

# Cryodur 2721

(50NiCr13)

C 0.55 Si 0.25 Mn 0.45 Cr 1.00 Ni 3.10

**Steel properties** Air or oil-hardenable steel with good machinability and high toughness.

**Physical properties**

Thermal conductivity at °C	20	350	700
W/(m · K)	31.0	31.2	31.8

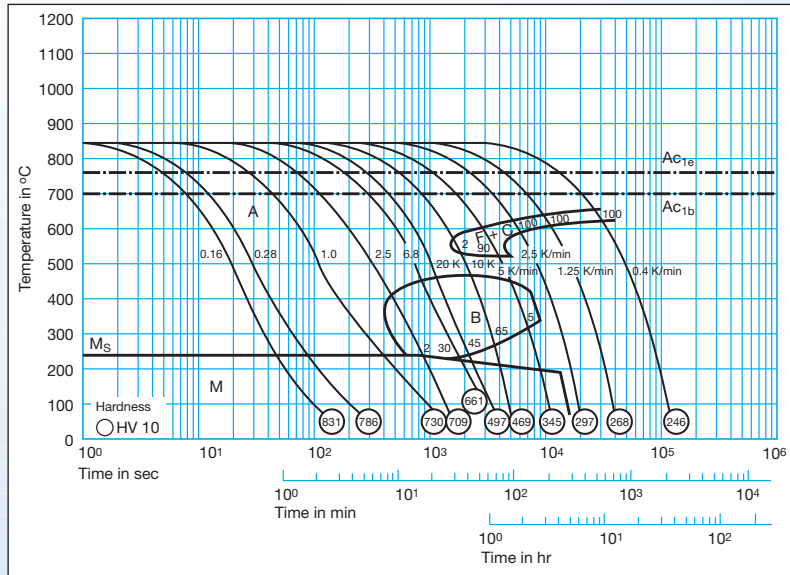
**Applications**

Cold heading dies, hobbers, cutlery dies, reinforcements and pelleters.

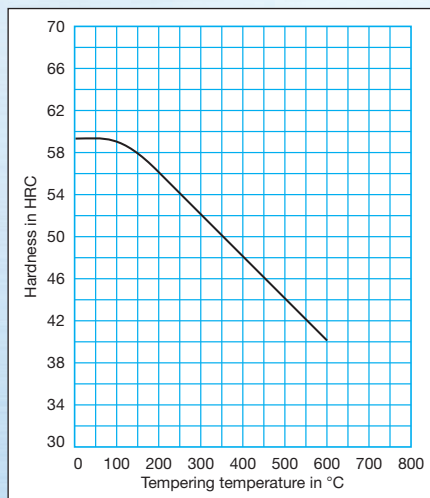
**Heat treatment**

Soft annealing °C	Cooling	Hardness HB				
610 – 650	Furnace	max. 250				
Stress-relief annealing °C	Cooling					
approx. 600	Furnace					
Hardening °C	Quenching	Hardness after quenching HRC				
840 – 870	Oil or saltbath, 180 – 220 °C	59				
Tempering °C	100	200	300	400	500	600
HRC	59	56	52	48	44	40

**Time-temperature-transformation diagram**



**Tempering diagram**



Reference numbers in brackets are not standardized in EN ISO 4957.