



EN43

EN43 plate, round and flat bar

EN43 steel stockholders and suppliers, delivering throughout the UK.

EN43 is a carbon spring steel supplied as bar in the as rolled condition or as flame cut and normalised plate. It is suitable for oil hardening and tempering. When used in the oil hardened and tempered condition EN43 spring steel offers good wear resistance. EN43 can be flame or induction hardened to produce a high surface hardness with excellent wear resistance.

Related Specifications

BS970 C50 C55 1.0535 1.0540 1.0601 AISI 1050
AISI 1060 080A57 080A52 080A62 080M50
1.1213 1.1221 XC55 DIN 17200 DIN 17222 DIN
1652 EN43A, EN43B, EN43C, EN43D, EN43E,
EN43G, EN43J

Spring steel grades we supply

[CS70](#) | [CS95](#) | [CS95](#) | [CS100](#)
[EN42](#) | [EN43](#) | [EN47](#) | [301](#) | [75Cr1](#)

Form of Supply

West Yorkshire Steel are suppliers of round, square, hexagon and flat bar. EN43 bar can be sawn to your required length. Flame cut profiles can be supplied in grade EN43, which can be surface ground if required. EN43 ground steel bar can be supplied, providing a precision ground spring steel bar to close tolerances. Also available are EN43A, EN43B, EN43C, EN43D, which have a variation in carbon content to standard grade EN43.



- Flat
- Diameter
- Plate

Contact our experienced sales team who will assist you with your EN43 enquiry.

Applications

EN43 is used commonly for many general engineering applications. Typical applications include springs, shafts, bushes, crankshafts, screws, sickles, axes, knives, wood working drills and hammers.

Analysis

Carbon	0.45-0.60%	Silicon	0.10-0.40%
Manganese	0.60-0.80%	Sulphur	0.05% max
Phosphorous	0.05% max		

Flame Cut Profiles

West Yorkshire Steel are suppliers of EN43 flame cut steel profiles. A hard edge can occur when flame cutting EN43 plates therefore this grade is commonly normalised after cutting. EN43 flame cut profiles can be supplied Lumsden ground or precision ground.

Ground Flat Stock

Precision ground flat stock / gauge plate can be produced using EN43 steel. Subject to size suitability and availability of raw material pieces can be produced in approximately 2 to 3 weeks. Standard and non-standard sizes are available

Forging

Preheat the component carefully, then raise the temperature to 1100°C for forging. Do not forge below 850°C. After forging cool slowly, ideally in a furnace.

Annealing

Heat the steel slowly to 680-710°C, soak well. Cool slowly in a furnace.

Hardening

Heat the EN43 slowly to 800-840°C and allow the component to be heated through. Quench in oil or water.

Tempering

Temper the EN43 steel component immediately after quenching whilst still hand warm. Re-heat to the tempering temperature then soak for one hour per 25 millimetre of total thickness (2 hours minimum) Cool in air. For most applications tempering of EN43 will be between 550-660°C.

Welding

We recommend you contact your welding consumables supplier who should provide you full assistance and information on welding EN43 steel

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 EN43 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 EN43 steel.

Certification

EN43 as rolled spring steel is available with a cast and analysis certificate or certificate of conformity, please request when placing any orders.

Quality Assured Supply

EN43 spring steel is supplied in accordance with our ISO 9001:2015 registration.



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