AISI H11 H11 DIN 2343

X37CrMoV5-1 | **C** 0.37 **Si** 1.00 **Cr** 5.4 **Mo** 1.28 **V** 0.40

Steel properties

Hot work tool steel with Chromium 5% has high strength and toughness, best thermal physical phenomenon and in susceptibility to hot cracking. This provides the essential necessities for long tool life in die-casting , Press Forging , extrusion processes etc.

Standards

AISI H11 **AFNOR** Z38CDV5

Physical properties

Coefficient of thermal expansion

at °C	20 – 100	20 – 200	20 – 300	20 – 400	20 – 500	20 – 600	20 – 700
10^{-6} m/(m • K)	11.7	12.3	12.5	12.7	12.75	12.9	12.9

Thermal conductivity

at °C	20	350	700
W/(m • K) Annealed	29.7	30.0	33.5
W/(m • K) Quenched and tempered	26.7	27.4	30.4

Applications

Besides applications typical for the area of hot-work steels, this grade is especially used for ejector pins, tool holders, bridge kind tools, liner holders, Forging Dies, Hot work punches, and shrink work chucks.

Heat treatment

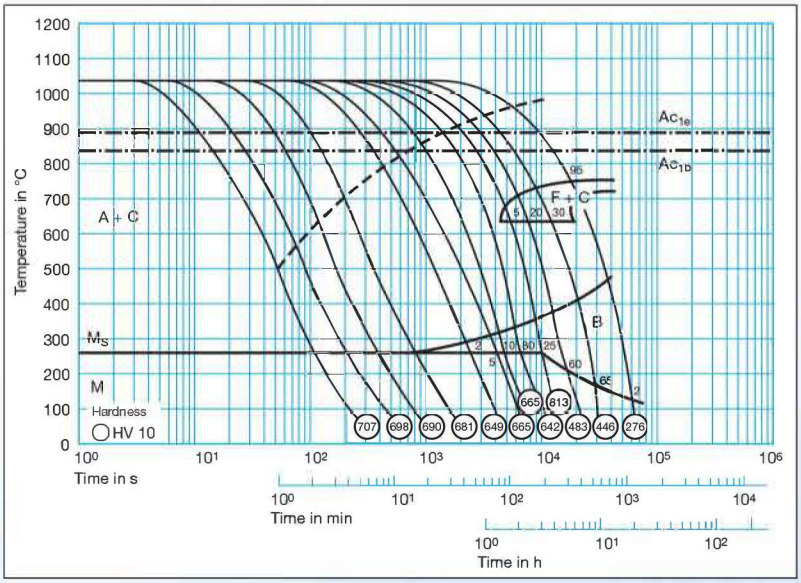
Soft annealing °C	Cooling	Hardness HB
750 – 800	Furnace	max. 230

Stress-relief annealing °C	Cooling
approx. 600 – 650	Furnace

Hardening °C	Quenching	Hardness after quenching HRC
1000 – 1030	Air, oil or saltbath, 500 – 550 °C	54

Tempering °C	100	200	300	400	500	550	600	650	700
HRC	52	52	52	52	54	53	48	37	31

Time-temperature-transformation diagram



Tempering diagram