

EN16T Alloy Steel

EN16T, EN16 steel stockholders and suppliers, delivering to the whole of the UK. This grades is commonly supplied as EN16T to the BS970 specification. It is a low alloy high tensile steel supplied with a tensile range of 850 to 1000 N/mm² depending on ruling section. EN16T has a good resistance to shock with excellent ductility. It offers relief from temper brittleness. Subject to ruling section larger sizes in EN16 can be supplied in other condition such as EN16R and EN16S. EN16 as rolled (un heat treated) is also available, usually in larger diameters. EN16 is an alternative alloy steel grade to other chromium and nickel chromium high tensile steel specifications, offering excellent ductility, freedom from temper brittleness and is readily machinable in the supply condition.

We welcome export enquiries for alloy steel. Contact our sales office and consult our [shipping policy](#) for further details.

Alternative grades we supply

[EN19T](#) | [EN24T](#) | [EN26W](#) | [EN30B](#) | [EN31](#) | [EN32](#) | [EN36](#) | [EN40B](#) | [EN41B](#) |

Form of Supply

West Yorkshire Steel are stockholders and suppliers of EN16 & EN16T in round bar. Diameters in EN16T can be sawn to your required lengths as one offs or multiple cut pieces. Ground steel bar can be supplied, providing a high tensile engineering steel precision ground to tight tolerances. A limited stock is also available in free machining grade EN16MT.

- Diameter
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Applications

Commonly used for general engineering applications EN16T is suitable for applications such as high tensile shafts, bolts and nuts, gears, pinions spindles and the like.

Analysis

| | | | |
|------------|------------|-------------|------------|
| Carbon | 0.30-0.40% | Sulphur | 0.050% max |
| Manganese | 1.30-1.80% | Phosphorous | 0.035% max |
| Molybdenum | 0.20-0.35% | | |
| Silicon | 0.10-0.35% | | |

Annealing

Heat slowly to 640-660°C. Cool in air.

Hardening

This steel grade is commonly supplied ready heat treated. If further heat treatment is required annealed EN16 should be heated slowly to 840-870°C and after adequate soaking at this temperature quench in oil. Temper as soon as tools reach room temperature.

Tempering

Heat carefully to a suitable temperature selected by reference to a tempering chart or table. Soak at the temperature for 2 hours per 25mm of ruling section, then allow to cool in air. Tempering between 250-375°C is not advised as tempering within this range will seriously reduce the impact value.

Typical Mechanical Properties*

| Condition | Tensile N/mm ² | Yield N/mm ² | Elongation % | Izod KCV J | Hardness Brinell |
|-----------|------------------------------|----------------------------|-----------------|---------------|---------------------|
| R | 700-850 | 525 | 17 | 28 | 201-255 |
| S | 775-925 | 585 | 15 | 50 | 223-277 |
| T | 850-1000 | 680 | 13 | 50 | 248-302 |

(*subject to ruling section)

Heat Treatment

Heat treatment temperatures, including rate of heating, cooling and soaking times will vary due to factors such as the shape and size of each steel component. Other considerations during the heat treatment process include the type of furnace, quenching medium and work piece transfer facilities. Please consult your heat treatment provider for full guidance on heat treatment of alloy steel.

Certification

EN16T alloy steel is available with cast and analysis certificate or a BS EN 10204 3.1 mill certificate, please request when placing any orders.

Quality Assured Supply

EN16T bar is supplied in accordance with our ISO 9001:2015 registration.