



8620 AISI 8620 DIN 21NiCrMo2

AFNOR 20NCD2

C 0.18 Si 0.40 Mo 0.20 Mn 0.70 Ni 0.45

Steel properties

8620 is a hardenable chromium, molybdenum, nickel low alloy steel often used for carburizing to develop a case hardened part. This case-hardening will result in good wear characteristics.

Standards

AISI 8620 AFNOR 20NCD2

Physical properties

Thermal conductivity °C W/(m·K)	20	350	700
	46.0	46.2	46.4

Applications

Application- Gears, shafts and other applications where a hard carburized case and a tough core are desired.

Heat treatment

Soft annealing °C	Cooling	Hardness HB			
820-850	Furnace	max. 290			
Stress-relief annealing °C	Cooling				
630-650	instill air				
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) 780 b) 780 and 850	840-870	810 °C a) Oil b) Quench	at least twice 150-200	62-64

# Tempering Graph

EFFECT OF TEMPERING ON CASE HARDNESS

