



DIN - Material - No. 1.4125
Code X105CrMo17
Comparable standards AISI: 440C

Chemical composition	C	Si	Mn	Cr	Mo
(Typical analysis %)	1.08	Max 1.0	Max 1.0	17.00	0.60

Steel properties Hardenable stainless tool steel. High wear resistance.

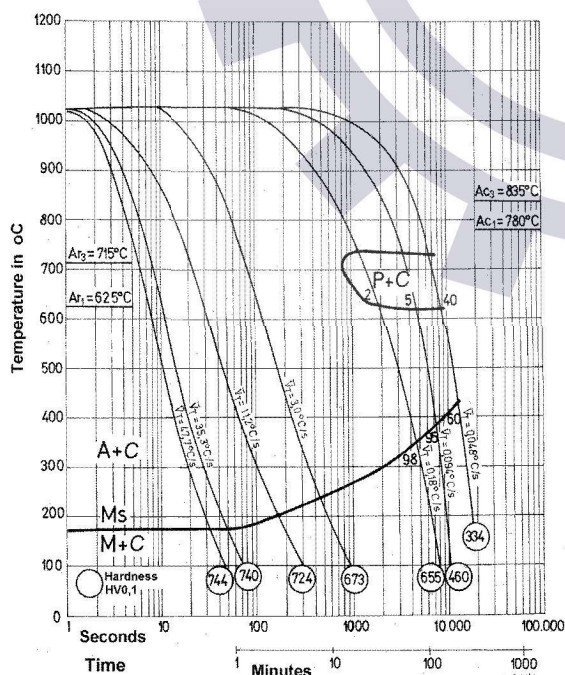
Physical properties	Thermal conductivity W/(m.K)		$\frac{20^{\circ}\text{C}}{15}$					
	Density g/cm ³		$\frac{20^{\circ}\text{C}}{7.7}$					
	Coefficient of linear thermal expansion							
	$10^{-6} \text{ }^{\circ}\text{C}^{-1}$	20-100	20-200	20-300	20-400	20-500	20-600	20-700°C
		9.8	10.8	11.4	11.7	12.0	12.2	12.4

Applications High quality cutting components, surgical instruments, small stainless ball bearings, cutlery valve components.

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

Heat treatment	Soft annealing°C		Cooling					Hardness HB	
	820 - 860		furnace					max. 269	
	Hardening from°C		in					Hardness after quenching HRC	
	1000 - 1050		oil,					min. 58	
	Tempering	°C	100	200	300	400	500	600	700
	HRC	59	57	54	55	55	39	31	

Time - Temperature - Transformation - Diagram



Tempering Diagram

