



AISI H10 H10 DIN 2365

32CrMoV12-28

C 0.31 Cr 3.00 Mo 2.85 V 0.51

Steel properties

Hot Work Steel H 10 is equivalent steel of DIN 2365 with good high-temperature toughness and high tempering resistance, less Susceptibility to high hot cracking, good thermal conductivity, Can be water-cooled to a limited extent.

Standards

AISI H10 AFNOR 32CDV12-28

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	12.4	12.7	13.2	13.5	13.8

Thermal conductivity at °C

W/(m • K) Annealed	20	350	700
W/(m • K) Quenched and tempered	32.6	34.4	32.4
	31.3	32.0	29.4

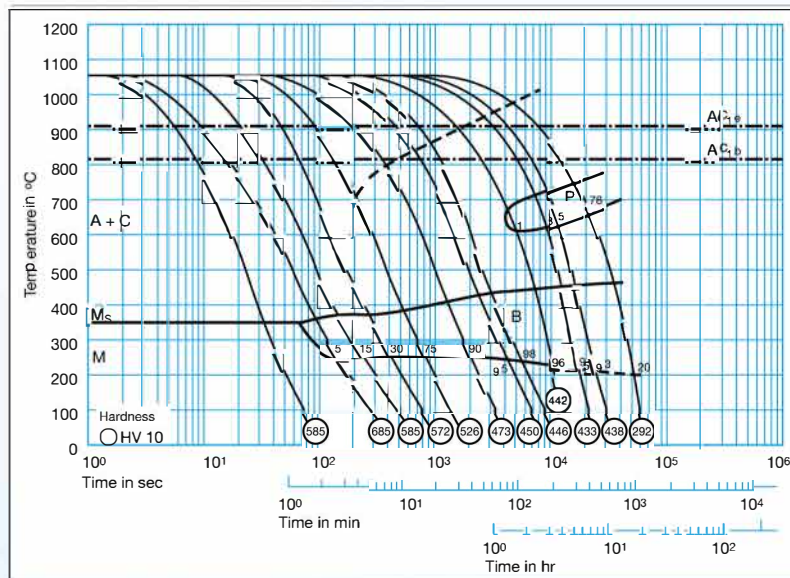
Applications

This tool steel use for hot press and mandrels, forging die and press die inserts, significant hot metal die casting tools, die-casting moulds for non-ferrous heavy metal pressure die-casting.

Heat treatment

Soft annealing °C 740 – 800	Cooling Furnace	Hardness HB max. 185
Hardening °C 1040 – 1060	Quenching Oil or hot bath, 500 – 550 °C	Hardness after quenching HRC 53
Tempering °C HRC	100 200 300 400 500 550 600 650 700	51 50.5 50 50 53 51 48 41 34

Time-temperature-transformation diagram



Tempering diagram

