

Quality  
According to standards  
Number

X37CrMoV5-1  
EN ISO 4957 : 2002  
1.2343



### Chemical composition

C%	Si%	Mn%	P%	S%	Cr%
<b>max</b> 0.33-0.41	0.80-1.20	0.25-0.50	<b>max</b> 0.030	<b>max</b> 0.020	<b>max</b> 4.80-5.50
	Mo%	Ni%	V%		
	<b>max</b> 1.10-1.50	<b>max</b> -	<b>max</b> 0.30-0.50		

### Temperature ▲°C

Hot-forming	Quenching	Tempering	Stress-relieving	Soft annealing
1050-900	heating up to 800, pause, then 1000-1040 oil, polymer, s.b. (HRC ~ 54)	immediately after quenching minimum 2 cycles	50° Under the temperature of tempering	800-810 furnace cooling max 25°/h to 600, then air (HB max 229)

### Mechanical properties

Tempering table after quenching at 1020°C in oil. Values on test  $\varnothing$  20 mm

<b>HB</b>	543	525	518	512	512	518
<b>HRC</b>	54	53	52.5	52	52	52.5
<b>R N/mm2</b>	2010	1950	1915	1880	1880	1880
Tempering at °C	50	100	150	200	250	300
Kv +20 °C J	16	16	16	18	20	20
<b>Thermal Expansion</b>	$10^{-6} \cdot K^{-1}$		12.2	12.5	12.9	13
<b>Modulus of elasticity long.</b>	GP a	215		183	176	165
<b>Modulus of elasticity tang.</b>	GP a	82		70	68	63
<b>R Hardened and tempered</b>	N/mm2	1600	1400	1300	1100	800
<b>Rp 0.2</b>	N/mm2	1450	1200	1100	900	600
<b>R Hardened and tempered</b>	N/mm2	1200	1120	1000	850	580
<b>Rp 0.2</b>	N/mm2	1060	900	800	650	420
<b>Specific heat capacity</b>	J/(kg.K)	460			550	590
<b>Thermal conductivity</b>	W/(m.K)	25			28.5	29.3
<b>Density</b>	kg/dm3	7.8			7.64	7.60
<b>Specific electric resistivity</b>	ohm.mm2/m	0.52			0.86	0.96
<b>Electrical conductivity</b>	Siemens.m/mm2	1.92			1.16	1.04
<b>°C</b>		20	300	400	500	600