

Quality 40CrMnMoS8-6-4  
 According to standards EN ISO 4957 : 2002  
 Number 1.2738



**Chemical composition**

C% max	Si%	Mn%	P% max	S% max	Cr% max	
0.35-0.45	0.20-0.40	1.30-1.60	0.035	0.035	1.80-2.10	
		Mo% max	Ni% max	V% max		
		0.15-0.25	0.90-1.20	-		

**Temperature ①°C**

Hot-forming	Quenching	Tempering	Stress-relieving	Soft annealing
1050-850	840-860	860-880	50° Under the temperature of tempering	710-740 furnace cooling max 20° h to 600, then air (HB max 235)
	oil or polymer	calm or forced air		

**Mechanical properties**

Tempering table values at room temperature on round of  $\varnothing$  25 mm after quenching at 860°C in oil

<b>HB</b>	512	512	504	482	475	468
<b>HRC</b>	52	52	51.5	50	49.5	49
<b>R N/mm2</b>	1880	1880	1850	1760	1730	1700
Tempering at °C	50	100	150	200	250	300
Kv +20 °C J						10
<b>Thermal Expansion</b>	$10^{-6} \cdot K^{-1}$		12.8	13	13.4	14.2
<b>Modulus of elasticity long.</b>	GP a	210			196	177
<b>Modulus of elasticity tang.</b>	GP a	81			75	68
<b>Specific heat capacity</b>	J/(kg.K)	460				
<b>Thermal conductivity</b>	W/(m.K)	32			31.1	30
<b>Density</b>	kg/dm3	7.83				
<b>Specific electric resistivity</b>	ohm.mm2/m	0.19				
<b>Electrical conductivity</b>	Siemens.m/mm2	5.26				
<b>°C</b>		20	100	200	250	500