

STEELS CLASSED		TYPICAL COMPOSITION					INTERNATIONAL DESIGNATIONS			MECHANICAL PROPERTIES AT 20°C -MINIMUM VALUES (Mpa)				CORROSION RESISTANCE				COLD FORMABILITY	WELDABILITY		
FAMILY	GRADE	C	Cr	Ni	Mo	OTHER	AISI	EN 10088 NUMBER	EN 10088 NAME	Rp 0.2 0.2 % YIELD	Rp 1 1 % YIELD	Rm TENSILE STRENGTH	A50 ELONGATION	GENERAL	PITTING	SCC	HEAT RESISTANCE				
FERRITIC	CHROMIUM	410 S	0.03	Jan 11	-0	-0	-0	410S	1,4	X6Cr13	250	-0	415	20	○	○	0	○	0	0	
		STR 12	0.02	11	0.5	-0	-0	-0	1,4003	X2CrNi12	320	340	450	20	○	○	0	○	++	++	
		409	0.01	Jan 10	-0	-0	Ti=0.2	409	1,4512	X2CrTi12	220	-0	400	30	○	○	0	○	+++	++	
		409 Li	0.01	11.5	-0	-0	Ti=0.2	409	1,4512	X2CrTi12	220	240	390	30	○	○	0	○	+++	++	
		430	0.05	16.3	-0	-0		430	1,4016	X6Cr17	270	-0	450	20	0	0	++	0	+++	0	
		430 Ti	0.02	16.5	-0	-0	Ti=0.35	-0	1,452	X2CrTi17	280	-0	450	24	0	++	++	0	0	+++	++
		439-439 M	0.02	16-18	-0	-0	Ti+Nb	439	1,451	X3CrTi17	280	-0	450	24	0	++	++	0	0	+++	++
		430 Nb	0.02	16.5	-0	-0	Nb=0.35	-0	1,4511	X3CrNb17	280	-0	450	24	0	0	++	0	0	++	++
		441 Li	0.02	18	-0	-0	Nb,Ti	-0	1,4509	X2CrTiNb18	260	-0	450	28	0	++	++	++	++	++	++
		434	0.04	17	-0	-0	-0	434	1,4113	X6CrMo17-1	370	-0	540	27	++					++	0
MARTENSITIC	CHROMIUM MOLYBDENUM	436 Li	0.02	18	-0	Dec 31	Ti, N	-0	1,4513	X2CrMoTi17-1	290	-0	450	27	++	++	++	0	+++	++	
		444	0.02	18	-0	Jan 01	N+Ti	-0	1,4521	X2CrMoTi18-2	300	-0	420	28	+++	+++	+++	0	+++	++	
AUSTENITIC	CHROMIUM NICKEL	420	0.45	13	-0	-0	-0	420	1,4034	X46Cr13	340	-0	600	24	0	0	0	0	○○○	○○○	
		420 J2	0.35	13	-0	-0	-0	420	1,4028	X30Cr13	300	-0	550	25	○	○	○	○	○	○	
		304	0.05	18.3	8.1	-0	-0	304	1,4301	X5CrNi18-10	235	265	550	45	++	++	○	++	++	+++	
		304 MS	0.05	18.3	8.6	-0	-0	304	1,4301	X5CrNi18-10	235	265	550	45	++	++	○	++	+++	+++	
		304 PS	0.05	18.3	9	-0	-0	304	1,4301	X5CrNi18-10	235	265	550	45	++	++	○	++	+++	+++	
		304L	0.03	18.3	10	-0	-0	304L	1,4306	X2CrNi19-11	235	265	520	45	++	++	○	++	+++	+++	
		301	0.08	17	7	-0	-0	301	1,431	X10CrNi18-8	250	290	600	40	0	0	○	++	++	++	
		301LN	0.025	Jan 16	6.7	-0	N=0.14	-0	1,4318	X2CrNi18-7	330	370	690	40	++	++	○	++	++	+++	
		321	0.05	Jan 16	9.2	-0	Ti=0.35	321	1,4541	X6CrNiTi18-10	245	275	540	45	++	++	○	++	++	+++	
		CHROMIUM NICKEL MOLYBDENUM	316	Dec 30	17	10.7	2.2	-0	316	1,4401	X5CrNiMo17-12-2	255	-0	550	45	+++	+++	○	0	++	+++
			316L	0.02	17	11.2	2.2	-0	316L	1,4404	X2CrNiMo17-12-2	255	-0	550	45	+++	+++	○	0	+++	+++
			316LT	0.02	17	11.2	2.2	S=0.015	316L	1,4404	X2CrNiMo17-12-2	255	-0	550	45	+++	+++	○	0	+++	+++
			316SLD	0.02	Jan 16	13	2.8	-0	316L	1,4435	X2CrNiMo18-14-3	255	-0	550	45	++++	++++	○	0	+++	+++
			316Ti	0.04	17	11	2.2	Ti=0.35	316Ti	1,4571	X6CrNiMoTi17-12-2	240	-0	540	40	+++	+++	○	0	++	+++
		HEAT RESISTANCE	304H	0.06	18.3	8.7	-0	N=0.10(max)	304H	1,4948	X6CrNi18-10	235	265	550	45	++		○	++	++	+++
			321H (*)	0.05	17.3	Jan 08	-0	Ti=0.35	321H	1,4878	X8CrNiTi18-10	210	230	500	40	++		○	++	++	++
			4828	0.05	19.3	11.2	-0	Si=2	-0	(1.4828)		230	260	550	35	0		○	+++	0	+++
			309S (*)	0.05	23	13.5	-0	-0	309S	1,4833	X12CrNi23-13	210	250	500	33	++		○	+++	0	+++
				310(*)	0.05	25	20	-0	Si=0.6	310S	(1.4845)	X8CrNi25-21	210	250	500	33	++		○	++++	0

* chemical composition and mechanical properties according to EN 10095

○ non applicable/not required ○ ○ ○ Difficult + acceptable resistance ++ Good +++ Excellent ++++ Designed to improve this property