

## 1.2550 Tool Steel

**1.2550 tool steel suppliers and stockholders delivering to the whole of the UK.** West Yorkshire Steel are stockholders and suppliers of grade 1.2550 in round bar. As a shock resisting steel it is suited for both hot and cold work applications. The tungsten content of this steel grade confers fatigue resistance, the chromium content provides depth of hardness and resistance to abrasion. It is suitable for cold work tools subject to heavy shock. 1.2550 is also used with great success for chisels and punches required for heavy work on hard and tough materials. Suitable for hot work applications where high fatigue strength with medium hot hardness is desirable. Tools made from this grade can be water cooled in service with minimal risk of cracking.

We welcome export enquiries for 60WCrV8 steel. Contact our sales office and consult our [shipping policy](#) for further details.

### Form of Supply

West Yorkshire Steel are suppliers and stockholders of 1.2550 tool steel in round bar. Diameters can be sawn to required lengths as one offs or multiple cuts. 1.2550 ground tool steel bar can be supplied, providing a precision ground bar to your required tolerances.

Contact our experienced sales team who will assist you with your tool steel enquiry.

- Diameter

### Applications

Typical applications include mandrel bars for drawing steel tubes, swaging, also punching, piercing, trimming dies and shear blades, forming and gripper dies.

### Analysis

Carbon	0.55-0.65%	Chromium	0.90-1.20%
Manganese	0.15-0.45%	Silicon	0.70-1.00%
Tungsten	1.70-2.20%	Phosphorous	0.03% max
Vanadium	0.10-0.20%	Sulphur	0.03% max

## Forging

Heat the steel carefully to a temperature of 1000-1050°C and forge with light rapid blows. Reheat when temperature falls below 900°C if further work remains to be done. After forging, cool slowly, ideally in a furnace.

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## Annealing

Heat the component slowly and uniformly to 800-810°C. Soak thoroughly for two to three hours and cool slowly in the furnace.

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## Stress Relieving

If the machining operations have been severe, we recommend stabilising just before the tool components are finish machined to relieve machining strains. Heat slowly to a temperature of 700°C, allow to cool in air.

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## Hardening

Preheat at 650°C followed by rapid increase of temperature to 900-950°C. Quench in oil. Tempering of this grade is always recommended after hardening.

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## Tempering

Heat slowly to the required tempering temperature, soak thoroughly for two hours per 25mm section and allow to cool in air. For hot work applications, a minimum tempering temperature of 550°C should be used.

<b>Temperature [°C]</b>	150	200	250	350	400
<b>Hardness [HRc]</b>	58-56	56-54	55-53	53-51	52-49

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## Heat Treatment

Heat treatment temperatures, such as rate of heating, cooling and soaking times will vary due to factors including the size and shape of each component. Other considerations during the hardening process include the type of furnace, quench medium and work piece transfer facilities. Please consult your heat treatment provider for full guidance on heat treatment of 1.2550 tool steel.

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## Quality Assured Supply

1.2550 tool steel is supplied in accordance with our ISO 9001:2008 registration.