

080M15 (EN32)

CASE HARDENING ENGINEERING STEEL

We are a division of the Smiths Metal Centres Limited Group

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080M15 is a low tensile strength bright drawn engineering steel.

The material is an unalloyed low carbon steel engineering grade, offering a hard outer encasement surface and solid internal core when case hardened. Ideal for general engineering applications and the production of lightly stressed components.

Chemical Composition (weight, %)

	C	Si	Mn	P	S
Min.	0.12	0.10	0.60		
Max.	0.18	0.40	1.00	0.05	0.05

* Properties as per BS 970

Wear Resistance:

Where good wear resistance is required, this class of engineering steel should be considered for lightly stressed applications. Alternative engineering steels should be considered when extra strength and resistance are needed.

Machinability:

080M15 is readily machinable and weldable steel from the point of supply. Compared to equivalent mild steel, the product is produced to finer sectional tolerances due to being a cold-drawn material.

Tempering:

For maximum case toughness and stress relief of this class of steel, tempering is recommended within a tempering range of 150 – 200°C. A core strength of up to 490 N/mm² can be achieved for carburised components.

Case Hardening:

The material is a popular choice for case hardening, suitable for surfaces free of debris and low sulphur content. Case hardening is preferably carried out in salt baths to ensure maximum wear resistance is achieved.

Benefits:

- Case-hardened engineering steel
- For lightly stressed components
- Readily machinable and weldable
- The equivalent of EN3B, but for case hardening work

Applications:

080M15 (EN32) is a general engineering steel ideal for producing lightly stressed parts and components. Application examples include spindles and gears, bushes, rollers and cams. We stock **080M15** in round and square bars.