

# 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

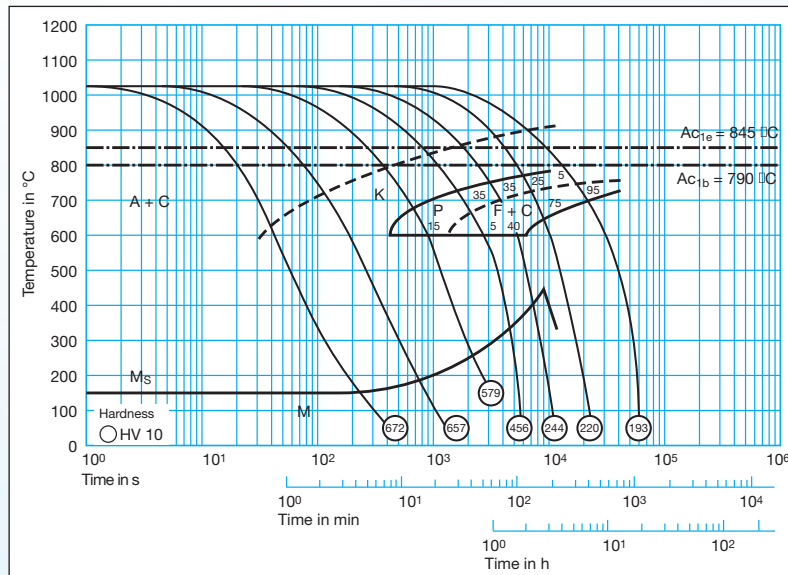
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## Time-temperature-transformation diagram



## Tempering diagram

