

Applications

- Automotive gears and parts
- Shafts
- Towing pins
- Load bearing tie rods
- Oil & Gas industry applications

Product Description

EN19 is a high quality alloy steel with tensile strength. With a combination of good ductility and shock resistance, EN19 is suitable for applications with very high loading such as engine gear boxes. Popular in the automotive sector it is possible to machine the material extremely accurately, in recent years EN19 has become an established material in the Oil & Gas sector. The material lends itself well to any application where strength is a primary consideration.

Hardening

High strength up to 60mm thickness

Availability

Bar.

Key features:

- High quality alloy steel
- High tensile steel
- Good ductility and shock resistance
- Good wear resistance
- Can be induction hardened

Machinability

More difficult to machine but can be machined to fine dimensional tolerances

Related material specifications

BRITISH BS 970:1991	709M40T
BRITISH BS 970:1955	EN19T
GERMAN DIN	42CrMo4
FRENCH AFNOR	42CD4
SWEDISH SS	2244
AMERICAN SAE	4140
EUROPEAN STEEL NO.	1.7225
EUROPEAN STEEL NAME	42CrMo4
EUROPEAN STANDARD	EN10277-5

Chemical Composition (weight %)

	C	Mn	Cr	Mo	Si	S	P
min.	0.35	0.50	0.90	0.20	0.10		
max.	0.45	0.80	1.50	0.40	0.35	0.05	0.035

Mechanical Properties (subject to ruling section)

Condition	Tensile N/mm ²	Yield N/mm ²	Elongation %	Izod KCV J	Hardness Brinell
S	775-925	555	13	22	223-277
T	850-1000	680	13	50	248-302
U	925-1000	755	12	42	269-331

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.

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