

# EN40B Steel (722M24)

Smiths High Performance



Revision: SHP/english/datasheets/en40b/12.02.2025

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## Nitriding Steel

EN40B (722M24) is ideal for nitriding, which creates a wear-resistant case-hardened finish.

The engineering steel alloy finds use in many motorsport applications and is particularly suited for producing crankshafts.

EN40B is a high-tensile steel benefitting from good toughness and wear resistance. Due to the material's fine-grain microstructure, the alloy offers resistance to impact and shock without breaking or fracture. Our material is highly suitable for highly stressed applications and where components are subject to wear and abrasion. EN40B is weldable, but precautions are required to ensure the material is unaffected and not prone to cracking. Preheating with subsequent post-weld heat treatment is advisable as the carbon content is high.

### \* Chemical Composition (weight, %)

	C	Si	Mn	P	S	Cr	Mo
Min.	0.20	0.10	0.45			3.00	0.45
Max.	0.28	0.40	0.70	0.035	0.040	3.50	0.65

\* Properties as per BS 970



### Motorsport Applications:

- Crankshafts
- Pistons & bearings
- Con rods
- Bolts & fixings



### About Smiths High Performance

Smiths High Performance is a leading stockholder and supplier of high-performance engineering materials. We are material supply chain partners supporting high-technology market sectors.

### Crankshaft Production:

Crankshafts in EN40B are typically manufactured from forged EN40B or billets with bored holes to reduce weight before stress-relieving, nitriding and heat treatment, which raises the core strength of the alloy.

[www.smithshp.com](http://www.smithshp.com)
[info@smithshp.com](mailto:info@smithshp.com)


Unit 3, Juno Place  
Stratton Business Park  
Biggleswade SG18 8XP

Tel: +44 (0)1767 604 708



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