

Formadur 2083 / 2083 Superclean

X40Cr14

C 0.40 Cr 13.00

Steel properties

Corrosion-resistant, good polishability. We recommend the use of Formadur 2083 Superclean for the highest demands on polishability.

Standards

AISI 420

AFNOR Z40C14

Physical properties

Coefficient of thermal expansion

at °C	20 – 100	20 – 150	20 – 200	20 – 250	20 – 300	20 – 350	20 – 400	20 – 450	20 – 500
$10^{-6} \text{ m/(m} \cdot \text{K)}$	11.1	11.3	11.6	11.8	12.0	12.3	12.4	12.5	12.6

Quenched and tempered

Thermal conductivity

at °C	23	150	300	350	400	500
$\text{W/(m} \cdot \text{K)}$	22.6	24.0	24.6	24.9	24.4	23.7

Quenched and tempered

Applications

Moulds for processing plastics with corrosive reactions.

Heat treatment

Soft annealing °C

760 – 800

Cooling

Furnace

Hardness HB

max. 230

Hardening °C

1000 – 1050

Quenching

Oil or saltbath, 500 – 550 °C

Hardness after quenching HRC

56

Tempering °C

HRC

100

200

300

400

500

600

56

55

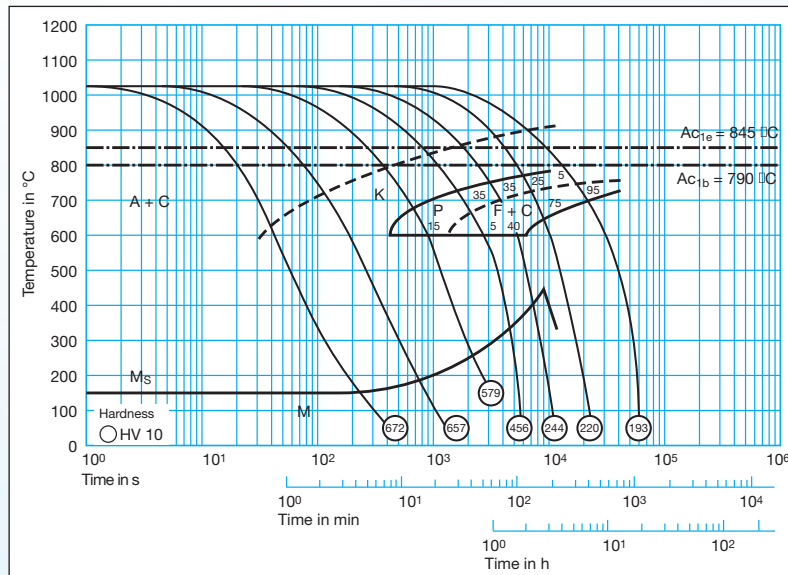
52

51

52

40

Time-temperature-transformation diagram



Tempering diagram

