



EN36 Black Steel Bars (16mmâ??150mm) | Rolled & Annealed for Case Hardening Applications

et Industrie EN36 is a low-carbon nickel-chromium steel known for its excellent case hardenability and core toughness. When carburized and heat treated, it develops a high surface hardness with a ductile and tough core, making it ideal for heavily loaded, wear-resistant components.

At Steelmet Industries, we supply EN36 black bars in diameters from 16mm to 150mm, available in hot rolled or annealed condition, tailored to your case hardening process requirements.

Key Properties of EN36 Black Bars

Standard: BS970:1955

• Grade: EN36

Carbon Content: ~0.12â??0.18%

Nickel Content: ~3.00â??3.75%

• Chromium Content: ~0.8â??1.1%

Delivery Conditions: Rolled / Annealed

• Form: Round Bars, Black Bars



- Size Range: 16mm to 150mm
- Machinability: Good in annealed condition
- Case Hardening: Excellent (carburizing depth up to 2.5mm)
- Applications: Gears, shafts, aerospace pins, camshafts, heavy-duty rollers

Applications of EN36

EN36 black steel bars are widely used in:

- black steel bars are widely used.

 Components (gears, shafts, hubs)

 Transmission components (gears, shafts, hubs)
- Camshafts and crankshafts
- Pins and rollers in heavy machines
- Defense and aerospace-grade parts
- Automotive wear-resistant components

Its popularity in demanding mechanical applications stems from its durability, excellent wear resistance, and impact strength after carburizing.

Related Grades and Variants

Steelmet Industries also offers EN36 variants and equivalent grades, each with slightly adjusted chemistries to suit particular applications:

Grade	C (%)	Cr (%)	Ni (%)	Mo (%)	Use Notes
EN36	0.12â??0.18	0.8â??1.1	3.0â??3.75	â??	Standard case hardening steel
EN36A	0.14â??0.19	0.9â??1.1	3.25	â??	Improved case depth and hardness
EN36B	0.14â??0.19	0.9â??1.1	3.5	â??	Aerospace-grade case hardening
EN36C	0.16â??0.20	1.0â??1.2	3.5â??3.75	â??	Enhanced wear and heat resistance



C (%) **Use Notes** Grade Cr (%) Ni (%) Mo (%)

0.35â??0.45 1.2â??1.5 1.3â??1.8 0.2â??0.4 Higher core strength alternative EN26

Variants like EN36A/B/C and EN26 are supplied subject to availability and customer specifications. Contact us for exact specifications and documentation.

International Equivalent Grades

Standard Grade / Equivalent

BS970:1991 655M17

AISI / SAE 8620 (close)

17NiCrMo6 / 1.6587

ISO

IS

GOST

GB (China) 20CrNiMo

17CrNiMo6
SNCM220
SICM220
SICM Disclaimer: Grade equivalents are based on chemical composition and are subject to applicationspecific requirements. Please verify with actual mechanical and metallurgical properties before final Stee use.

Why Choose Steelmet Industries?

At Steelmet Industries, we serve both **domestic and global markets** with:

- â? Wide size range â?? From 16mm up to 150mm
- â??ï Custom lengths and size tolerances on request
- ð?§¾ Full documentation support â?? MTCs, third-party inspection, lorry receipts, test reports
- ð??! Prompt and scheduled deliveries
- ð??• Material traceability and accountability
- ð?? ï.• Also available in other forms: EN36 rounds in bright or forged forms on request



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Frequently Asked Questions â?? EN36 Bars

Q1. What are EN36 black bars used for?

Answer: EN36 black bars are widely used for components like gears, camshafts, and shafts that need a hard, wear-resistant surface and a tough core after carburizing.

Q2. How is EN36 different from EN36B or EN26?

Answer: EN36B has tighter control and better case hardening response, often used in aerospace. EN26 has higher carbon and molybdenum, offering better core strength.

Q3. Can Steelmet provide third-party inspection and full traceability?

Answer: Yes. Steelmet Industries can provide full documentation and third-party inspection reports tainless Steels upon prior agreement.

Q4. Are EN36 bars supplied in annealed condition?

Answer: Yes. EN36 black bars can be supplied in either rolled or annealed condition based on customer need.

Contact Us for EN36 Black Bar Requirements

ð??© Submit an enquiry here: Steelmet Enquiry Form

ð??• Website: www.steelmet.in ð??? India: 0712-2728071

ð??± WhatsApp: +917122728071 ð??? International: +91-712-2728071

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Steelmet Industries - Bright Bars, Alloy Steels, Stainless Steels