

Low-alloyed Ferritic Spheroidal Graphite Cast Irons for Elevated Temperature Applications

Technical Data

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Low-alloyed Ferritic Spheroidal Graphite Cast Irons for Elevated Temperature Applications (BS EN 16124:2011)		Relevant wall thickness mm	0.2% Proof Strength	Tensile Strength	Elongation	Typical Brinell Hardness range	
Material designation	Symbol		Number	R _{p0.2} MPa min.	R _m MPa min.	A % min.	HB
EN-GJS-SiMo25-5		5.3111	30 < t ≤ 60 60 < t ≤ 200	260 250	420 400	12 12	140 to 210 130 to 200
EN-GJS-SiMo30-7		5.3112	30 < t ≤ 60 60 < t ≤ 200	310 300	440 420	10 10	150 to 220 140 to 210
EN-GJS-SiMo35-5		5.3113	30 < t ≤ 60 60 < t ≤ 200	330 320	440 440	8 8	160 to 230 150 to 220
EN-GJS-SiMo40-6		5.3114	---	380	480	8	190 to 240
EN-GJS-SiMo40-10		5.3115	---	400	510	6	190 to 240
EN-GJS-SiMo45-6		5.3116	---	420	520	7	200 to 250
EN-GJS-SiMo45-10		5.3117	---	460	550	5	200 to 250
EN-GJS-SiMo50-6		5.3118	---	480	580	4	210 to 260
EN-GJS-SiMo50-10		5.3119	---	500	600	3	210 to 260

Characteristic	Symbol	Unit	Typical Values
Density	ρ	g/cm ³	6.8 to 7.1
Linear thermal expansion coefficient from 20°C to 200°C	α	μm/(m.K)	11 to 13
Thermal conductivity at 100°C Thermal conductivity at 400°C	λ	W/(m.K)	22 to 26 25 to 30
Heat capacity at 20°C to 100°C	c	J/kg.K	500 to 720
Modulus of elasticity at 20°C	E	GPa	160 to 180
Poisson's ratio	ν		0.28 to 0.35