

DIN - Material - No. 1.2631
Code X50CrMoW9-1-1

Comparable standards

Chemical composition	C	Si	Mn	Cr	Mo	W
(Typical analysis %)	0.50	0.90	0.50	8.50	1.20	1.20

Steel properties High toughness and resistance to dynamic loading.

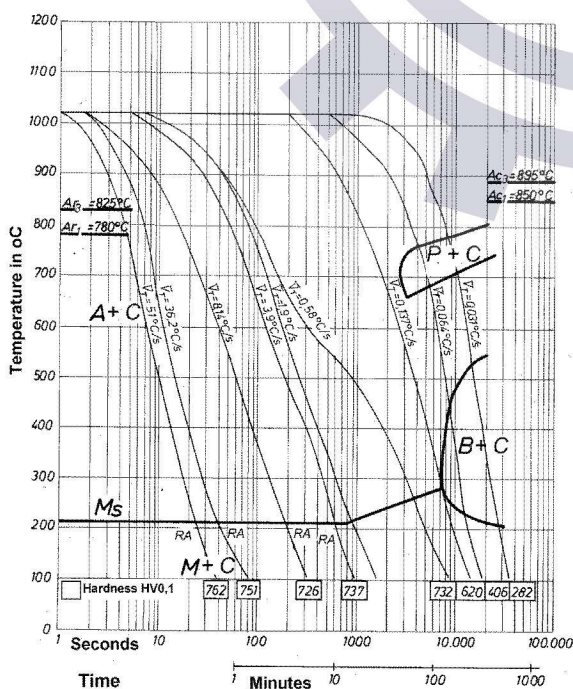
Physical properties	Thermal conductivity W/(m.K)	20°C
		26
	Density g/cm ³	20°C
		7.80
	Coefficient of linear thermal expansion	
	10 ⁻⁶ °C ⁻¹	20-100 20-200 20-300 20-400 20-500 20-600 20-700 20-800°C
		9.8 10.2 10.5 11.3 11.9 12.4 12.8 13.0

Applications Severely stressed machine blades for cellulose and paper ind., woodworking milling cutters, flat and circular blades for cutting 5 to 15 mm thick sheet/plate.

Stress Relieving Holding at approx 650°C for one hour.

Heat treatment	Soft annealing °C	Cooling	Hardness HB
	820 - 870	furnace	max. 250
	Hardening from °C	in	Hardness after quenching HRC
	1020 - 1050	oil, air, thermal bath approx. 400°C	61
	Tempering °C	100 200 300 400 500 525 550 575 600 700	
	HRC	60 57 56 56 59 59 53 48 43 33	

Time - Temperature - Transformation - Diagram



Tempering Diagram

