

# 605M36T (EN16T)

THROUGH HARDENING ENGINEERING STEEL

We are a division of the Smiths Metal Centres Limited Group

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**605M36T (EN16T)** through-hardening low alloy engineering steel contains manganese and silicon.

The alloy shares many characteristics compared to 080M40T (EN8) in terms of mechanical properties. However, **605M36T** provides greater frictional and shear loading resistance, essential for applications for a material subjected to shearing forces, such as cutting tools.

### Chemical Composition (weight, %)

	C	Si	Mn	P	S	Mo
Min.	0.32	0.10	1.30			0.22
Max.	0.40	0.40	1.70	0.035	0.040	0.32

\* Properties as per BS 970

### Material Features:

The alloy benefits from numerous characteristics making the product suitable for various engineering applications. The material combines high yield and high tensile strength, offering good wear resistance and toughness. Superior shock resistance and excellent ductility result in a highly versatile alloy. We supply **605M36T** hardened and tempered to achieve the 'T' supply condition. The corrosion resistance of the alloy is limited, but improvements are possible with surface treatments such as nitriding, galvanising, electroplating and passivation.

### Machining:

The steel grade provides good machinability using the correct cutting tool and lubricant. Lubricating will ensure the material does not overheat while extending tool life. We recommend sharp carbide cutting tools due to the alloy's hardness and wear resistance.

### Applications:

**605M36T** finds use in the following engineering applications:

- Cutting tools
- Fasteners, shafts, spindles and axles
- Structural components
- Gears and crankshafts

Through-hardening steels offer a broad range of uses from general engineering to more specific market sectors.

### Availability:

We stock **605M36T** in round and square bars of various diameters. We supply the product in standard lengths or cut to your specific size requirements.

