

Quality 1.4310

According to Standard EN 10088 - 1 : 2014

Number



Comparable Standards	German DIN	France AFNOR	Spain UNE	China GB	U.K. B.S.	Russia GOST	USA AISI - SAE	Japan JIS
	X10CrNi18-8			1Cr17Ni7			301	SUS 302

Chemical Analysis	C% max	Si% max	Mn% max	P% max	S% max	Cr%	N% max	Ni%	Mo% max
	0.05 - 0.15	2.00	2.00	0.045	0.015	16.0-19.0	0.11	6.0-9.5	0.8

Hot Work and Heat Treatment Temperatures

Temperature °C

Melting Range	Hot Forming	Soft Annealing +A	Solution Annealing	Sensitization	Stabilizing	Quenching	Tempering	Annealing
1435-1400	1250-1150	not suitable	1120-1000 water	420-800	not necessary	not suitable	not suitable	-

Mechanical Properties at Room Temperature

Heat Treated Materials EN 10088 - 3 : 2014

Size d/t		Testing at Room Temperature (Longitudinal)							
From	To	R	Rp 0.2	A%	C%	Kv	HB		
	40	N/mm2	N/mm2	min.	min.	J min.	max		
		500-750	195	40			230		

Hot Formed (Hot Rolled) ASTM A 276-04

Size d/t		Testing at Room Temperature (Longitudinal)							
From	To	R	Rp 0.2	A%	Z%	Kv	HB		
	all	N/mm2	N/mm2	min.	min.	J min.	max		
		515	205	40	50				

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

R	N/mm2	620	820	1000	1200	1320	1440	1620	1780
Rp 0.2	N/mm2	300	580	730	880	1020	1180	1300	1460
A	%	46	22	14	10	9	9	9	9
Reduction	%	0	10	20	30	40	50	60	70

Magnetic no
 Machinability difficult
 Hardening cold-drawn and other cold plastic deformatuions
 Service temperature in air max 400 °C for cold plastic deformations and 780 °C for hot-formed products