

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 ²			2400	2500	2420	2300
Tempering at $^{\circ}\text{C}$		100	150	200	250	300
Thermal Expansion	$10^{-6} \cdot \text{K}^{-1}$		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/dm ³	7.81				
Specific electric resistivity	ohm.mm ² /m	0.22				
Electrical conductivity	Siemens.m/mm ²	4.55				
$^{\circ}\text{C}$		20	100	700		