

## 42CrMo4 Alloy Steel

**42CrMo4 steel stockholders and suppliers which we can deliver to the whole of the UK.** As a quality alloy steel grade 42CrMo4 is commonly supplied quenched and tempered (QT) which offers good high tensile properties. It is characterised by its good ductility and shock resistant properties that combines with good wear resistance. Suitable for nitriding which gives a shallow depth wear resistant case to provide maximum wear and abrasion resistance. Also suitable for induction or flame hardening which can give a case hardness of 50 HRc or higher.

We welcome export enquiries for 42CrMo4 alloy steel. Contact our sales office and consult our [shipping policy](#) for further details.

### Equivalent DIN standard 1.7225

### Form of Supply

West Yorkshire Steel are stockholders and suppliers of 42CrMo4T round bar and flat section bandsaw cut. Diameters can be sawn to your required lengths as one offs or multiple cut pieces. It can also be supplied as centreless ground round bar and machined or ground flat pieces.

- Flat
- Diameter

### Applications

As a chromium molybdenum (chrome moly) alloy steel 42CrMo4 is suited for a wide variety of applications where good tensile properties are required. It is used in sectors such as oil and gas and the car industry for applications such as pinions, gears, crankshafts, spindles and pins.

### Analysis

Carbon	0.38-0.48%	Silicon	0.35% max
Manganese	0.60-0.90%	Phosphorous	0.025% max
Chromium	0.90-1.20%	Sulphur	0.035% max
Molybdenum	0.15-0.30%		

## Forging

Pre heat the steel carefully, then raise temperature to 850°-1200°C for forging. Do not forge below 850°C. After forging it is recommended to cool slowly in still air.

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## Annealing

Heat the 42CrMo4 slowly to 680°-700°C. Cool in air.

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## Hardening

This steel grade is commonly supplied in a ready heat treated condition. If further heat treatment is required annealed 42CrMo4 should be heated slowly and uniformly to 860°-890°C and after adequate soaking at this temperature quench in oil. Temper as soon as the steel reaches room temperature.

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## 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 EN19T alloy steel.

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## Certification

42CrMo4 alloy steel is available with BS EN 10204 3.1 mill certificate, please request when placing any orders.

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## Quality Assured Supply

42CrMo4 is supplied in accordance with our ISO 9001:2015 registration.