lbf	Hardness (heat treated)
1,320 - 1,470 MPa	1,130 MPa	8%	35%	20	388 - 429 HB

\* Properties as per BS S132

### Benefits:

- Case hardened
- High tensile strength
- Impressive core strength
- Wear resistant

### Motorsport Applications:

- Crankshafts
- Gudgeon pins
- Engine components
- Gearboxes


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