



## ATT 2085 MOD (2085)

### CHEMICAL ANALYSIS (PERCENTAGE BY MASS)

	C	Si	Mn	P	S	Cr	Ni
Guide analysis	0.34	0.30	0.95	0.025	0.100	15.0	
Standard	0.28 - 0.38	≤ 1.00	≤ 1.40	≤ 0.030	0.050-0.100	15.00 - 17.00	≤ 1.00

### CHARACTERISTICS

Corrosion-resistant mold steel with higher sulfur content compared with ATT 2316 MOD for very good machining properties.

SEL	X33CrS16
AFNOR	~Z33CS16
AISI	~422 + S

### APPLICATION

Mold frames and mold assemblies for corrosion-resistant injection molding dies.

Not suitable for contour-giving mold parts.

### DELIVERED CONDITION

Quenched and tempered to 265 – 310 HB.\*

### PHYSICAL PROPERTIES

Thermal Conductivity (W/m.K) at	20°C	250°C	500°C
	23.0	24.0	25.0
Thermal Expansion (μm/m) from 20°C to	100°C	250°C	500°C
	10.0	12.0	13.2
Young's modulus (GPa)	20°C	250°C	500°C
	215	203	180

\* Surface hardness in Brinell, converted to DIN EN ISO 18265 Table A.1.

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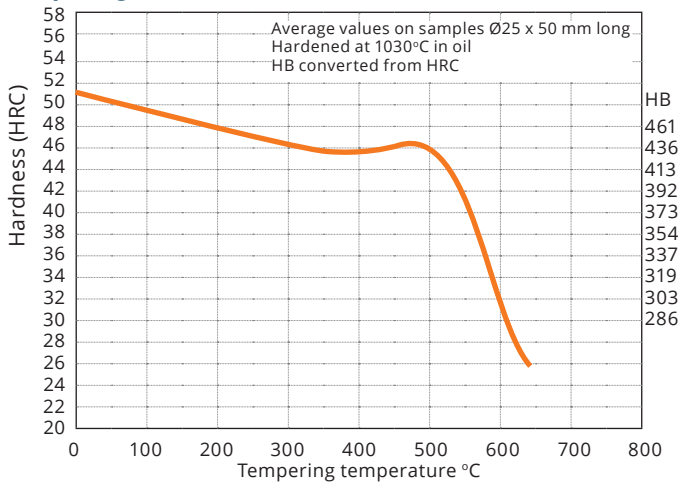


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### HEAT TREATMENT

Stress relieving	Temperature	Approx. 500°C in the quenched and tempered state
	Duration	1 hour per 50 mm wall thickness
	Cooling	Furnace
Soft annealing	Temperature	820°C
	Duration	1 hour per 25mm wall thickness
	Cooling	Furnace
Hardening	Temperature	1030°C
	Duration	1 min per mm wall thickness
Quenching hardness	Max. 48 HRC	in oil or vacuum
	Temperature	See tempering curve
Tempering	Duration	1 hour per 25 mm wall thickness
	Cooling	Air
Working hardness	265-310 HB	

### Tempering curve



### TTT curve (continuous)

