

# Material: BS 970 EN8D

## Standard Specification For Worught Steel For Mechanical and Allied Engineering Purposes

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** BS 970 EN8D Worught Steel For Mechanical and Allied Engineering Purposes

**Application:** Intended for Valve, Pump, General Engineering, Automotive and Other Industries

**Grade Belongs to the Industry:** Rod, Bar and Forging

Chemical Composition		
Carbon	C %	0.400 - 0.450
Silicon	Si %	0.100 - 0.400
Manganese	Mn %	0.700 - 0.900
Phosphorus	P %	0.050 max.
Sulphur	S %	0.050 max.
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment
As-Raw or Normalizing or Annealing or Hardening & Tempering

Mechanical Properties	
Tensile Strength in Mpa	550 min.
Yield Strength in Mpa	280 min.
Elongation in %	16 min.
Reduction of Area in %	-
Hardness in HB	152 - 207
Impact in Joule	16 J @ RT

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
C45	EN	European Union	Rod, Bar and Forging
1040	SAE	USA	Rod, Bar and Forging
1040	AS	Australia	Rod, Bar and Forging
C40	DIN	Germany	Rod, Bar and Forging
080M40	BS	British	Rod, Bar and Forging
S40C	JIS	Japan	Rod, Bar and Forging
G10400	UNS	USA	Plate, Strip, Sheet and Tube

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