

Comparison between 16MnCr5 & SAE 8620

PROPERTY	16MnCr5	SAE 8620
SOFT ANNEALED		
Hardness (HB 30)		
	<=207 HB 30	<=212 HB 30
AFTER CASE HARDENING (IN CORE)		
Yield stress		
<=11mm	>=635 N/mm ²	>=785 N/mm ²
<=30mm	>=590 N/mm ²	>=590 N/mm ²
<=63mm	>=440 N/mm ²	>=490 N/mm ²
Tensile strength		
<=11mm	880 - 1180 N/mm ²	980 - 1270 N/mm ²
<=30mm	780 - 1080 N/mm ²	780 - 1080 N/mm ²
<=63mm	640 - 930 N/mm ²	690 - 930 N/mm ²
Elongation after fracture (A ₅)		
<=11mm	>=9%	>=9%
<=30mm	>=10%	>=10%
<=63mm	>=11%	>=11%
Reduction of area		
<=11mm	>=35%	>=35%
<=30mm	>=40%	>=40%
<=63mm	>=40%	>=40%
Impact Value (DVM)		
<=11mm	>=34J	>=41J
<=30mm	>=34J	>=41J
TREATED TO HARDNESS RANGE		
Hardness (HB ₃₀)		
<=150mm	156 - 207 HB 30	161 - 212 HB 30
COLD DRAWN, SOFT ANNEALED		
Tensile strength		
	<=530 N/mm ²	<=570 N/mm ²
Reduction of area		
	>=62%	>=62%
SOFT ANNEALED (AND BRIGHT TURNED)		
Tensile strength		
	<=550 N/mm ²	<=590 N/mm ²
Reduction of area		
	>=60%	>=60%

Make real savings, call **Craig James, Sales Manager** on 0114 250 3605 to discuss your requirements or email craig.james@hillfoot.com