

Quality	20MnCr5
According to Standard	EN 10084 : 1998
Number	1.7.137



Comparable Standards

EN	W.N.	Finland	Afnor	Italy
20MnCr5	1.7147	510	20MC5	20MnCr5

Chemical Analysis

C %	Si % max	Mn %	P% max	S%
0.17 to 0.22	0.40	1.10 to 1.40	0.035	≤ 0.035
Mo %	Ni %	B		
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Hot Work and Heat Treatment Temperatures

End quench test	Carburizing temperature ³⁾	Core-hardening temperature ^{4),5)}	Case-hardening temperature ^{4),5)}	Tempering ⁶⁾
Quenching ²⁾ °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)d) or for flat products thickness (f) of

Re min. MPa ^c	R _m	A min. %	Z min. %	KV ^b 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 max.	+A max.	+TH min.	+TH max.	+F min.
255	217	170	217	152

Cr %

1.00 to 1.30

P

max.

201
