Quality	X40CrMoV5-1
According to standards	EN ISO 4957 : 2002
Number	1.2344

ALOK INGOTS
steel re engineered
AN ISO 9001:2008 CERTIFIED COMPANY

Chemical composition

C% max	Si%	Mn%	P% max	S% max	Cr% max
0.35-0.42	0.80-1.20	0.25-0.50	0.03	0.02	4.80-5.50

Mo% max	Ni% max	V% max
1.20-1.50	-	0.85-1.15

Temperature ▲^{0}C

Hot-forming	Quenching	Tempering	Stress-relieving	Soft annealing
1050-900	heating up to 800, pause, then 1200-1080	immediately after quenching	600-650 furnace cooling to 350, then air	820 furnace cooling
	oil, polymer, s.b. (HRC ~ 55)	minimum 2 cycles		(HB max 229)

Mechanical properties

Tempering table after quenching at 1040^{0}C in oil. Values on ⌀ 20 mm						
HB	560	543	525	512	504	512
HRC	55	54	53	52	51.5	52
R N/mm2	2070	2010	1950	1880	1850	1880
Tempering at ^{0}C	50	100	150	200	250	300
Thermal Expansion	10^{-6}. K^{-i}	10.8	11.3	11.8	12.3	12.7
Modulus of elasticity long.	GP a	210	205		191	182
Modulus of elasticity tang.	GP a	80	78		73	69
R +QT	N/mm2	1600			1400	1300
Rp 0.2	N/mm2	1460			1200	1100
R +QT	N/mm2	1200			1120	1000
Rp 0.2	N/mm2	1060			900	800
Specific heat capacity	J/(kg.K)	461	479	499	517	536
Thermal conductivity	W/(m.K)	19.2	20.1	20.1	24	25.1
Density	kg/dm3	7.74				
Specific electric resistivity	ohm.mm2/m	0.543	0.638	0.705	0.782	0.868
Electrical conductivity	Siemens.m/mm2	1.84	1.57	1.42	1.28	1.15
^{0}C		20	100	200	300	400