

MATERIAL DATA SHEET



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709M40 [EN19]

Condition of supply:-	<i>As Rolled/Forged, Annealed, Quenched & Tempered</i>
Surface Condition:-	<i>Black, Bright, Proof machined, Machined to Requirements</i>

Description:

709M40 [EN19] is a **1% Chrome-Moly Through-Hardening Steel** capable of surface hardening by nitriding. Suitable for applications where good tensile, ductility and shock resistance properties are important. May be induction hardened to give improved resistance wear.

Typical Applications:

Gears, Shafts, Crank Shafts, Rams and High Tensile Studs

Typical Chemical Composition:

	C	Si	Mn	S	P	Cr	Mo
Min	0.36	0.10	0.70			0.90	0.25
Max	0.44	0.40	1.00	0.040	0.035	1.20	0.35

Mechanical Properties – 709M40T

	UTS (N/mm ²)	Yield [N/mm ²]	Elongation %	Charpy J -46c	Hardness HB
T-Condition >6mm	850-1000	700	9	40	248/302

Machining

709M40 is readily machinable allowing processes such as Sawing, Turning, Drilling, Boring and Milling to be relatively easily achieved.

Form of supply:

Material can be supplied, Black Annealed - Rolled/Forged Bar, Proof Machined, Bright Turned or Ground Bar, Cut Pieces or Machined to customer specification.

Size ranges from:

25mm diameter - 800mm diameter

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