

### Engineering Steel

#### Applications

- Valve stems
- Connecting rods
- Clutch plates
- Shackle pins
- Die casting dies

#### Product Description

EN41 is a chromium aluminium molybdenum nitriding steel. The material offers high wear resistance together with toughness and ductility. EN41 is defined by its suitability for nitriding which gives the material a hard, wear resistant case. EN41 is harder wearing than EN40B and offers excellent abrasion resistance.

#### Weldability

Not recommended.

#### Key features:

- Nitriding steel
- Excellent wear & abrasion resistance
- High toughness & ductility
- Harder wearing than EN40B

#### Machinability

Readily machinable.

#### Related material specifications

BRITISH BS 970:1991 905M39  
BRITISH BS 970:1955 EN41B

#### Availability

Bar.

#### Chemical Composition (weight %)

	C	Si	Cr	Mo	Al	Mn	Ni	P	S
min.	0.35	0.10	1.40	0.10	0.90				
max.	0.45	0.45	1.80	0.25	1.30	0.65	0.40	0.05	0.05

#### Mechanical Properties (subject to ruling section)

Condition	Tensile N/mm <sup>2</sup>	Yield N/mm <sup>2</sup>	Elongation %	Izod KCV J	Hardness Brinell
R	700-850	480	16	28	201-255
S	775-925	525	14	16	223-277

### Technical Assistance

Our knowledgeable staff backed up by our resident team of qualified metallurgists and engineers, will be pleased to assist further on any technical topic.

#### UK Service Centres:

Smiths Belfast **02895 908 897**  
Smiths Biggleswade **01767 604 704**  
Smiths Birmingham **0121 728 4940**  
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#### Quality & Testing:



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