

EN8M / 212A42

Free-cutting medium carbon steel

MATERIAL DATA SHEET

Parkside Steel

(Stockholders) Ltd

ISO 9001 | BSI FS 86692

Est. 1977 | Co. 01325509

01623 687 660

OVERVIEW

EN8M is a free-cutting variant of EN8 with elevated sulphur for improved machinability while retaining medium carbon strength. Bridges the gap between EN1A machinability and EN8 strength, preferred for high-volume production of loaded fasteners.

TYPICAL APPLICATIONS

- High-volume bolt and stud production
- Fasteners requiring higher tensile than EN1A
- Turned components needing better machinability than EN8

SUPPLY & PROCESSING

Supply: Bright round bar 6-150mm.

Condition: Cold drawn bright bar.

Weldability: Not recommended. Elevated sulphur.

Machinability: Very good. Significantly better than standard EN8.

Certification: 2.2 Test Report standard.

GRADE EQUIVALENTS

Standard	Designation
BS 970:1991 (withdrawn)	212A42
Nearest DIN equivalent	35S20 / 1.0726
AISI/SAE	1141 / 1144
ISO	35SPb20

CHEMICAL COMPOSITION (% by weight)

Designation	C	Si	Mn	P max	S
212A42	0.38–0.46	0.10–0.40	1.00–1.40	0.07	0.20–0.30

MECHANICAL PROPERTIES

Condition	Tensile Rm (N/mm ²) approx	Hardness HB approx
Bright Drawn	~550–700	~163–207

Indicative values. Properties vary by section size and heat treatment condition. Confirm with Parkside Steel.

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