

Quality 100Cr6  
 According to standards EN ISO 683-17:  
 Number 2012  
 1.3505 B1



**Chemical composition**

C% max	Si%	Mn%	P% max	S% max	Cr% max
0.93-1.05	0.15-0.35	0.25-0.45	0.025	0.015	1.35-1.60
Temperature $\ominus^{\circ}\text{C}$					
Mo% max		Al% max	Cu% max		
0.1		0.05	0.3		

Hot-forming	Quenching	Tempering	Stress-relieving	Isothermal annealing +I
1050-900	heating up to 600, pause, then 800-830	150-300	600-650 furnace cooling	800 rapid cooling to 720, pause, then air
	water	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/mm <sup>2</sup>			2400	2500	2420	2300
Tempering at $^{\circ}\text{C}$		100	150	200	250	300
<b>Thermal Expansion</b>	$10^{-6} \cdot \text{K}^{-1}$		11.4	14.7		
<b>Modulus of elasticity long.</b>	GP a	210				
<b>Modulus of elasticity tang.</b>	GP a	80				
<b>Poisson Number</b>	v	0.3				
<b>Specific heat capacity</b>	J/(kg.K)	475				
<b>Thermal conductivity</b>	W/(m.K)	46.6				
<b>Density</b>	kg/dm <sup>3</sup>	7.81				
<b>Specific electric resistivity</b>	ohm.mm <sup>2</sup> /m	0.22				
<b>Electrical conductivity</b>	Siemens.m/mm <sup>2</sup>	4.55				
$^{\circ}\text{C}$		20	100	700		