

Materials

Specifications of Alloy Produced by Cerdic Foundries Ltd

Ductile Iron to BS EN 1563:1997

EN 1563:1997	BS2789:1985	Tensile Strength	.2% Proof Strength	Elongation	
	<i>Equivalent</i>	<i>N/mm sq</i>	<i>N/mm sq</i>	<i>%</i>	
EN-GJS-350-22LT	350/22L40	350	220	22	Heat Treated high impact at low temperature
EN-GJS-350-22	350/22	350	220	22	High impact resistance Ferritic Matrix
EN-GJS-400-18LT	400/18L20	400	240	18	Heat Treated high impact at low temperature
EN-GJS-400-18	400/18	400	250	18	High impact resistance Ferritic Matrix
EN-GJS-400-15	420/12	400	250	15	Moderate Strength and substantial ductility
EN-GJS-450-10	450/10	450	310	10	Moderate Strength and substantial ductility
EN-GJS-500-7	500/7	500	320	7F	Ferrite/Pearlite intermediate strength and ductility
EN-GJS-600-3	600/3	600	370	3H	High strength Can be surface hardened
EN-GJS-700-2	700/2	700	420	2H	High strength Can be surface hardened
EN-GJS-800-2	800/2	800	480	2H	High strength Can be surface hardened

Grey Flake Cast Irons to BS EN 1561:1997

EN 1561:1997	BS1452:1990	Tensile Strength	Tensile Strength		
	<i>Equivalent</i>	<i>N/mm sq</i>	Tonnes/sq in		
EN-GJL-150	150/180	150	10		General casting applications
EN-GJL-200	200/220	200/220	14		General casting applications
EN-GJL-250	250	250	17		General Engineering Grade Pressure Tight Castings
EN-GJL-300	300	300	20		General Engineering Grade Higher Strength
EN-GJL-350	350	350	23		General Engineering High Strength

Austenitic & Ni Resist CI to BS EN 13835:2002

BS EN 13835-2002	BS 3468:1986	Tensile Strength	.2% Proof Strength	Elongation	
	Equivalent	N/mm sq	N/mm sq	%	
EN-GJLA-XNiCuCr15-6-2F	1	170/240		1-2	Grey Flake Cast Iron

EN-GJLA-XNiCuCr15-6-2F	2	170/240		1-3	Grey Flake Cast Iron
EN-GJLA-XNiCuCr15-6-2F	3	190/240		1-3	Grey Flake Cast Iron
EN-GJLA-XNi22	S2	370/450	170-250	7S	Spheroidal Graphite Iron (Ni Resist D-2C)
EN-GJLA-XNiCr30-3S	3	370-480	210-260	7S	Spheroidal Graphite Iron (Ni Resist D-3)
EN-GJLA-XNiSiCr35-5-2S	5S	370-450	210-270	7S	Spheroidal Graphite Iron (Ni Resist D-5S)

Abrasion Resisting White Cast Irons to BS EN 12513:2000

BS EN 13835-2002	BS4844 1986	Vickers Hardness	Tensile Strength		
	<i>Equivalent</i>		<i>N/mm sq</i>		
EN-GJN-HV350	Grade 1A	350	Typically 250N/mm sq		Matrix Structures and Hardness of all Grades is dependant upon heat Treatment where applicable
EN-GJN-HV520	Grade 2A	520	Typically 250N/mm sq		“
EN-GJN-HV550	Grade 2B	550	Typically 250N/mm sq		“

EN-GJN-HV600	Grades 2C-D-E	600	Typically 250N/ mm sq		“
EN-GJN-HV600 (XCr11)	Grade 3A	600	Typically 250N/ mm sq		“
EN-GJN-HV600 (XCr14)	Grade 3B	600	Typically 250N/ mm sq		“
EN-GJN-HV600 (XCr18)	Grade 3C	600	Typically 250N/ mm sq		“
EN-GJN-HV600 (XCr23)	Grade 3E	600	Typically 250N/ mm sq		28% Cr Grade Heat Treated

Austempered SG Iron to BS ISO 17804:2005 ADI

BS17804:2005	EN 1564 1997	Tensile Strength	Elongation	Hardness	
	<i>Equivalent</i>	<i>N/mm sq</i>	<i>%B</i>	<i>HN</i>	
JS/800-10	EN-GJS-800-8	800	10	250-310	Grade 1
JS/900-8N	One	900	8	280-340	Grade 2
JS/1050-6E	N-GJS-1000-5	1050	6	320-380	Grade 3
JS/1200-3E	N-GJS-1200-2	1200	3	340-420	Grade 4
JS/1400-1E	N-GJS-1400-1	1400	1	380-480	Grade 5

JS/HBW450	None	1600	1	444-555	Grade 6 to ASTM A897/A897M
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Compacted Graphite Cast Irons to ISO16112:2006

ISO 16112T	Tensile Strength	Proof Stress	Elongation		Typical applications
	<i>N/mm sq</i>	<i>N/mm sq</i>	<i>%</i>		
ISO 16112/JV/300/S	300	210	2H		High Thermal Conductivity. Cylinder Heads/ Manifolds
ISO 16112/JV/350/S	350	245	1.5B		Ended plates/Cylinder blocks for Diesel Engines
ISO 16112/JV/400/S	400	280	1C		Cylinder Blocks Pump Housings Brake Drums
ISO 16112/JV/450/S	450	315	1T		Train Brake Discs/Pump Housings Hydraulic Castings
ISO 16112/JV/500/S	500	350	0.5C		Cylinder Liners/High Stressed Cylinder Blocks

Aluminium alloys	Copper based alloys
LM4	HTB1
LM6	HTB3
LM25	Lg4
A169	SCB1
A356	PB1
	Nickle Aluminium Bronze
	AB2