



TECHNICAL SHEET

1 Comparison Standards

W.Nr	DIN	JIS equivalent	AISI/SAE	AFNOR	BS	UNI
1.2365	X32CrMov33	SKD7	H-10	32CDV12-28	-	-

2 Chemical Composition

C	Si	Mn	P (max)	S (max)	Cr	Mo	V	Supply Condition	Supply Hardness (HB)
0.28-0.35	0.10-0.40	0.15-0.45	0.03	0.03	2.70-3.20	2.50-3.00	0.40-0.70	-	-

3 Main Characteristics and Applications

1.2365 is a high-performance alloy that is heat resistant, toughness and resistant to tempering. It is also less susceptible to hot cracking, making it ideal for demanding applications. Its excellent thermal conductivity aids in heat dissipation, while its limited water-cooling capability offers flexibility in cooling processes.

Applications:

- Hot Press and Mandrels
- Forging Die
- Press Die Inserts and Hot Gripper Dies
- Hot Shear Blades
- Punching and Stamping Tools

4 Production Route

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6 Physical Properties (Reference Values)

	20°C	100°C	200°C	300°C	350°C	400°C	500°C	600°C
Coefficient of thermal expansion at °C 10-6 m/(W/mk)	11.8	12.5	12.7	13.1	-	13.5	13.6	13.8
Thermal conductivity at °C (W/mk)	32.8	-	-	-	34.5	-	-	24.2

6 Heat Treatment

TREATMENT	TEMPERATURE	HOLDING TIME (HT)	COOLING	HARDNESS
Annealing	Heat to 750 - 800 °C	Min. H.T. for 2 minute /mm	Furnace	Max. 185
Hardening	Heat to 1030 - 1050 °C	Min. H.T. for 1 minute /mm	oil or hot bath, 500 - 550 °C	52

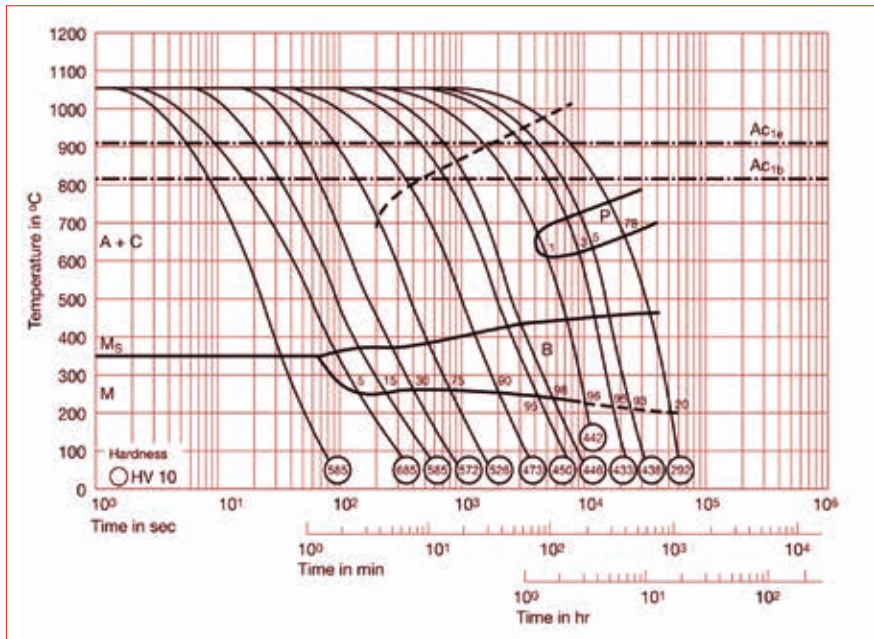
Tempering °C	100	200	300	400	500	550	600	650	700
HRC	51	50	50	50	52	50	47	40	34





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7 C.C.T. Curve



8 Tempering Curve

