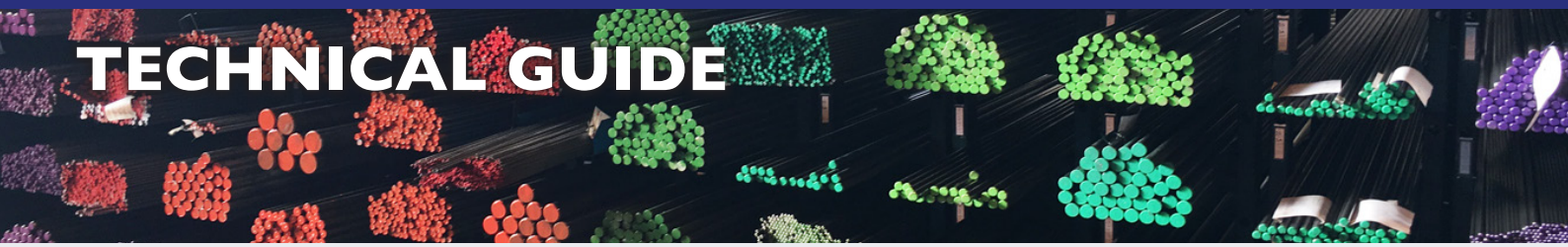

709M40T / EN19T

Steel Description

709M40T / EN19T is a 1% chromium molybdenum steel which is supplied in the bright drawn, turned and hot rolled condition. 709M40T / EN19T is supplied in the hardened and tempered "T " condition and with added molybdenum, it not only offers high tensile strength but with its high shock and load tolerance characteristics, together with being able to machine the material extremely accurately, it has become popular in the automotive sector for use in engine gear boxes, axles, and drive shafts. 709M40T / EN19T can also be flame induction hardened or nitrided to maximise the wear and abrasion characteristics of the material and in recent years it has also become an established material in the Petrochemical, Oil & Gas sector. See properties below and our hardness comparison table under the Useful Information section on our website.

BS970: 1955	BS970: 1991	COLOUR CODE	DESCRIPTION
EN19T	709M40T		Bright / black 1% chromium molybdenum steel

CHEMICAL ANALYSIS	
Car	0.36 / 0.44
Sil	0.10 / 0.40
Mang	0.70 /1.00
Phos	0.035 max
Sul	0.040 max
Chr	0.90 / 1.20
Moly	0.25 / 0.35

MECHANICAL PROPERTIES	
Tensile Strength N/MM2 Min Rm	850 / 1000
Yield Stress N/MM2 Min Rm	700
Elongation A Min % on 5.65√SO	9
Izod Min	54
Kcv Min	-
Proof Stress 0.2% N/MM2 Min	680
Brinell Hardness	248 / 302

INTERNATIONAL SPECIFICATION COMPARISON	
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

SIZE RANGE SUMMARY			
	Rounds	IMP	3/8" - 3" dia
		MM	10mm - 100mm dia

SEE STOCK RANGE FOR SPECIFIC SIZES.

QUICK VIEW SYSTEM	
MACHINEABILITY	40
WELDABILITY	Pre / post head precaution required
HARDENABILITY	High strength up to 60mm dia
SELECTION GUIDE AND USAGE EXAMPLES	Good tensile, ductility and shock resistance. Can be induction hardened to give resistance to wear