

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

Steelmet Industries - Bright Bars, Alloy Steels, Free Cutting Steels, Stainless Steels

DescripciÃ³n

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

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EN36 black steel bars are widely used in:

- **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

Grade	C (%)	Cr (%)	Ni (%)	Mo (%)	Use Notes
EN26	0.35â??0.45	1.2â??1.5	1.3â??1.8	0.2â??0.4	Higher core strength alternative

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)
DIN	17NiCrMo6 / 1.6587
ISO	17CrNiMo6
JIS	SNCM220
IS	17CrNiMo6
GOST	18Ð¥Ð?Ð•Ð? (18KhGNM)
GB (China)	20CrNiMo

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Disclaimer: Grade equivalents are based on chemical composition and are subject to application-specific requirements. Please verify with actual mechanical and metallurgical properties before final 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

Explore our services:
ð??? What We Do
ð??? Our Quality Policy
ð??? View Specifications

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 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.

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Contact Us for EN36 Black Bar Requirements

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

1. GuÃa de Grados
2. Posts

Etiquetas

1. BS970 Steel Bars
2. Carburizing Steel India
3. EN26
4. EN36 Supplier

5. EN36
6. EN36A
7. EN36B
8. EN36C
9. Nickel Chromium Steel
10. Rolled Annealed Steel

Fecha
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