

535A99 Through Hardening Steel

535A99 steel suppliers, delivering throughout the UK. 535A99 is a high carbon alloy steel which can give a high degree of hardness with compressive strength and abrasion resistance. West Yorkshire Steel are stockholders and suppliers of 535A99 steel through hardening steel in round bar.

We welcome export enquiries for 535A99. Please contact our sales office and consult our [shipping policy](#) for further details.

Related Specifications

100Cr6, 2258, 100C6, 100Cr6, SAE AISI E52100

Alternative grades we supply

[605M36T](#) | [709M40T](#) | [708M40T](#) | [817M40T](#) | [826M40W](#) | [835M30](#) | [655M13](#) | [722M24](#) | [905M39](#) | [1.2510](#)

Form of Supply

535A99 is available in round bar. Diameters can be sawn to your required lengths as one offs or multiple cut pieces. 535A99 ground steel bar can be supplied, providing a quality precision ground bar to your required tolerances.

Contact our experienced sales team who will assist you with your 535A99 steel enquiry.

- Diameter

Applications

Applications for 535A99 steel include ejector pins, ball and roller bearings, gauges, taps and swaging dies. It is a good quality steel for wear resisting machine parts and for press tools which do not merit a more complex quality steel grade.

Analysis

Carbon	0.95-1.10%	Manganese	0.40-0.70%
Chromium	1.20-1.60%	Sulphur	0.040% max
Silicon	0.10-0.35%	Phosphorous	0.035% max

Forging

Heat the steel slowly and begin forging at 1000-1050°C. Allow sufficient time at the forging temperature for the component to be thoroughly soaked through. Re heat the component as necessary and do not forge below 850°C. After forging 535A99 furnace cool slowly.

Annealing

535A99 is commonly supplied in the annealed machineable condition. Re-annealing will only be necessary if the steel has been forged or hardened. To anneal, heat the 535A99 steel slowly to 800-810°C, soak well and allow furnace cool in the.

Stress Relieving

When parts are to be heavily machined, stress relieving will be beneficial prior to hardening. Heat the steel carefully to 700°C, soak well and allow to air cool.

Hardening

Heat slowly to the hardening temperature of 800-820°C. Maintain until thoroughly soaked through. Plenty of time must be given for this soaking, then oil quench.

Tempering

Temper according to the purpose for which the tools are required, generally between 150°C and 300°C. Soak well at the selected temperature and soak for at least one hour per 25mm of total thickness. Air cool slowly.

Temperature [°C]	150	200	250	300
Hardness [HRc]	63-62	62-61	60-59	57-56

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 535A99 component. Other considerations during the heat treatment process including the type of furnace, quenching medium and work piece transfer facilities. Please consult your heat treatment provider for full guidance on heat treatment of 535A99 steel.

Quality Assured Supply

535A99 is available with 3.1 mill certificate or cast and analysis certification and supplied in accordance with our ISO 9001:2015 registration.