

Material no.: 1.2099 HASCO.M

**Abbreviated
DIN name:** Special alloy

Chemical analysis (%)

C	Si	Mn	P	S	Cr
0,04		1,2		0,12	13,0

HASCO colour code: orange / blue

**Hardness
when supplied:** prehardened to approx. 280 – 325 HB (~ 950 – 1100 N/mm²)

Characteristics

Material properties:

Alternative to 1.2085 with improved properties. These are evident above all in the improved machinability, outstanding dimensional stability and higher strength. Corrosion-resistant prehardened mould steel with high toughness, readily weldable. 1.2099HASCO.M is a special alloy.

Uses:

Cavity and frame plates in injection moulding and die-casting tools. Further applications in mould design for metal and plastics processing, where corrosion resistance is required due to aggressive plastics or damp climatic conditions. Good machinability and high strength without subsequent heat treatment. Unsuitable for processing PVC.

Physical properties

Thermal expansion coefficient
(10⁻⁶·m)/(m·K)

100	200	300	400	500	600	700	°C
10,0	10,6	11,0	11,3	11,6			

Thermal conductivity
W/(m·K)

20	150	350	°C
21,6	23,2	24,9	

Remarks

Polishing: Technical polishing possible.

Graining: Not usual.

Nitriding: Material is not suitable for this because the corrosion resistance is reduced by nitriding treatment.

Hardening:: Not usual.

Soft annealing: Not usual.

Stress-relief annealing: To eliminate residual stresses after coarse machining at approx. 480°C, approx. 4 h with slow furnace cooling.

K- / P plates, S machining

