

Material Grade: **070M55**
 Material Condition(s): **Untreated / Normalised / Drawn**
 Surface Finish: **As rolled / As forged / Bright drawn / Bright turned**

Associated Standard: **BS970**

Description:

A medium carbon steel with good tensile strength. Although this grade is capable of through hardening by quenching and tempering on limited sections, it is more commonly supplied in the untreated or normalised condition. It possess good wear resistance, but poor weldability.

Typical applications: **Gears, cylinders, cams, sprockets**

1. STEELMAKING

	<u>C</u>	<u>Si</u>	<u>Mn</u>	<u>S</u>	<u>P</u>	<u>Cr*</u>	<u>Ni*</u>	<u>Mo*</u>
Min	0.50	0.10	0.50					
Max	0.60	0.40	0.90	0.05	0.05	0.30	0.40	0.15

(* denotes residual element)

2. TYPICAL MECHANICAL PROPERTIES

Test type		Tensile and hardness test (at room temperature)					
		Yield (Re)	0.2 % proof	UTS (Rm)	Elong (A)	R of A (Z)	Hardness
Unit		N/mm2	N/mm2	N/mm2	%	%	HB
Normalized	Min	355		700	12		201
	Max						255
Drawn	Min	600		750	7		
	Max						
Q + T to condition 'R'	Min	415		700	14		201
	Max			850			255