

Material Grade: **635M15**
 Material Condition(s): **Untreated / Normalised**
 Surface Finish: **As rolled**

Associated Standard: **BS970**

Description:

A low alloy case-hardening steel may be used as an alternative to 655M17. The steel can be carburized and hardened to produce a hard wear resistant case with a core strength of 770N/mm

Typical applications: **Gears, shafts, pinions, tappets, valve rockers, collets, track pins, steering balls and worms, transmission components, breech mechanisms and small arms**

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	0.12	0.10	0.60			0.40	0.70	
Max	0.18	0.35	0.90	0.040	0.035	0.80	1.10	0.15

(* denotes residual element)

2. TYPICAL MECHANICAL PROPERTIES

Test type	Tensile and hardness test (at room temperature)						Impact test (KV)
	Yield (Re)	0.2 % proof	UTS (Rm)	Elong (A)	R of A (Z)	Hardness	Room Temp
Unit	N/mm2	N/mm2	N/mm2	%	%	HB	J
Normalised	Min						
	Max					207	
Q+T capability test on 19mm sample	Min		770	12			22
	Max						