Quality	**1.4404**
According to Standard	**EN 10088 - 1 : 2014**
Number	

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

Comparable Standards	**German**	**DIN**	**France AFNOR**	**Spain UNE**	**China GB**	**U.K. B.S.**	**Russia GOST**	**USA AISI - SAE**	**Japan JIS**
	X2CrNiMo17-12-2				022Cr17Ni12Mo2		03Ch17N13M2	316L	SUS 316L

Chemical Analysis	**C% max**	**Si% max**	**Mn% max**	**P% max**	**S% max**	**Cr%**	**N% max**	**Ni%**	**Mo% max**
	0.03	1.00	2.00	0.045	0.015	16.5-18.5	0.11	10.0-13.0	2.0-2.5

Hot Work and Heat Treatment Temperatures

Temperature °C

Melting Range	**Hot Forming**	**Soft Annealing +A**	**Solution Annealing**	**Sensitization**	**Stabilizing**	**Quenching**	**Tempering**	**Annealing**
1400-1380	1200-925	not suitable	not suitable	700-450	885 calm air	not suitable	not suitable	-

Mechanical Properties at Room Temperature

Heat Treated Materials EN 10088 - 3 : 2014

Size d/t	**mm**	Testing at Room Temperature (Longitudinal)								
		R	**Rp 0.2**	**A%**	**C%**	**Kv**	**HB**			
From	**To**	**N/mm2**	**N/mm2**	**min.**	**min.**	**J min.**	**max**			
	160	500-700	200	40		100	215			
160	250	500-700	200	30		60	215			

Bright Bars of Heat Treated Material EN 10088-3: 2014

Size d/t	**mm**	Testing at Room Temperature (Longitudinal)								
		R	**Rp 0.2**	**A%**	**Z%**	**Kv**	**HB**			
From	**To**	**N/mm2**	**N/mm2**	**min.**	**min.**	**J min.**	**max**			
	10	600-930	400	25						
10	16	580-930	380	25						
16	40	500-830	200	30		100				
40	63	500-830	200	30		100				
63	160	500-700	200	40		100				
160	250	500-700	200	30		60				

Effect of Cold-working (Hot rolled +RA +C)										
R	**N/mm2**	500	650	790	850	940	1030	1100	1200	
Rp 0.2	**N/mm2**	200	520	700	760	830	920	1000	1080	
A	**%**	55	30	14	12	10	9	8	8	
Reduction	**%**	0	10	20	30	40	50	60	70	

Magnetic	no
Machinability	high
Hardening	cold-drawn and other cold plastic deformatuions
Service temperature in air	continous service up to 850 ºC; intermittent service up to 800 ºC