

EN9 / 070M55

C55E 1.1203

MATERIAL DATA SHEET

Parkside Steel

(Stockholders) Ltd

ISO 9001 | BSI FS 86692

Est. 1977 | Co. 01325509

01623 687 660

OVERVIEW

EN9 is a high carbon steel providing higher hardness and wear resistance than EN8 in the normalised condition. Used for applications requiring good surface hardness without the heat treatment equipment needed for full induction hardening.

TYPICAL APPLICATIONS

- Wear-resistant blades and edges
- Agricultural wear parts
- Springs
- Clutch parts
- Woodworking tooling
- High-hardness machined components

SUPPLY & PROCESSING

Supply: Bright round bar 10-80mm. Black round bar.
Condition: Normalised.
Weldability: Difficult. Preheat 250-300C. Avoid where possible.
Machinability: Moderate. 55-80 m/min carbide.
Certification: 2.2 Test Report standard.

GRADE EQUIVALENTS

Standard	Designation
BS EN 10083-2:2006	C55E / 1.0535
BS 970:1991 (withdrawn)	070M55
AISI/SAE	1055
DIN	C55 / 1.0535
ISO	C55E

CHEMICAL COMPOSITION (% by weight)

Designation	C	Si	Mn	P max	S max
070M55	0.50–0.60	0.10–0.40	0.50–0.80	0.05	0.05
C55E	0.52–0.60	0.17–0.37	0.60–0.90	0.035	0.035

MECHANICAL PROPERTIES

Condition	Size (mm)	Tensile Rm (N/mm ²)	Yield Re (N/mm ²)	A% min
Normalised	≤16 / >16–40 / >40–100	620–770 / 600–750 / 580–730	~370 / ~350 / ~330	10 / 10 / 10

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.co.uk 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