

EN26 / 826M40

40NiMoCr10-5 1.6745

MATERIAL DATA SHEET

Parkside Steel

(Stockholders) Ltd

ISO 9001 | BSI FS 86692

Est. 1977 | Co. 01325509

01623 687 660

OVERVIEW

826M40 (formerly EN26) is a 2½% nickel-chromium-molybdenum high-tensile through-hardening alloy steel, a step up in strength and hardenability from EN24 (817M40). The elevated nickel and molybdenum give deep hardenability, so large sections hold consistent mechanical properties from surface to core. The high molybdenum content also resists temper brittleness, allowing tempering anywhere in the 300–550°C range without a severe loss of impact toughness. Supplied hardened and tempered, most commonly Conditions V and W.

TYPICAL APPLICATIONS

- Aircraft undercarriage and airframe components
- Ordnance components and turbine discs
- Heavy-duty transmission gears and pinions
- Connecting rods, crankshafts and differential shafts
- High-strength studs and bolts
- Electric motor shafts and mandrel bars for seamless tube

SUPPLY & PROCESSING

Supply: Black round bar 40–300mm.

Condition: Hardened and tempered. Conditions V and W are most common; others to order.

Surface treatment: Suitable for nitriding, induction and flame hardening after machining.

Certification: 3.1 Inspection Certificate standard.

GRADE EQUIVALENTS

Standard	Designation
BS 970:1955	EN26
BS 970:1991 (withdrawn)	826M40
BS EN	40NiMoCr10-5
Werkstoff No.	1.6745
Material class	~2½% Ni-Cr-Mo through hardening

CHEMICAL COMPOSITION (% by weight)

Designation	C	Si	Mn	P max	S max	Cr	Ni	Mo
826M40	0.36–0.44	0.10–0.35	0.45–0.70	0.035	0.040	0.50–0.80	2.30–2.80	0.45–0.65

MECHANICAL PROPERTIES

Condition	Tensile (N/mm²)	Yield min	Elong. A%	Hardness HB
U	925–1075	755	12	269–331
V (common)	1000–1150	850	12	293–352
W (common)	1075–1225	940	11	311–375
X	1150–1300	1020	10	341–401
Y	1225–1375	1095	10	363–429
Z	1550 max	1235	5	444 max

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

TO ORDER / GET A QUOTE

01623 687 660 sales@parksidesteel.uk.com
parksidesteel.co.uk
No minimum order. Same-day collection available.

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