

DIN - Material - No.	1.2419
Code	105WCr6
Comparable standards	EU: 107WCr5

Chemical composition	C	Si	Mn	Cr	W
(Typical analysis %)	1.05	0.25	0.95	1.0	1.15

Steel properties	Dimensional stability at heat treatment. Good cutting properties. Good toughness.
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Physical properties	Thermal conductivity W/(m.K)						$\frac{20^{\circ}\text{C}}{30}$	
	Density g/cm ³						$\frac{20^{\circ}\text{C}}{7.85}$	
	Coefficient of linear thermal expansion							
	10 ⁻⁶ °C ⁻¹	20-100	20-200	20-300	20-400	20-500	20-600	20-700
		12.6	13.3	13.8	14.2	14.6	15.0	15.3

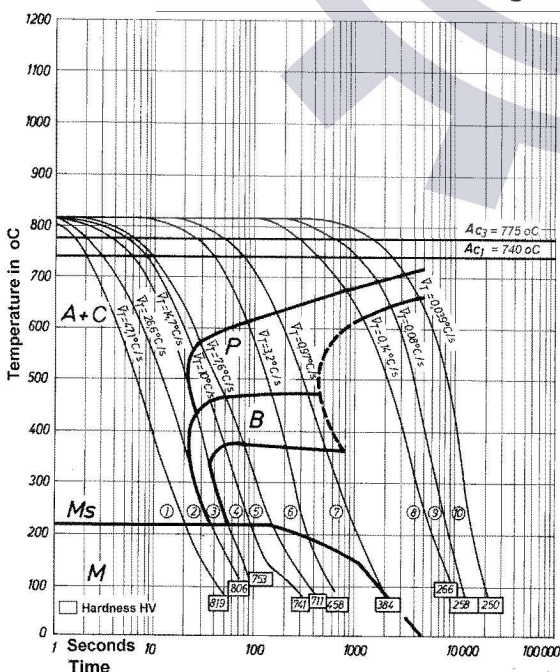
Applications	Tools for stamping sheets up to 5 mm thickness. Thread cutting and measuring tools, small bending and drawing tools, reamers. Machine blades for wood, paper and metal processing industry, woodworking tools.
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Stress Relieving	Holding at approx 650°C for one - two hour.
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Heat treatment

Soft annealing°C	Cooling	Hardness HB					
720 - 750	furnace	max. 230					
Hardening from°C	in	Hardness after quenching HRC					
800 - 830	oil, thermal bath ca. 200°C	63 - 65					
Tempering °C	100	200	300	400	500	600	650
HRC	64	61	58	54	49	41	30

Time - Temperature - Transformation - Diagram



Tempering Diagram

