

Quality	16MnCr5
According to Standard	EN 10084 : 1998
Number	1.7131



#### Comparable Standards

EN	W.N.	B.S.	Afnor	Italy / Spain
16MnCr5	1.7131	590M17	16MC5	16MnCr5

#### Chemical Analysis

C %	Si % max	Mn %	P% max	S%	Cr %
0.14 to 0.19	0.40	1.00 to 1.30	0.035	≤ 0.035	0.80 to 1.10
Mo %	Ni %	B			
—	—	—			

#### Hot Work and Heat Treatment Temperatures

End quench test	Carburizing temperature <sup>3)</sup>	Core-hardening temperature <sup>4), 5)</sup>	Case-hardening temperature <sup>4), 5)</sup>	Tempering <sup>6)</sup>
Quenching <sup>2)</sup> °C	°C	°C	°C	°C
870	880 to 980	860 to 900	780 to 820	150 to 200

#### Mechanical Properties at Room Temperature

Mechanical Properties for the ruling section with a diameter  $\varnothing$ d) or for flat products thickness (f) of

R <sub>e</sub> min. MPa <sup>c</sup>	R <sub>m</sub>	A min. %	Z min. %	KV <sup>b</sup> min. J
-	-	-	-	-

Hardness Requirements for Products Delivered in the Conditions 'treated to improve shearability' (+S), 'annealed to maximum hardness requirements' (+A), 'treated to hardness range' (+TH), or 'treated to ferrite-pearlite structure and hardness range' (+FP)

Brinell Hardness in the Condition					
+S	+A	+TH		+FP	
max.	max.	min.	max.	min.	max.
<sup>1)</sup>	207	156	207	140	187