



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

EN36 Black Steel Bars

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:** ~0.12 to 0.18%
- **Nickel Content:** ~3.00 to 3.75%
- **Chromium Content:** ~0.8 to 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:

- **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 | 0.12-0.18 | 0.8-1.1 | 3.0-3.75 | | Standard case hardening steel |
| EN36A | 0.14-0.19 | 0.9-1.1 | 3.25 | | Improved case depth and hardness |
| EN36B | 0.14-0.19 | 0.9-1.1 | 3.5 | | Aerospace-grade case hardening |
| EN36C | 0.16-0.20 | 1.0-1.2 | 3.5-3.75 | | Enhanced wear and heat resistance |

| Grade | C (%) | Cr (%) | Ni (%) | Mo (%) | Use Notes |
|-------|-----------|---------|---------|---------|----------------------------------|
| EN26 | 0.35-0.45 | 1.2-1.5 | 1.3-1.8 | 0.2-0.4 | 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 | 18ÐÑÐÑÐÑ (18KhGNM) |
| GB (China) | 20CrNiMo |

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:

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

Explore our services:

• [What We Do](#)

• [Our Quality Policy](#)

• [View Specifications](#)

Frequently Asked Questions about 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.

Contact Us for EN36 Black Bar Requirements

• Submit an enquiry here: [Steelmet Enquiry Form](#)

• Website: www.steelmet.in

• India: 0712-2728071

• WhatsApp: +917122728071

• International: +91-712-2728071

आपका EN36 ब्लैक बार का उपयोग क्या है?

1. Posts

आपका EN36 ब्लैक बार किस स्थिति में है?

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

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

Date

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admin

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