

Quality 100CrMo7  
 According to standards EN ISO 683-17: 2012  
 Number 1.3537 B5



**Chemical composition**

C%	Si%	Mn%	P%	S%	Cr%
<b>max</b>			<b>max</b>	<b>max</b>	<b>max</b>
0.93-1.05	0.15-0.35	0.25-0.45	0.025	0.015	1.65-1.95
	Mo%	Al%	Cu%		
	<b>max</b>	<b>max</b>	<b>max</b>		
	0.15-0.30	0.050	0.30		

**Temperature °C**

Hot-forming	Quenching	Tempering	Stress-relieving	Soft Annealing
1100-850	850 oil or polymer, salt bath	150-220	600-650 furnace cooling	730 air
	500-550	air		(HB max 220)

**Mechanical properties**

**Table of tempering values obtained at room temperature after quenching at 850°C in oil**

<b>HB</b>	739	739	722	670	615	595
<b>HRC</b>	65	65	64	61	58	57
<b>R N/mm2</b>			2000	2400	2430	2300
<b>Rp 0.2 N/mm2</b>			1800	2050	2150	2090
<b>A</b>						
<b>Z</b>						
Tempering at °C	50	100	150	200		

<b>Thermal Expansion</b>	10 <sup>-6</sup> . K <sup>-1</sup>				12	
<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)	480				
<b>Density</b>	kg/dm3	7.8				
<b>Thermal Conductivity</b>	W/(m.K)	45				
<b>Specific electric resistivity</b>	ohm.mm2/m	0.22				
<b>Electrical conductivity</b>	Siemens.m/m2	4.54				
°C		20	100	200	300	

