

## EN43 Spring Steel

---

**EN43 spring steel stockholders and suppliers, delivering to the whole of the UK.** This grade 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.

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

### 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

### Alternative spring steel grades we supply

[CS70](#) | [CS80](#) | [CS95](#) | [CS100](#) | [EN42](#) | [EN45](#) | [EN47](#) | [735A50](#) | [6150](#) | [301](#)

---

## 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, EN43E, EN43G and EN43J which have a variation in carbon content to standard grade EN43.

- Plate
  - Flat
  - Diameter
  - Hexagonal
- 

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

---

## Forging

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

---

## Annealing

Heat the steel slowly to 680-710°C, soak well. Cool slowly in the 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 spring steel component immediately after quenching whilst tools are still hand warm. Re-heat to the tempering temperature then soak for one hour per 25 millimetre of total thickness (2 hours minimum) Cool the steel in air. For most applications tempering will be between 550-660°C.

---

## Heat Treatment

Heat treatment temperatures, including rate of heating, cooling and soaking times etc. 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 spring steels.

---

## Welding

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

---

## Certification

Spring steel EN43 grade is available with cast and analysis certification, please request when placing any orders.

---

## Quality Assured Supply

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