Contact: **01937 584440**
sales@westyorkssteel.com

Cast Iron Bar

Cast iron is available in 3 metre bar lengths or can be cut to your requirements

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Cast Iron stockholders and suppliers, delivering to the whole of the UK. As Cast Iron bar it is supplied conforming to designations BS1452 BS EN 1561 and BS EN 2789. West Yorkshire Steel are suppliers of continuous cast iron round bar and flat bar. Continuously cast iron bar provides consistent mechanical properties with good machineability to produce a good surface finish. Grey iron cast bar has a microstructure that consists of graphite nodules in a solid metal matrix, similar to that of carbon steel. With its dense homogeneous structure cast iron bar provides good mechanical properties such as strength and wear resistance. The graphite structure gives it higher noise and vibration damping capacity than that of a carbon steel. Also known as grey iron or ductile iron, cast iron weighs approximately 10% less than that of steel. spheroidal graphite irons are also produced as continuous cast bar offer good strength and ductility.

We welcome export enquiries for cast iron bar. Contact our sales office and consult our shipping policy for further details.

Popular grades we supply

Meehanite | 200 | 220 | 250 | 260 | 300 | 350 | Spheroidal Graphite Iron | 400-15 | 420-12 | 500-7 | 600-3 | 700-2

EN GJL 200 | EN GJL 250 | EN GJL 300 | EN GJL 350 | EN GJS 400-15 | EN GJS 500-7 | EN GJS 600-3

Form of Supply

West Yorkshire Steel are suppliers of round, flat, cut block and plate. Cast iron is available in 3 metre bar lengths or bars and can be cut to your specific requirements.

Click here to contact our experienced sales team who will assist you with your cast iron bar enquiry.

- Flat
- Diameter

Applications

Cast Iron bar is used widely in a wide range of sectors such as the glass, automotive, machine tools and oil and gas industries. Typical applications include pistons, valve bodies, moulds, dies, cams, gears and pulleys.

Cast Iron Grades

BS1452 Grade 200	BS1452 Grade 220	BS 1452 Grade 250	BS1452 Grade 260	BS1452 Grade 300	BS1452 Grade 350	Meehanite
Spheroidal Graphite Iron	BS2789 Grade 400-15	BS2789 Grade 420-12	BS2789 Grade 500-7	BS2789 Grade 600-3	BS2789 Grade 700-2	

Types of Cast Iron

Cast Irons remain the most used casting alloy despite a large reduction in production over the years. Their popularity stems from relatively low cost production costs and the wide range of properties that can be achieved by careful control over composition and cooling rate without radical changes in production methods. For engineering applications cast irons are available in two common types, grey flake irons and spheroidal graphite irons.

Grey Iron

Grey flake irons are the most used of the general engineering irons. The name derives from the characteristic grey colour of the fracture surface and the graphite morphology. They are readily machineable and are resistant to sliding wear. They have high thermal conductivity, low modulus of elasticity and an ability to withstand thermal which makes them suitable for applications subjected to local or repeated thermal stressing. The properties of grey flake irons depend on the size, amount and distribution of the graphite flakes and the matrix structure. Grey Iron is produced under austere metallurgical conditions. It is processed according to section thickness to give a dense homogeneous structure, which enables consistent mechanical properties and a good surface finish on machining. There are small graphite flakes in continuous cast iron bar which acts as chip breakers to cutting tools. Grey Iron has a much greater damping capacity than that of steel, so it will absorb vibrational stresses that much more easily.

Spheroidal Graphite Iron

Also known as ductile, nodular and spherulitic its introduction is usually credited to the presentations made at the American Foundryman's Congress in Philadelphia USA in 1948 with rapid increased production in the later part the the 20th century. Spheroidal graphite irons are inferior to grey irons in respect to physical properties such as thermal conductivity but exhibit better mechanical properties. The make suitable alternatives to steel and grey irons. Spheroidal graphite iron production aims for fine and uniform distribution of perfectly shaped spheroids which helps achieve good mechanical properties. The strength and ductility of SG irons are comparable to that of low carbon mild steels and low alloy steels. As with grey irons the small graphite nodules act as chip breakers, allowing fact machining rates. The wear resistance, self-lubricating and oil retaining properties of SG irons are also excellent.

Comparison of Grey Iron Grades

Great Britain BS EN 1561	U.S.A AISI/SAE/ASTM	Germany W-Nr / Din 1651	Italy UNI	Japan JIS	Spain UNE	Sweden SIS
EN GJL Grade 200	A48 class 30	0.6020 GG20	G20	FC200	FG20	120
EN GJLGrade 220	A48 class 35	-	-	-	-	-
EN GJL Grade 250	A48 class 40	0.6025 GG25	G25	FC250	FG25	125
EN GJL Grade 300	A48 class 45	0.6030 GG30	G30	FC300	FG30	130
EN GJL Grade 350	A48 class 55	0.6035 GG35	G35	FC350	FG35	135

Comparison of Spheroidal Graphite Iron Grades

Great Britain BS EN 2789	U.S.A AISI/SAE	Germany W-Nr Din	Italy UNI	Japan JIS	Spain UNE	Sweden SIS
EN GJS 420-12	A536 60-40-18	0.7040 GG40	GS 400-12	FCD 400	GGG40	0717-02
EN GJS 400-15	-	-	-	-	-	-
EN GJS 500-7	A536 80-55-06	0.7050 GG50	GS 500-7	FCD500	GGG50	0727-02
EN GJS 600-3	-	0.7060 GG60	GS 600-3	FCD 600	GGG60	0732-03
EN GJS 700-2	A536 100-70-03	0.7070 GG70	GS 700-2	FCD 700	GGG70	0737-01

Cast Iron Castings

Cast Iron and Spheroidal Graphite Iron grades are also available produced as castings. Castings can sometimes be offered as an alternative option when no suitable size or grade is available in continuous cast bar.

Certification

Cast iron and spheroidal graphite iron is commonly supplied with a certificate of conformity, if required please request when placing any order. Full chemical and mechanical certificates can be offered at extra costs, if this is a requirement please make this known to our sales team at the time of placing your enquiry.

Quality Assured Supply

Our grades of cast Iron bar are supplied in accordance with our ISO 9001:2015 registration.