

Cryodur 2101

(62SiMnCr4)

C 0.65 Si 1.10 Mn 1.10 Cr 0.70

Steel properties

Good toughness and wear resistance.

Physical properties

Coefficient of thermal expansion

at °C	20 – 100	20 – 200
$10^{-6} \text{ m}/(\text{m} \cdot \text{K})$	11.8	12.5

Thermal conductivity

at °C	20	350	700
$\text{W}/(\text{m} \cdot \text{K})$	31.0	31.5	31.9

Applications

Spring collets, shear blades, guide rails and punching tools.

Heat treatment

Soft annealing °C

700 – 750

Cooling

Furnace

Hardness HB

max. 225

Stress-relief annealing °C

approx. 650 – 680

Cooling

Furnace

Hardening °C

830 – 860

Quenching

Oil or saltbath, 180 – 220 °C

Hardness after quenching HRC

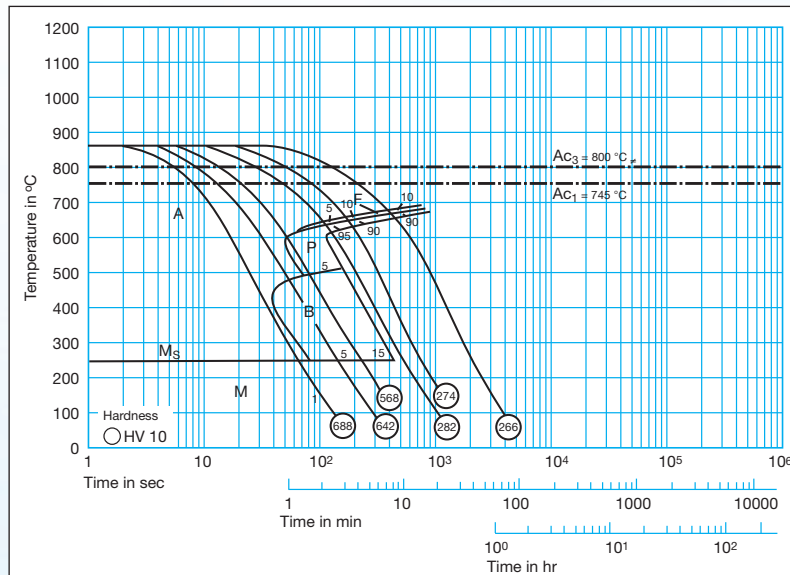
61

Tempering °C

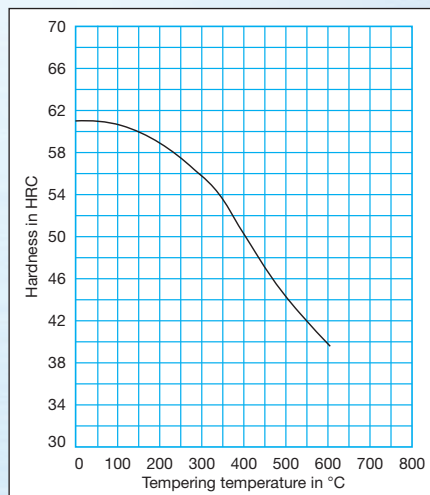
HRC

100	200	300	400	500	600
61	59	56	50	45	40

Time-temperature-transformation diagram



Tempering diagram



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