

EN3B / 070M20

C22E 1.1151 AISI 1020

MATERIAL DATA SHEET

Parkside Steel

(Stockholders) Ltd

ISO 9001 | BSI FS 86692

Est. 1977 | Co. 01325509

01623 687 660

OVERVIEW

EN3B is a low carbon mild steel offering excellent weldability, good machinability and adequate strength for general engineering. It welds freely using MIG TIG and MMA without preheat on sections to 25mm. The standard general-purpose bright bar grade.

TYPICAL APPLICATIONS

- Weldable fabricated components
- Brackets and frames
- Light-duty shafts
- General turned parts
- Prototype and development work
- Low-stress structural components

SUPPLY & PROCESSING

Supply: Bright round bar 3-310mm. Hexagon bar 5-75mm A/F. Square and flat bar.
Condition: Cold drawn bright bar.
Weldability: Excellent. No preheat required on standard sections.
Machinability: Very good. 90-130 m/min carbide.
Certification: 2.2 Test Report standard.

GRADE EQUIVALENTS

Standard	Designation
BS EN 10277:2018	C22E / 1.1151
BS 970:1991 (withdrawn)	070M20
AISI/SAE	1020 / 1023
DIN	C22 / 1.0402
ISO	C22E

CHEMICAL COMPOSITION (% by weight)

Designation	C	Si	Mn	P max	S max
070M20	0.16–0.24	0.10–0.40	0.50–0.90	0.05	0.05
C22E	0.17–0.23	0.17–0.37	0.40–0.70	0.035	0.035

MECHANICAL PROPERTIES

Condition	Size (mm)	Tensile Rm (N/mm ²)	Yield Re (N/mm ²)	A% min
CD (Bright)	≤16 / >16–40 / >40–100	430–590 / 410–560 / 390–540	~240 / ~215 / ~195	20 / 21 / 22

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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