

Ductile Iron GJS-500C

EN-GJS-500C / EN-GJS-500-7 / EN-JS1050

MATERIAL DATA SHEET

Parkside Steel

(Stockholders) Ltd

ISO 9001 | BSI FS 86692

Est. 1977 | Co. 01325509

01623 687 660

OVERVIEW

Ferritic-pearlitic spheroidal-graphite (ductile / SG) cast iron bar, continuously cast for a dense, close-grained section. EN-GJS-500C balances strength and ductility — higher tensile and proof strength than GJS-400 while retaining useful elongation. The general-purpose ductile grade for loaded machined components.

TYPICAL APPLICATIONS

- Gears, sprockets and pinions
- Crankshafts and camshafts
- Hydraulic components and cylinders
- Pump and compressor bodies
- Rollers, sheaves and pulleys
- Machine tool and press components

SUPPLY & PROCESSING

Supply: Round bar 25-400mm diameter.
Condition: As continuously cast.
Weldability: Limited. Ni electrodes and pre-heat if essential.
Machinability: Good. Nodular graphite breaks the chip. 50-90 m/min.
Certification: 2.2 Test Report standard. 3.1 on request.

GRADE EQUIVALENTS

Standard	Designation
BS EN 1563:2018	EN-GJS-500-7 / EN-JS1050
BS 2789:1985 (withdrawn)	500/7 (SNG 500/7)
ASTM A536	70-50-05
DIN (former)	GGG-50 / 0.7050
JIS	FCD500

CHEMICAL COMPOSITION (% by weight)

Element	Typical Range (%)	Notes
Carbon (total)	3.40–3.80	Spheroidal graphite nodules
Silicon (Si)	2.10–2.80	Ferritic-pearlitic matrix
Manganese (Mn)	0.20–0.50	Promotes pearlite
Phosphorus (P)	0.05 max	
Magnesium (Mg)	0.03–0.06	Nodularising agent (residual)

MECHANICAL PROPERTIES

Designation	Tensile Strength (N/mm ²)	0.2% Proof Stress (N/mm ²)	Elongation A (%)	Hardness (HB)
EN-GJS-500C EN-JS1050	>500	>320	>7	170–230

Indicative values per BS EN 1563. Properties vary by section size and matrix condition. Confirm with Parkside Steel.

TO ORDER / GET A QUOTE Call: 01623 687 660 Email: sales@parksidesteel.uk.com Online: parksidesteel.co.uk/quote No minimum order. Same-day collection available.

PARKSIDE STEEL (STOCKHOLDERS) LTD Byron House, 4 Willow Drive Sherwood Park, Annesley Nottinghamshire NG15 0DP ISO 9001 | BSI FS 86692 | Est. 1977