


Quality	100Cr6					
According to standards	EN ISO 683-17: 2012					
Number	1.3505 B1					
						
Chemical composition						
C%	Si%	Mn%	P%	S%	Cr%	
max			max	max	max	
0.93-1.05	0.15-0.35	0.25-0.45	0.025	0.015	1.35-1.60	
	Mo%	Al%	Cu%			
	max	max	max			
	0.1	0.05	0.3			
Temperature °C						
Hot-forming	Quenching	Tempering	Stress-relieving	Isothermal annealing +I		
1050-900	heating up to 600, pause, then 800-830 water	150-300 air	600-650 furnace cooling	800 rapid cooling to 720, pause, then air (HB max 220)		
Mechanical properties						
Table of tempering values obtained at room temperature after quenching at 840°C in oil						
HV 30	832	800	772	746	674	633
HRC	65	64	63	62	59	57
R N/mm2			2400	2500	2420	2300
Tempering at °C		100	150	200	250	300
Thermal Expansion	10 ⁻⁶ . K ⁻ⁱ		11.4	14.7		
Modulus of elasticity long.	GP a	210				
Modulus of elasticity tang.	GP a	80				
Poisson Number	v	0.3				
Specific heat capacity	J/(kg.K)	475				
Thermal conductivity	W/(m.K)	46.6				
Density	kg/dm3	7.81				
Specific electric resistivity	ohm.mm2/m	0.22				
	Siemens.m/m					
Electrical conductivity	m2	4.55				
°C		20	100	700		