



DIN - Material - No.	1.7225
Code	42 CrMo 4
Comparable standards	AISI: 4142

Chemical composition	C	Si	Mn	Cr	Mo
(Typical analysis %)	0.41	0.20	0.75	1.05	1.23

Steel properties	This is one of the chromium, molybdenum, manganese low alloy steels noted for toughness, good torsional strength and good fatigue strength.
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Physical properties	Thermal conductivity W/(m.K)	20°C 25
	Density g/cm ³	20°C 7.7
	Coefficient of linear thermal expansion	
	10 ⁻⁶ °C ⁻¹	20-100 20-200 20-300 20-400 20-500 20-600 20-700 °C
		11.2 11.5 11.7 11.9 12.0 12.1 12.0

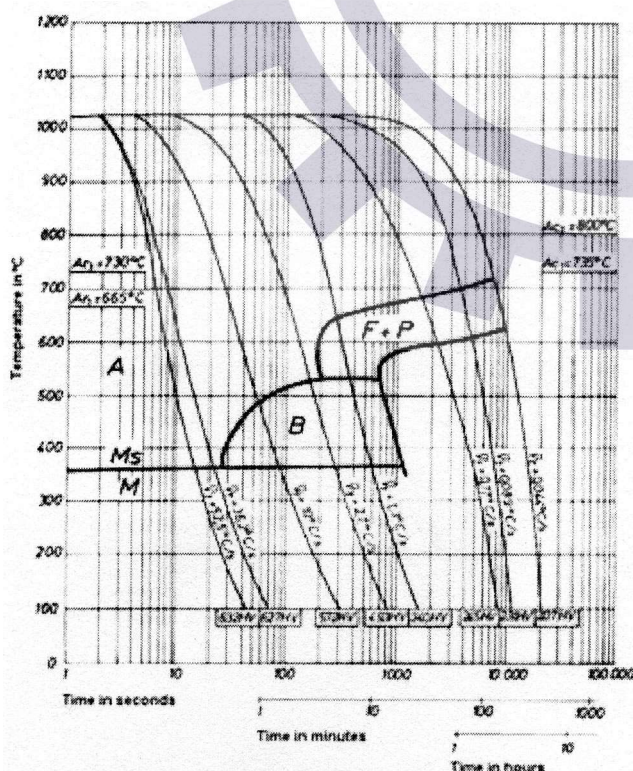
Applications	Statically & dynamically stressed components for vehicles, engines & machines. For parts of larger cross-sections, crankshafts, gears.
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Heat treatment	Soft annealing°C	Cooling	Hardness HB
	680 - 720	furnace	max. 241
	Hardening from°C	in	Hardness after quenching
	820 - 850	oil, air	ca. 47 HRC (ca. 1530 N/mm ²)

Time - Temperature - Transformation - Diagram

Tempering Diagram

To see next page



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