1.2510

Cold Work Tool Steel

TECHNICAL SHEET

1 Comparision Standards

W.Nr	DIN	JIS equivalent	AISI/SAE	AFNOR	BS	UNI
1.2510	100MnWCr4	SKS3	(O1)	95MnWCr5	-	-

2 Chemical Composition

C	Si	Mn	P (max)	S (max)	Cr	W	V	Supply Condition	Supply Hardness (HB)
0.90-1.05	0.15-0.35	1.00-1.20	0.035	0.035	0.50-0.70	0.50-0.70	0.05–0.15	Annealed	240

3 Main Characteristics and Applications

Medium-alloyed cold work tool steel 1.2510 offers excellent hardening capacity, high wear resistance, and remains dimensionally stable during heat treatment.

Applications:

- Tablet Dies
- Cutting and Punching Tools
- Shear Knives
- Thread Rolling Tools
- Measuring Tools
- Punches and Dies

4 Production Route

EAF - LF - VD - Forging - Heat treatment +A

5 Physical Properties (Reference Values)

	20°C	100°C	250°C	500°C
Thermal expansion coefficient (10-6/K)	11.4	11.7	12	12.7
Thermal Conductivity (W/mk)	29.9	30.1	31.7	31.2
Young modulus (Kn/mm2)	212	209	200	175

6 Heat Treatment

TREATMENT	TEMPERATURE	HOLDING TIME (HT)	COOLING	COMMENTS
Annealing	Heat to 700 - 720 °C	Min. H.T. for 2 minute /mm	Furnace to 600 °C than in air	
Stress relieving	Heat to 600 - 650 °C	Min. H.T. for 2 minute /mm	Air or Furnace	
Hardening	Heat to 790 - 820 °C	Min. H.T. for 1 minute /mm	Oil or pressure gas (vacuum)	

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

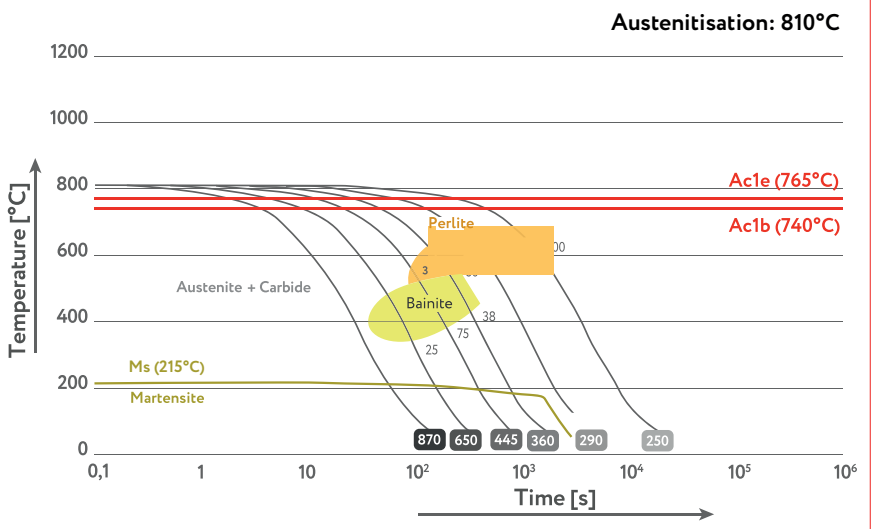
SandeepEnterprises STEEL SOLUTIONS

1.2510

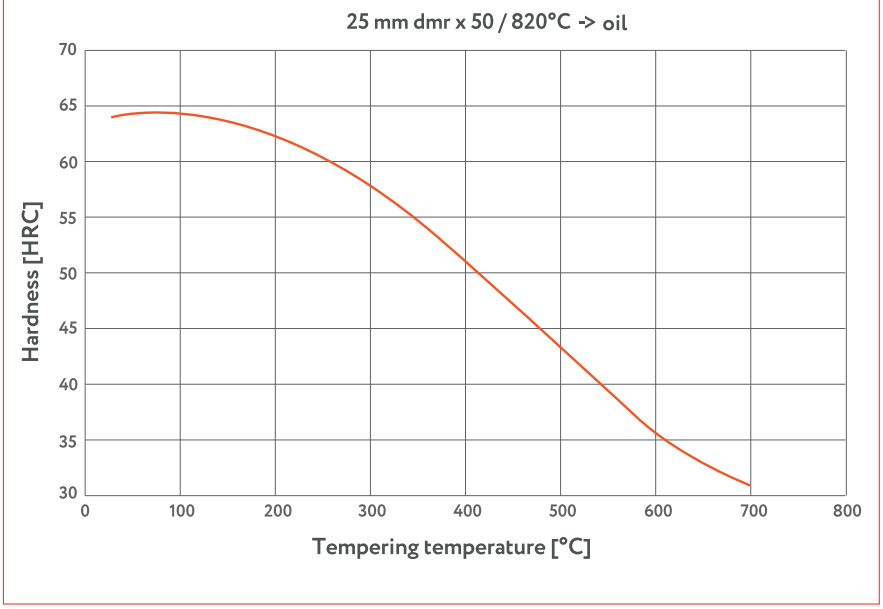
Cold Work Tool Steel

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