



20MnCr5 AISI 5120

EN10084

C 0.2 Si 0.35 Mn 1.20 Cr 1.20 S 0.3 P 0.02

Steel properties

20MnCr5 is used for materials with a required core tensile strength of 1000 – 1300 N/mm² and just right carrying resistance as boxes, piston bolts, spindles, camshafts, gears, shafts and other mechanical controlling materials.

Standards

AFNOR 20MC5

Physical properties

Thermal conductivity °C W/(m• K)

20	350	700
11.7	12.5	13.8

Applications

Alloyed case hardening steel for parts with a required core tensile strength of 1000 – 1300 N/mm² and good wearing resistance as boxes, piston bolts, spindles, camshafts, gears, shafts and other mechanical controlling parts.

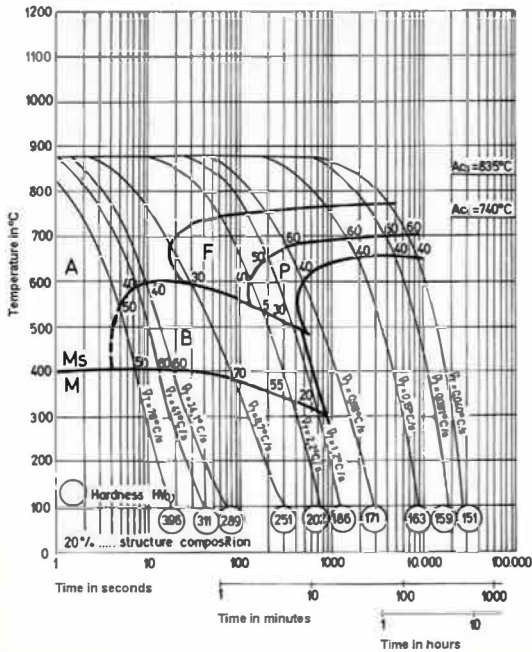
Heat treatment

Soft annealing °C	Cooling	Hardness HB
750-780	Furnace	max. 218

Stress-relief annealing °C	Cooling
550-600	Furnace

1st pre-heating °C	2nd and 3rd pre-heating °C	Hardening °C	Quenching	Tempering °C	Hardness after tempering HRC
up to approx. 400 in an air-circulating furnace	a) 790 b) 780 and 850	780-820	810 °C a) Oil b) saltbath	at least twice 150-200	60-62

Tempering Graph



Hardness Graph

