1.2080

Cold Work Tool Steel

TECHNICAL SHEET

1 Comparision Standards

W.Nr	DIN	JIS equivalent	AISI/SAE	AFNOR	BS	UNI
1.2080	X210Cr12	SKD1	D3	95MnWCr5	BD3	X205Cr12Ku

2 Chemical Composition

C	Si	Mn	P (max)	S (max)	Cr	Supply Condition	Supply Hardness (HB)
1.9-2.2	0.10-0.60	0.2-0.6	0.030	0.030	11.0-13.0	Annealed	240

3 Main Characteristics and Applications

1.2080 is a Ledeburitic steel with 12% chromium content, known for its exceptional wear resistance against both abrasive and adhesive wear due to its high carbide volume. It also features normal toughness, dimensional stability, and high compressive strength.

Applications:

- Punching Die
- Shear Blades
- Cold Work Toll
- Pressure Pads

4 Production Route

EAF - LF - VD - Forging / Rolling + Annealing

- Machining if Required

5 Physical Properties (Reference Values)

	20°C	100°C	250°C	350°C	500°C	600°C	700°C
Thermal expansion coefficient (10-6/K)	10.8	11.7	12.2	12.6	12.8	13.1	13.3
Thermal Conductivity (W/mk)	16.7	-	-	20.5	-	-	24.2

6 Heat Treatment

TREATMENT	TEMPERATURE	HOLDING TIME (HT)	COOLING	Hardness
Annealing	Heat to 800 - 840 °C	Min. H.T. for 2 minute /mm	Furnace	Max. 250
Stress relieving	Heat to 650 - 700 °C	Min. H.T. for 2 minute /mm	Furnace	-
Hardening	Heat to 930 - 960 and 950 - 980°C	Min. H.T. for 1 minute /mm	Oil Air (Up to 30 mm Thickness)	64

SANDEEP ENTERPRISES (A UNIT OF VISION VANIJYA LIMITED)
NCR | New Delhi | Mumbai
+91-9654956890, +91-11-43360000 | sales@sandeepenterprises.com
www.sandeepenterprises.com

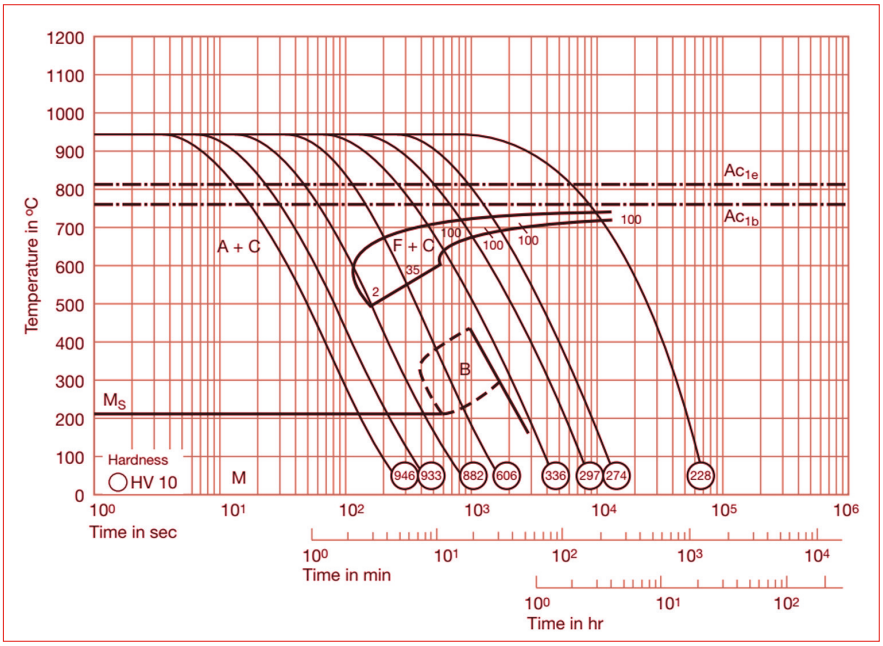
SandeepEnterprises STEEL SOLUTIONS

1.2080

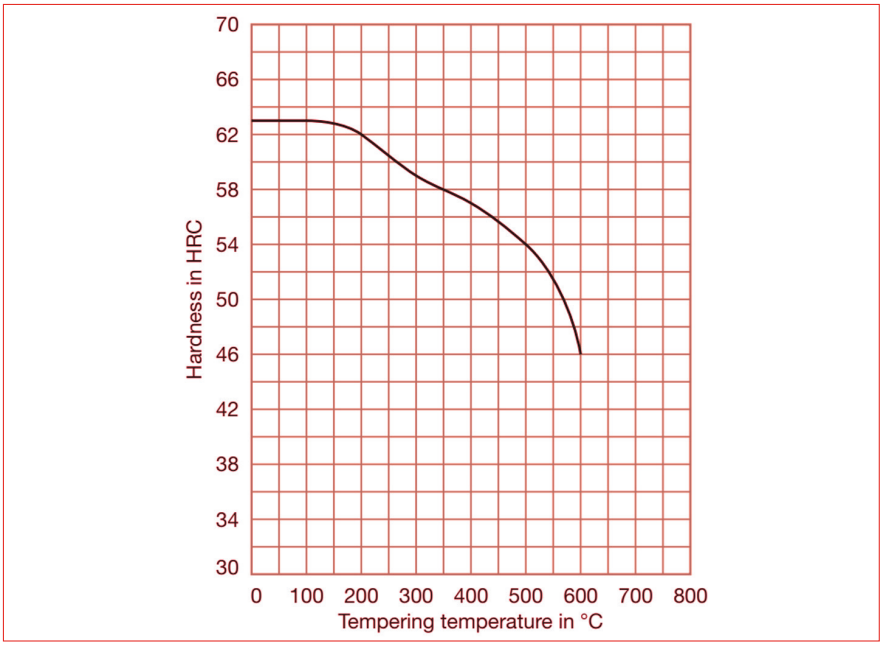
Cold Work Tool Steel

TECHNICAL SHEET

7 C.C.T. Curve



8 Tempering Curve



SANDEEP ENTERPRISES (A UNIT OF VISION VANIJYA LIMITED)
C-5 Phase-1, Ashok Vihar, New Delhi - 110052
+91-9654956890, +91-11-43360000 | sales@sandeepenterprises.com
www.sandeepenterprises.com

SandeepEnterprises STEEL SOLUTIONS