TOOLMAN SPECIAL STEELS

Hot Work Steel DIN 2606 AISI H12

X37CrMoW 5-1

C 0.30-0.40 **Si** 0.80-1.25 **Cr** 4.75-5.50 **Mo** 1.25-1.75 **V** 0.20-0.50

Steel properties

Excellent Resistance to Wear, High Strength at Elevated Temperature with good Homogenizing with High Toughness. Extra- Fine- Structure without Grain-Boundary Carbide.

Standards

AISI H12 AFNOR Z 35 CDW 5-1

Physical properties

Coefficient of thermal expansion

at °C	20 – 100	20 – 250	20 – 500
10^{-6} m/(m • K)	11.7	12.4	12.9

Thermal conductivity

at °C	20	250	500
W/(m • K) Quenched and tempered	24.2	25.6	28.3

Applications

This steel use for Forming dies, Press dies, Hot Shear, Immediate Roller for Cold Rolling.

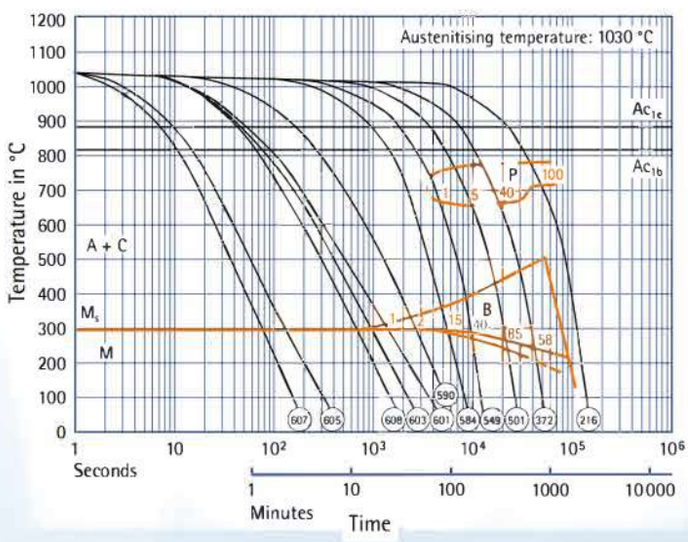
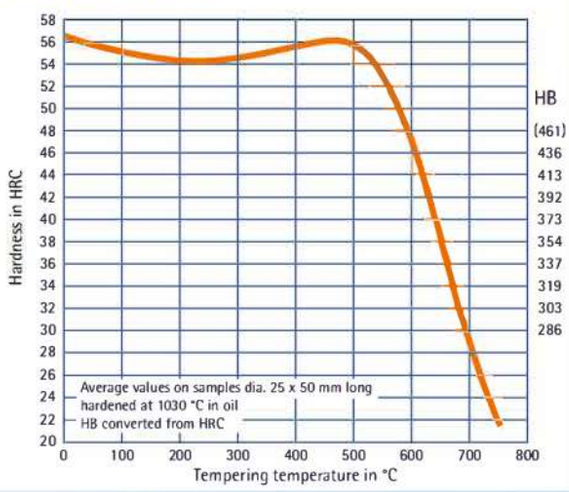
Heat treatment

Soft annealing °C	Cooling	Hardness HB
820	Furnace	max. 235

Stress-relief annealing °C	Cooling
approx. 650	Furnace

Hardening °C	Quenching	Hardness after quenching HRC
1030 – 1130	Oil or Hot bath, 500- 550 ℃	53 min

Tempering °C	100	200	300	400	500	600
HRC	55	54	54.3	54.8	56	48



Tempering curve