EN24T (817M40T) is a bright drawn nickel chromium molybdenum through hardening steel which can be heat treated to produce a wide range of strengths. Heat treatment and tempering can both be achieved with minimum surface scaling. EN24T also benefits from good hardenability and wear resistance and is an ideal material for use in the production of dies and punches.

**Hardenability**

Due to its hardenability capabilities, EN24T is used extensively in heavy duty applications where hardness, wear resistance and tensile strength is of prime importance. Supplied in the quenched and tempered or ‘T’ condition, the alloy can be further surface hardened up to 60 HRC by nitriding or flame induction processes, which will further enhance the material’s wear characteristics. Note that in the ‘T’ supplied condition, EN24T bars greater than 250mm in diameter may suffer from reduced mechanical properties when approaching the centre of the material.

To improve centre core mechanical properties, it is recommended that larger sizes are annealed. Bar and billets supplied in the annealed state also benefit from improved machinability.

**Material Specifications**

Good impact values for EN24T (817M40T) at low service temperatures is another feature of this material and for this reason, EN24T has become a popular material in offshore applications such as in marine mechanical handling equipment and hydraulic bolt tensioners.

**Machinability**

Whilst EN24T is classed as a readily machinable product it is more difficult to machine and use of carbide in the machining process is essential.

EN24T (817M40T) can be machined when hardened with stainless tip tools. There is a greater likelihood of shear loading when compared to other engineering steels such as EN16 and EN19.

**Product Availability**

Round, square and flat bar and plate, which is supplied in the ‘T’ condition.

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FOR CHEMICAL AND MECHANICAL PROPERTIES, PLEASE REFER TO THE REVERSE SIDE OF THIS TECHNICAL DATASHEET
Thames Stockholders is one of the UK’s leading suppliers of engineering steels. We stock EN24T (817M40T) in round, square and flat bar and plate, which is supplied in the ‘T’ condition. We offer our stock products to both domestic and international customers. We can also process your products internally and cut your material to your exact size requirements. With ideal proximity to the UK’s main motorway network and ports, our location is ideal for the supply and distribution of high-quality engineering steels.

To discover more about our products and to receive a competitive quotation, please call Thames Stockholders today to speak to a member of our technical team on +44 (0)20 8805 3282.