

Grey Cast Iron GJL-250

EN-GJL-250 BS 1452 Grade 250

MATERIAL DATA SHEET

Parkside Steel

(Stockholders) Ltd

ISO 9001 | BSI FS 86692

Est. 1977 | Co. 01325509

01623 687 660

OVERVIEW

Grey cast iron provides excellent machinability, high damping capacity, good compressive strength and low cost. Graphite flakes give characteristic grey fracture and provide self-lubrication during machining. Used where vibration damping, compressive loading and complex form machining are requirements.

TYPICAL APPLICATIONS

- Machine tool beds and slideways
- Bearing housings and pedestals
- Engine blocks and cylinder heads
- Brake discs and drums
- Hydraulic valve bodies
- Pump housings

SUPPLY & PROCESSING

Supply: Round bar 25-400mm diameter.
Condition: As-cast.
Weldability: Not recommended. Specialist process if essential.
Machinability: Excellent. Graphite acts as chip-breaker. 80-120 m/min. Dry machining preferred.
Certification: 2.2 Test Report standard.

GRADE EQUIVALENTS

Standard	Designation
BS EN 1561:2011	EN-GJL-250 / EN-JL1040
BS 1452:1990 (withdrawn)	Grade 250
ASTM	A48 Class 40
DIN	GG-25 / 0.6025
JIS	FC250

CHEMICAL COMPOSITION (% by weight)

Element	Typical Range (%)	Notes
Carbon (total)	3.00–3.50	Exists as graphite flakes
Silicon (Si)	1.70–2.50	Controls graphitisation
Manganese (Mn)	0.50–0.90	
Phosphorus (P)	0.10–0.30	
Sulphur (S)	0.05–0.15	

MECHANICAL PROPERTIES

Designation	Tensile Strength (N/mm ²)	Compressive Strength (N/mm ²)	Hardness (HB)	Machinability
EN-GJL-250 / BS Gr.250	~250 (min)	~900	170–260	Excellent

Indicative values. Properties vary by section size and heat treatment 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.

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