Dörrenberg Edelstahl

DE - Brand:

Special Steel

X40PH

Chemical composition:
(Typical analysis in %)

C	Mn	Ni	Al	others		
0,14	1,50	3,00	1,00	+		

Steel properties:

Precipitation hardened plastic mould steel, excellent polishability, dimensionally stable, suitable for nitriding, higher hardness and wear resistance than classical plastic mould steels.

Applications:

Plastic injection moulds, compression moulds, hot runner systems.

Condition of delivery:

Precipitation hardened, 38 - 42 HRC

Physical properties:

Thermal expansion coefficient

$\left[\frac{10^{-6}\cdot m}{m \cdot K}\right]$	20-100°C	20-200°C	20-300°C	20-400°C
	12,6	13,1	13,5	13,8

Thermal conductivity

$\left[\frac{W}{m \cdot K}\right]$	20°C	200°C	400°C
	28,4	32,3	31,2

Heat treatment:

Solution annealing

Temperature	Cooling	Hardness
880 - 920°C	compressed air, oil	30 - 32 HRC

Precipitation hardening

see precipitation hardening diagram, usually 500 - 520°C, 6h, air

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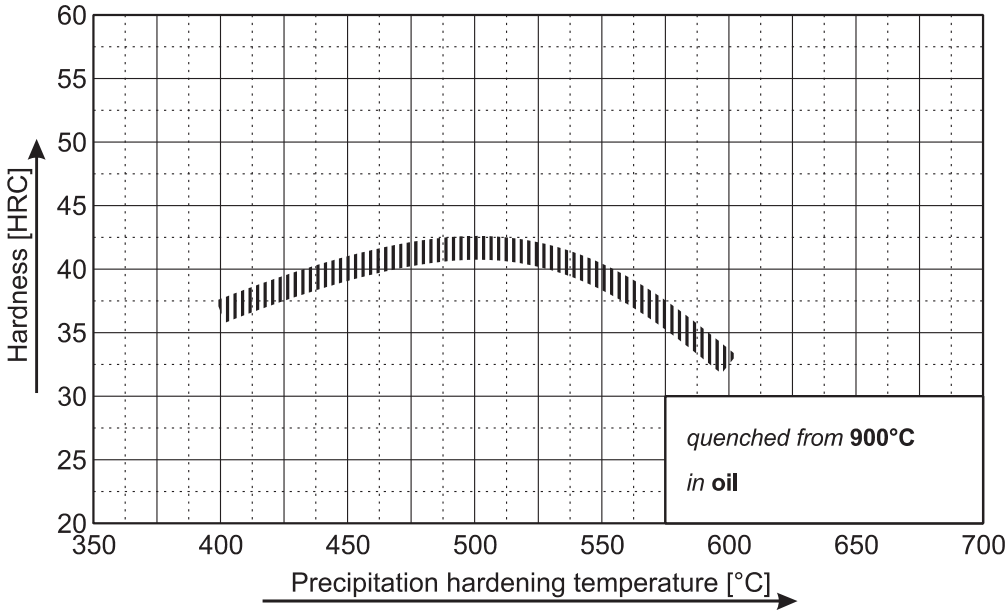
(X40PH) Precipitation hardening diagram



Remarks: All technical information is for reference only.