

S355 J2

S355J2 1.0577 EN 10025-2

MATERIAL DATA SHEET

Parkside Steel

(Stockholders) Ltd

ISO 9001 | BSI FS 86692

Est. 1977 | Co. 01325509

01623 687 660

OVERVIEW

S355 J2 is a structural steel with minimum yield strength 355 N/mm², good weldability and Charpy impact testing at -20°C. The most commonly specified structural steel in UK engineering combining high yield strength with reliable weldability and toughness.

TYPICAL APPLICATIONS

- Structural frames and supports
- Load-bearing weldments
- Fabricated machine bases
- Agricultural machinery frames
- Lifting equipment and cranes
- Heavy structural fabrications

SUPPLY & PROCESSING

Supply: Round bar, flat bar, square bar.
Condition: Hot-rolled (black) condition.
Weldability: Good. No preheat on standard sections. Use matching strength consumables.
Machinability: Good. Standard structural steel machining practices.
Certification: 2.2 Test Report standard. 3.1 on request.

GRADE EQUIVALENTS

Standard	Designation
BS EN 10025-2:2019	S355J2 / 1.0577
Sub-grade	J2 — Charpy impact tested at -20°C
ASTM approx	A572 Grade 50
DIN	S355J2 / 1.0577
Former BS	50D (approx.)

CHEMICAL COMPOSITION (% by weight)

Designation	C max	Si max	Mn max	P max	S max	N max
S355J2 (t≤16mm)	0.20	0.55	1.60	0.025	0.025	0.012
S355J2 (t>16–40mm)	0.20	0.55	1.60	0.025	0.025	0.012

MECHANICAL PROPERTIES

Size (mm)	Yield Re (N/mm ²) min	Tensile Rm (N/mm ²)	A% min	Impact (J at -20°C)
≤16 / >16–40 / >40–63 / >63–80	≥355 / ≥345 / ≥335 / ≥325	490–630 / 490–630 / 470–630 / 470–630	22 / 21 / 20 / 20	≥27

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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