


# TECHNICAL GUIDE

## 817M40 ANNEALED / EN24 ANNEALED

### Steel Description


817M40 ANNEALED / EN24 ANNEALED is a through hardening 1.1/2% Nickel Chromium Molybdenum alloy steel which is supplied in the bright drawn annealed condition with a max Hardness of HB 277, which enables good machineability prior to direct hardening, and is used ultimately for components requiring a good tensile, ductility, shock and wear resistance properties. We can also supply this specification in the 817M40 Hardened and Tempered “T” condition on which we also have a technical guide.

BS970: 1955	BS970: 1991	COLOUR CODE	DESCRIPTION
EN24 ANNEALED	817M40 ANNEALED		Bright drawn 1.1/2% nickel chromium molybdenum steel

CHEMICAL ANALYSIS	
Car	0.36 / .044
Sil	0.10 / 0.40
Mang	0.45 / 0.70
Phos	0.035 max
Sul	0.040 max
Chr	1.00 / 1.40
Moly	0.20 / 0.35
Nick	1.30 / 1.70

MECHANICAL PROPERTIES	
Tensile Strength N/MM2 Min Rm	
Yield Stress N/MM2 Min Rm	
Elongation A Min % on 5.65√SO	
Izod Min	
Kcv Min	
Proof Stress 0.2% N/MM2 Min	
Brinell Hardness	277 max

INTERNATIONAL SPECIFICATION COMPARISON	
BRITISH BS 970:1991	817M40 ANNEALED
BRITISH BS 970:1955	EN24 ANNEALED
GERMAN DIN	34NiCrMo6
FRENCH AFNOR	35NCD6
SWEDISH SS	2541
AMERICAN SAE	4340
EUROPEAN STEEL NO.	1.6582
EUROPEAN STEEL NAME	34CrNiMo6
EUROPEAN STANDARD	EN10277-5

SIZE RANGE SUMMARY			
	Rounds	MM	10mm - 60mm dia

SEE STOCK RANGE FOR SPECIFIC SIZES.

QUICK VIEW SYSTEM	
MACHINEABILITY	50
WELDABILITY	Pre / post heat precaution required
HARDENABILITY	High strength up to 100mm dia
SELECTION GUIDE AND USAGE EXAMPLES	Max h/b 277 enabling good machineability prior to direct hardening