Quality	**1.4105**
According to Standard	**EN 10088 - 1 : 2014**
Number	**1.6773**

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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**
	X6CrMoS17						430F	

Chemical Analysis	**C% max**	**Si% max**	**Mn% max**	**P% max**	**S% max**	**Cr%**	**Mo%**	**Ni%**
	0.08	1.50	1.50	0.04	0.15 - 0.35	16.0 - 18.0	0.20 - 0.60	

Hot Work and Heat Treatment Temperatures

Temperature °C

Melting Range	**Hot Forming**	**Soft Annealing +A**	**Isothermal Annealing +I**	**Normalising**	**Recrystallization**	**Quenching**	**Tempering**	**Annealing**
1500 - 1490	1150 - 815	850 - 750	not suitable	-	790 - 710 cooling to 300, then air	not suitable	not suitable	825-805 protectet atmosphere cooling 50-100°C/h to 400, then air
		air						

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.**
	100	430-630	250	20	-	-	200

Bright Bars of 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**
	10	530-780	330	7	-	-	-
10	16	500-780	310	7	-	-	-
16	40	430-730	250	12	-	-	-
40	63	430-730	250	12	-	-	-
63	100	430-630	250	20	-	-	-

Effect of Cold-working (Hot rolled +RA +C)

R	**N/mm2**	570	620	690	710	740	780	800	840	880
Rp 0.2	**N/mm2**	280	510	590	620	650	690	730	760	800
A	**%**	20	10	9	9	8	8	8	8	8
Reduction	**%**	0	10	20	30	50	60	60	70	75

Minimum values at high temperatures EN 10088-3: 2014

Rp 0.2	**N/mm2**	230	220	215	210	205	200	195	+A annealed material
Test at	°C	100	150	200	250	300	350	400	

Magnetic	yes
Machinability	high
Hardening	cold-drawn and other cold plastic deformatuions
Service temperature in air	continous service up to 810 °C; intermittent service up to 860 °C