

Formadur® 2316/ 2316 Superclean Corrosion Resistant Steel

Data Sheet
~AISI ~420mod - X38CrMo16

Chemical composition in %

C	Cr	Mo
0.36	16.00	1.20

Material Properties

- Increased corrosion resistance in comparison to Formadur 2083
- Good polishability
- Usually supplied in quenched and tempered condition with a working hardness of approx. 300 BHN

Typical Applications

- Moulds for processing plastics with corrosive reactions

Physical Properties

Coefficient of thermal expansion (10^{-6} K^{-1})

20–100 °C	20–150 °C	20–200 °C	20–250 °C	20–300 °C	20–350 °C	20–400 °C	20–450 °C	20–500 °C
10.5	10.7	10.8	10.9	11.1	11.3	11.5	11.6	11.7

Quenched and tempered

Thermal conductivity (W/m.K)

23 °C	150 °C	300 °C	350 °C	400 °C	500 °C
23.5	24.2	24.3	24.4	24.1	23.2

Quenched and tempered

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Heat treatment

Soft annealing

Temperature: 760 – 800°C

Cooling: Furnace

Annealed hardness: 230 BHN max.

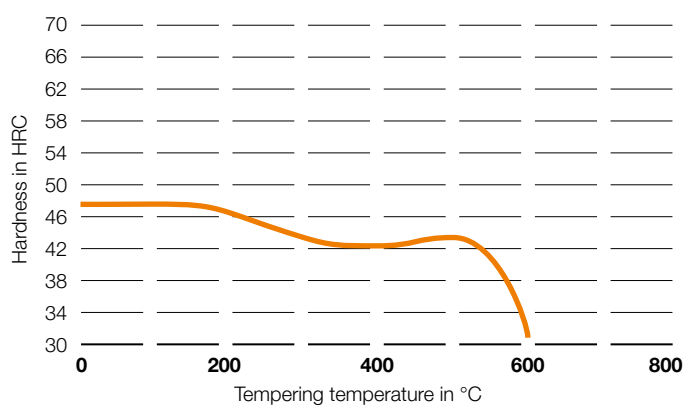
Hardening

Temperature: 1020 – 1050°C

Quenching: Oil or saltbath, 500 – 550 °C

Hardness after quenching: 49 HRC

Tempering



Time-temperature-transformation

