

Material: 1.2343



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Abbreviated DIN Name: X 37 CrMoV 5-1

Chemical Analysis (%):

C	Si	Cr	Mo	V
0,37	1,0	5,3	1,3	0,4

Hardness: soft-annealed to max. 220 HB
(~770 N/mm²)

Characteristics

Material Properties:

High alloy hot work steel with high resistance to changing temperatures and good heat resistance. High thermal conductivity and toughness.

Uses:

Cavity plates and inserts in plastics and die casting industry (e.g. where nitriding is to be carried out with high core strength).

Physical Properties

Thermal expansion coefficient

(10⁻⁶·m) / (m·K)

100	200	300	400	500	600	700	°C
10,8	11,4	11,8	12,0	12,4	12,8	12,9	

Thermal conductivity

W / (m·K)

20	350	700	°C
25,3	27,2	30,5	

Remarks

Polishing: Highly suitable for polishing due to homogenous structure.

Graining: Well suited.

Nitriding: Increases wear resistance and prevents sticking of insert and components.

Hardening: At 1000°C - 1030°C

The most suitable heat treatment for the relevant workpiece should be discussed with the heat treatment company.

Soft annealing: 800°C - 840°C, approx. 4 h

Stress-relief annealing: To eliminate residual stress after coarse machining at approx. 600°C - 650°C, approx. 4 h with slow furnace cooling.

Normal Working Hardness: 30 - 50 HRC

Dimensions Available: W x L : on request

H - : on request