

Formadur® 2083/ 2083 Superclean Corrosion Resistant Steel

Data Sheet X40Cr14

AISI ~420 / AFNOR Z40C14

07.05.26 REV.3.

Chemical composition in %

C	Cr
0.40	13.00

Material Properties

- Corrosion resistant
- Good polishability

For highest polishability requirements, we recommend using Formadur® 2083 Superclean remelted.

Typical Applications

- Moulds for processing plastics with corrosive reactions

Physical Properties

Coefficient of thermal expansion in 10^{-6} m/(m.K)

	Quenched and tempered
20–100 °C	11.1
20–150 °C	11.3
20–200 °C	11.6
20–250 °C	11.8
20–300 °C	12.0
20–350 °C	12.3
20–400 °C	12.4
20–450 °C	12.5
20–500 °C	12.6

Thermal conductivity in W/(m.K)

	Quenched and tempered
23 °C	22.6
150 °C	24.0
300 °C	24.6
350 °C	24.9
400 °C	24.4
500 °C	23.7

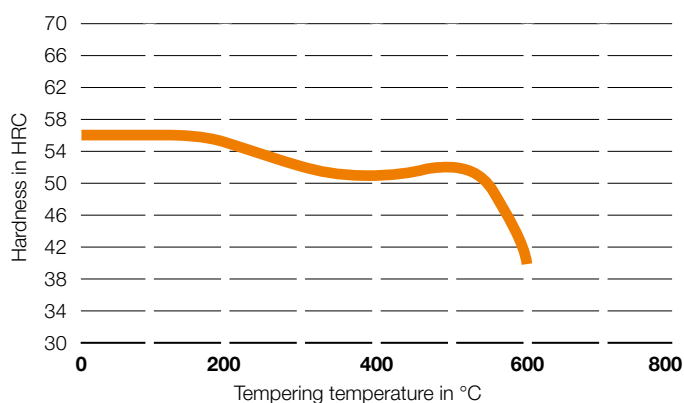
Heat treatment

Soft annealing	760–800 °C	Furnace	≤ 230 HB
Hardening	1000–1050 °C	Oil or saltbath, 500–550 °C	56 HRC after quenching
Tempering	100 °C		56
	200 °C		55
	300 °C		52
	400 °C		51
	500 °C		52
	600 °C		40

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Corrosion Resistant Steel

Tempering



Time-temperature-transformation

