



## EN8 Hot Rolled Black Square Bars 16mm to 150mm Tough Medium Carbon Steel for Engineering Use

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**EN8**, as per **BS970:1955**, is a widely used medium carbon steel offering an ideal balance between strength, hardness, and machinability. At **Steelmet Industries**, we supply **EN8 Hot Rolled Black Square Bars** in a comprehensive size range from **16mm to 150mm**, serving diverse sectors such as heavy engineering, agriculture, tool making, and automotive component manufacturing.

Hot rolled square bars provide a robust starting material for forgings, machine bases, structural applications, and heavy-duty components where tight dimensional tolerances are not critical in the as-supplied condition.

### Key Technical Details

- **Standard:** BS970:1955
- **Grade:** EN8
- **Shape:** Square (Hot Rolled, Black Finish)
- **Size Range:** 16mm to 150mm
- **Condition:** As Rolled / Annealed (on request)
- **Finish:** Black surface with mill scale

- **Hardness:** ~180-230 BHN (As Rolled)
  - **Machinability:** Moderate
  - **Heat Treatment:** Suitable for hardening and tempering
  - **Weldability:** Limited - Preheat recommended
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## Applications of EN8 Black Squares

- Forgings, shafts, and levers
  - Machine tool frames and plates
  - Bushes, clamps, and guide blocks
  - Agricultural and construction equipment
  - Heavy-duty tools and dies
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## Advantages of EN8 Hot Rolled Squares

- Good strength and toughness balance
  - Cost-effective for structural or forging use
  - Readily available in multiple sizes
  - Suitable for hardening and further machining
  - Durable material for rugged environments
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## Also Available from Steelmet Industries

- EN8 in **Rounds, Hexagons, and Flats**
- **Cold Drawn Bright Squares** for tighter tolerances
- Custom supply in **cut lengths** and bulk packaging
- Higher-purity **EN8D variant** on request
- Steel bars per **EN8, EN9, C45, SAE1045, 1040, S45C**

Explore our manufacturing capabilities at [What We Do](#)

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## Global Grade Equivalents for EN8

Standard	Equivalent Grade
AISI / SAE	1040 / 1045
EN (New)	C45E / C40E (EN10083)
DIN	CK45 / 1.1191
ISO	C45
JIS	S45C
GOST	45
IS	IS 1570 C45
BS (Old)	EN8
BS (New)	080M40
GB (China)	45#

*Note: Equivalent grades listed above are based on similar chemical composition. Users should verify exact mechanical properties and applications before substitution. For more, see [BS970:1955 Specification](#).*

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## Steelmet Industries – Consistency You Can Count On

- Wide size range – **16mm to 150mm square**

- **Custom lengths** and **cut-to-size** services
- **Documentation** support **MTCs**, **TCs**, lorry receipts, inspection reports
- **Scheduled delivery** support for industrial projects
- **Serving India and international markets** since decades
- **Trusted for engineering-grade steels**

See our [Quality Policy](#) and explore other [Specifications](#)

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## Frequently Asked Questions **EN8 Black Square Bars**

### **Q1: What is the surface condition of EN8 hot rolled black squares?**

**A:** These bars have a black oxide layer (mill scale) from the hot rolling process, suitable for rough machining or forging applications.

### **Q2: Are EN8 black squares supplied annealed?**

**A:** As standard, they are hot rolled. Annealing or normalizing can be arranged upon request for better machinability.

### **Q3: Can I get third-party inspection or test certificates?**

**A:** Yes. Upon prior agreement, Steelmet Industries can supply third-party inspection reports, internal QC reports, and MTCs.

### **Q4: Is EN8 black square weldable?**

**A:** It is weldable with pre-heating and post-weld treatment. Welding is not as straightforward as low-carbon steels.

### **Q5: What sizes are available ex-stock?**

**A:** Sizes from **16mm to 150mm square** are commonly available. Custom requirements can also be produced.

