

BS4659 BD2A Tool Steel

BS4659 BD2A tool steel stockholders and suppliers, delivering to the whole of the UK. West Yorkshire Steel are suppliers of BD2A tool steel grade in flat bar, round bar, plate and sheet. BD2A is similar to [BD2](#) but with slight variations in the composition. As a high carbon high chromium tool steel grade BD2A offers wear resistance and toughness when through hardened.

We welcome export enquiries for BS 4659 BD2A tool steel. Please contact our sales office and consult our [shipping policy](#) for further details.

Related Specifications

ASTM A681 DIN 17350 BS EN ISO 4957

Alternative BS4659 tool steel grades we supply

[BO1](#) | [BD2](#) | [BD3](#) | [BO2](#) | [BA2](#) | [BS1](#) | [BH13](#) | [BP20](#) | [BP30](#) | [BM2](#) | [BM35](#) | [BM42](#)

Form of Supply

BD2A is available in round bar, flat bar, sheet and plate. Blanks can be supplied cut to your requirements as one offs or multiple cut pieces.

Contact our experienced sales team who will assist you with your BS 4659 BD2 tool steel enquiry.

- Sheet
- Plate
- Flat
- Diameter

Ground Flat Stock

Precision ground flat stock / gauge plate can be produced in BD2A tool steel. Subject to size and availability pieces can be produced in approximately 2 to 3 weeks. Standard and non-standard sizes can be manufactured.

Typical Analysis

Carbon	1.60-1.90%	Chromium	12.00-13.00%
Molybdenum	0.70-0.90%	Silicon	0.60% max
Vanadium	0.25-1.00%	Manganese	0.60% max

Forging

Heat slowly and uniformly to 700°C then more rapidly to 900-1040°C. After forging the tool steel cool down slowly.

Annealing

As BD2A is supplied in the annealed and machineable condition re-annealing will only be necessary if the steel has been forged or hardened. Heat slowly and uniformly to 900°C then soak for three to four hours and allow to cool in the furnace to room temperature. It is recommended to repeat the process.

Stress Relieving

Tools made from BD2A that have been heavily machined, ground or otherwise subjected to cold work should be stress relieved before hardening. Heat the steel to 600-650°C and soak well. Cool in the furnace or in air.

Hardening

Heat the BD2A tool steel component to 750-800°C. and allow to soak at this temperature. The tools may then be brought up to 980-1030°C. Soak thoroughly for thirty minutes per 25mm of ruling section, then cool or quench accordingly.

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 BD2A 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 tool steels.

Tempering

Temper the BD2A component with the least possible delay after hardening, preferably when the steel is still hand warm. Select a suitable tempering temperature between 150-220°C or 450-550°C. Use the lower tempering range is when maximum hardness is required and the higher tempering range should when maximum toughness is required. When the steel has reached the required temperature, soak for at least one hour per 25mm of section. Double tempering is recommended.

Quality Assured Supply

BS4659 BD2 tool steel is supplied in accordance with our ISO 9001:2015 registration.