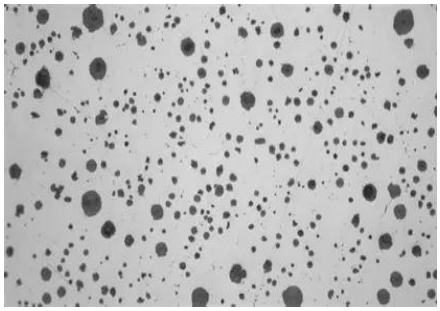
SG Iron

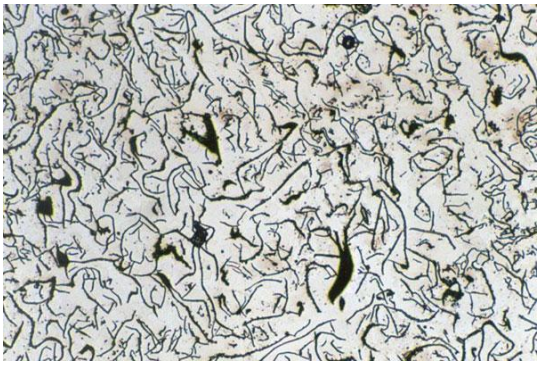


SG Iron Castings are manufactured in accordance with the European Standard EN1563

Mechanical Properties

Grade	Tensile Strength N/mm² min.	0.2% proof stress N/mm² min.	Elongation % min.
EN-GJS-400-18	400	250	18
EN-GJS-400-15	400	250	15
EN-GJS-450-10	450	310	10
EN-GJS-500-7	500	320	7
EN-GJS-600-3	600	370	3
EN-GJS-700-2	700	420	2
EN-GJS-800-2	800	480	2
EN-GJS-900-2	900	600	2

Grey Cast Iron



Grey Iron castings are manufactured in accordance with the European Standard EN 1561

Grade	Tensile Strength (N/mm min.)
EN-GJL-150	150
EN-GJL-200	200
EN-GJL-250	250
EN-GJL-300	300

Wear Resistant Irons

Wear Resistant Iron castings are manufactured in accordance with the European Standard EN 12513

Wear-resistant cast iron, also known as abrasion-resistant cast iron, are specially formulated to endure harsh conditions involving friction and wear. It typically contains high levels of carbon and alloying elements such as chromium, nickel, and molybdenum, which enhance its hardness and toughness. This type of cast iron is engineered to provide superior durability and extended service life in applications where mechanical stresses and abrasive materials are common.

Below are regular grades produced by the foundry. Other wear resistant grades are also available.

Grade	C%	Si%	Mn%	Ni%	Cr%	Mo% max.	P% max.	S% max.
2B	3.2 – 3.6	0.3 – 0.8	0.2 – 0.8	3.0 – 5.5	1.5 – 2.5	0.5	0.3	0.15
3E	2.8 – 3.2	1.0 max.	0.5 – 1.5	1.0 max.	22.0 – 28.0	1.5 max.	0.1	0.06

High Silicon - Molybdenum Irons

The main applications for SiMo are in automotive exhaust and turbocharger systems, but it is suitable for any high temperature application where both strength and ductility are required.

Chemical Analysis and Mechanical Analysis

Grade	C%	Si%	Mn%	S%	Mo%	Mg% max.	Tensile Strength N/mm^2	0.2% Proof Stress N/mm^2	Elongation%
0.5 to 0.7 SiMo	3.0 – 3.4	3.8 – 4.2	0.4 max.	0.15 max.	0.5 – 0.7	0.03 – 0.08	450	310	8
0.7 to 1.25 SiMo	3.2 – 3.8	4.0 – 5.0	0.4 max.	0.15 max.	0.7 – 1.25	0.03 – 0.09	550	480	5

Austempered Ductile Iron (ADI)

ADI grades have been developed to provide lightweight properties that are cheaper than mild steel grades offering improved mechanical properties whilst retaining wear resistance. The combination of strength and resistance to abrasion whilst retaining ductility make it ideal for high performance applications.

BS EN 1564 Austempered Ductile Iron (ADI)

Grade	Tensile Strength N/mm^2	0.2% Proof Stress N/mm^2	Elongation %	Brinell Hardness HB
EN-GJS 800-8	800	500	8	260 to 320
EN GJS-1000-5	1000	700	5	300 to 360
EN GJS 1200-2	1200	850	2	340 to 440
EN GJS-1400-1	1400	1100	1	380 to 480

ASTM 897M Austempered Ductile Iron (ADI)

Grade	Tensile Strength N/mm^2	0.2% Proof Stress N/mm^2	Elongation %	Brinell Hardness HB
1	900	650	9	269 to 341
2	1050	750	7	302 to 375
3	1200	850	4	341 to 444
4	1400	1100	2	388 to 477
5	1600	1300	1	402 to 512