1.2379

Cold Work Tool Steel

TECHNICAL SHEET

1 Comparision Standards

W.Nr	DIN	JIS equivalent	AISI/SAE	AFNOR	BS	UNI
1.2379	X155CrVMo12-1	SKD11	D-2	Z160CDV12	-	-

2 Chemical Composition

C	Si	Mn	P (max)	S (max)	Cr	Mo	V	Supply Condition	Supply Hardness (HB)
1.45-1.60	0.10-0.60	0.2-0.60	0.030	0.030	11.0-13.0	0.70-1.00	0.70-100	Annealed	240

3 Main Characteristics and Applications

1.2379 tool steel is a high-carbon, high-chromium steel that is widely recognized for its excellent wear resistance and hardness.

Applications:

- Shear Blades
- Punches and Dies
- Knives
- Moulds and Dies
- Precision Components

4 Production Route

EAF - LF - VD - Forging / Rolling + Annealing
- Machining if Required

5 Physical Properties (Reference Values)

	20°C	100°C	250°C	500°C
Thermal expansion coefficient (10-6/K)	10.5	11.5	11.9	12.2
Thermal Conductivity (W/mk)	16.7	20.5	24.2	28.5
Young modulus (Kn/mm2)	210	200	185	165

6 Heat Treatment

TREATMENT	TEMPERATURE	HOLDING TIME (HT)	COOLING	COMMENTS
Annealing	Heat to 830 - 860 °C	Min. H.T. for 2 minute /mm	Furnace	
Stress relieving	Heat to 650 - 700 °C	Min. H.T. for 2 minute /mm	Furnace	
Hardening	Heat to 1000 - 1059 °C	Min. H.T. for 1 minute /mm	Air, Oil or Saltbath, 500 - 550 °C	

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SandeepEnterprises STEEL SOLUTIONS

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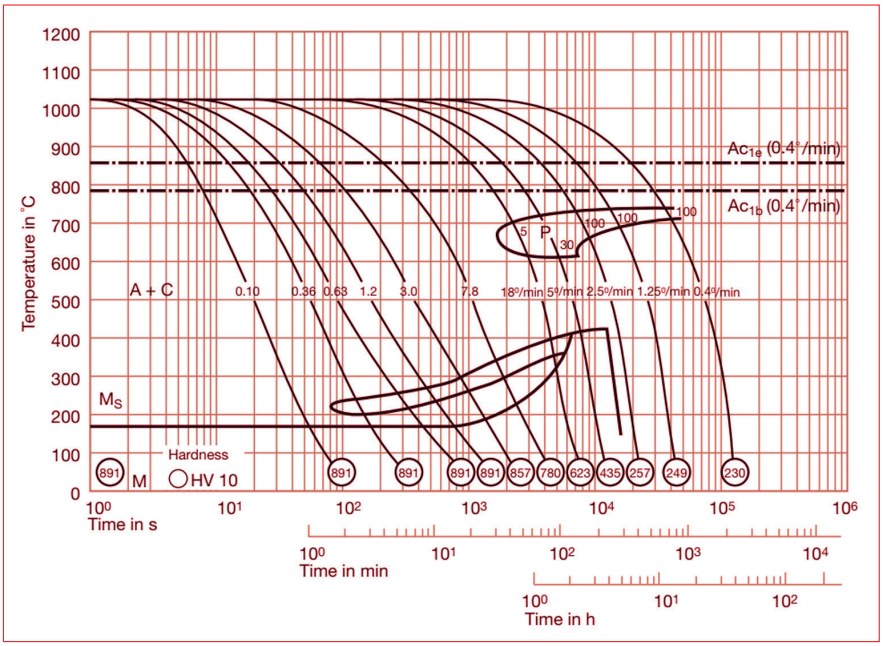
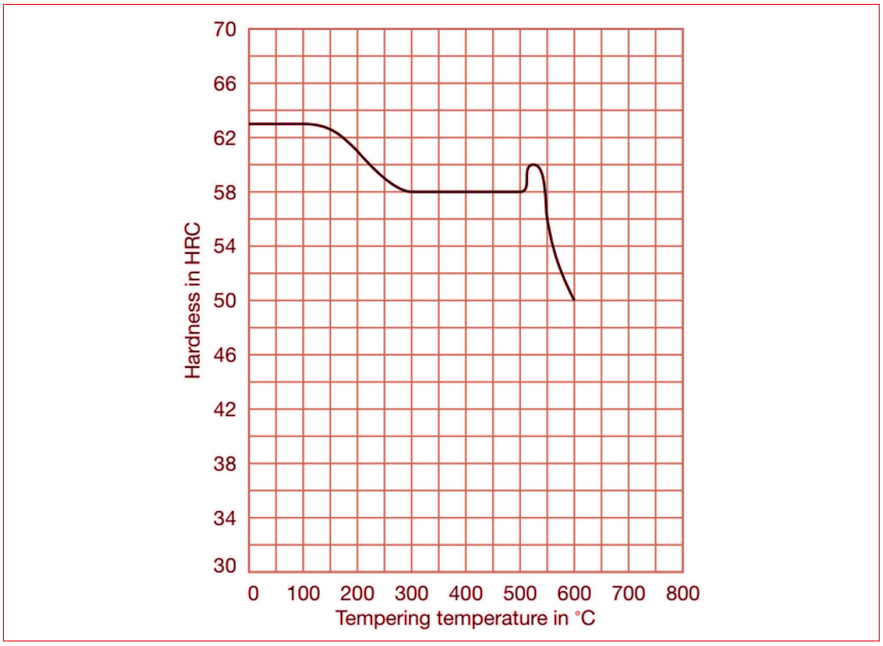
7 C.C.T. Curve



8 Tempering Curve



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