

DIN - Material - No.

Code

Comparable standards

Chemical composition

(Typical analysis %)

C	Si	Mn	Cr	Mo	V
1.00	1.10	0.30	8.00	2.30	0.30

Steel properties

High alloyed cold work tool steel. High hardness and wear resistance with good toughness.

Physical properties

Coefficient of linear thermal expansion

$10^{-6} \text{ }^{\circ}\text{C}^{-1}$	20-100	20-200	20-300	20-400	20-500	20-600	20-700	20-800 $^{\circ}\text{C}$
	11.2	12.3	12.9	13.2	13.4	13.7	13.8	14.0

Applications

Cutting dies, thread rolling tools, reamers, shearing blades, rolls for cold rolling.

Stress Relieving

Holding at approx 650 $^{\circ}\text{C}$ for one hour.

Heat treatment

Soft annealing °C		Cooling					Hardness HB				
820 - 860		furnace					max. 250				
Hardening from °C		in					Hardness after quenching HRC				
1040 - 1080		oil, air					min. 60				
Tempering	°C	200	300	400	500	520	540	560	580	600	
	HRC	60	58	59	62	62	61	58	53	50	

Time - Temperature - Transformation - Diagram

Tempering Diagram

