



IUP JINDAL METALS AND ALLOYS LIMITED

TYPE OF STEE	GRADES & STANDARDS			CHEMICAL COMPOSITION										MECHANICAL PROPERTIES					
	Grade	Relevant Standard	Nomenclature	C %	Mn %	P %	S %	Si %	Cr %	Ni %	Mo %	N2 %	Cu %	Other Elements	Hard in VPN	TS in MPa	YS in MPa	% El.	Bend Test
AUSTENITIC STEEL	SS 301	ASTM240	301	0.15	2.00	0.045	0.030	1.00	16.00-18.00	6.00-8.00	-	0.10	-	-	217 Max	515 Min	205 Min	40 Min	NR
		EN-10088	X10CrNi18-8/1.4310	0.05-0.15	2.00	0.045	0.015	2.00	16.00-19.00	6.00-9.50	-	0.11	**	***	***	600-950	250 Min	40 Min	***
		IS-6911	301	0.15	2.00	0.045	0.030	1.00	16.00-18.00	6.00-8.00	-	***	-	-	218 Max	590 Min	220 Min	40 Min	NR
		JIS-4305	SUS-301	0.15	2.00	0.045	0.030	1.00	16.00-18.00	6.00-8.00	-	***	-	-	218 Max	520 Min	205 Min	40 Min	***
	SS 304	ASTM240	304	0.07	2.00	0.045	0.030	0.75	17.50-19.50	8.00-10.50	-	0.1	-	-	201 Max	515 Min	205 Min	40 Min	NR
		EN-10088	X5CrNi18-10/1.4301	0.07	2.00	0.045	0.015	1.00	17.50-19.50	8.00-10.50	-	0.1	-	-	***	540-750	230 Min	45 Min	***
		IS-6911	304 S1	0.08	2.00	0.045	0.030	1.00	17.50-20.00	8.00-10.00	-	***	-	-	198 Max	400 Min	200 Min	40 Min	NR
		JIS-4305	SUS-304	0.08	2.00	0.045	0.030	1.00	18.00-20.00	8.00-10.50	-	***	-	-	200 Max	520 Min	205 Min	40 Min	***
	SS 304L	ASTM240	304-L	0.03	2.00	0.045	0.030	0.75	17.50-19.50	8.00-12.00	-	0.1	-	-	201 Max	485 Min	170 Min	40 Min	NR
		EN-10088	X2CrNi18-9/1.4307	0.03	2.00	0.045	0.015	1.00	17.50-19.50	8.00-10.50	-	0.1	-	-	***	520-700	220 Min	45 Min	***
		IS-6911	304 S2	0.03	2.00	0.045	0.030	1.00	17.50-20.00	8.00-12.00	-	***	-	-	198 Max	440 Min	180 Min	40 Min	NR
		JIS-4305	SUS-304-L	0.03	2.00	0.045	0.030	1.00	18.00-20.00	9.00-13.00	-	***	-	-	200 Max	480 Min	175 Min	40 Min	***
	SS 316	ASTM240	316	0.08	2.00	0.045	0.030	0.75	16.00-18.00	10.00-14.00	2.00-3.00	0.1	-	-	217 Max	515 Min	205 Min	40 Min	NR
		EN-10088	X5CrNiMo17-12.2/1.4401	0.07	2.00	0.045	0.015	1.00	16.50-18.50	10.00-13.00	2.00-2.50	0.1	-	-	***	530-680	240 Min	40 Min	***
		IS-6911	316	0.08	2.00	0.045	0.030	1.00	16.00-18.00	10.00-14.00	2.00-3.00	***	-	-	198 Max	490 Min	210 Min	40 Min	NR
		JIS-4305	SUS-316	0.08	2.00	0.045	0.030	1.00	16.00-18.00	10.00-14.00	2.00-3.00	***	-	-	200 Max	520 Min	205 Min	40 Min	***
	SS 316-L	ASTM240	316-L	0.03	2.00	0.045	0.030	0.75	16.00-18.00	10.00-14.00	2.00-3.00	0.1	-	-	217 Max	485 Min	170 Min	40 Min	NR
		EN-10088	X2CrNiMo17-12.2/1.4404	0.03	2.00	0.045	0.015	1.00	16.50-18.50	10.00-13.00	2.00-2.50	0.1	-	-	***	530-680	240 Min	40 Min	***
		IS-6911	316-L	0.03	2.00	0.045	0.030	1.00	16.00-18.00	10.00-14.00	2.00-3.00	***	-	-	198 Max	440 Min	200 Min	40 Min	NR
		JIS-4305	SUS-316-L	0.03	2.00	0.045	0.030	1.00	16.00-18.00	12.00-15.00	2.00-3.00	***	-	-	200 Max	480 Min	175 Min	40 Min	***
SS 316-Ti	ASTM240	316 Ti	0.08	2.00	0.045	0.030	0.75	16.00-18.00	10.00-14.00	2.00-3.00	0.1	-	Ti 5X(C+N)min, 0.70 max	217 Max	515 Min	205 Min	40 Min	NR	
	EN-10088	X6CrNiTi17-12-2/1.4571	0.08	2.00	0.045	0.015	1.00	16.50-18.50	10.50-13.50	2.00-2.50	0.1	-	Ti 5X(C+N)min, 0.70 max	***	540-690	240 Min	40 Min	***	
	IS-6911	316-Ti	0.08	2.00	0.045	0.030	1.00	16.00-18.00	10.00-14.00	2.00-3.00	***	-	Ti 5X(C+N)min, 0.80 max	198 Max	490 Min	220 Min	35 Min	NR	
	JIS-4305	SUS-316-Ti	0.08	2.00	0.045	0.030	1.00	16.00-18.00	10.00-14.00	2.00-3.00	***	-	Ti 5X(C+N)min	200 Max	520 Min	205 Min	40 Min	***	
SS 321	ASTM240	321	0.08	2.00	0.045	0.030	0.75	17.00-19.00	9.00-12.00	-	0.1	-	Ti 5X(C+N)min, 0.70 max	217 Max	515 Min	205 Min	40 Min	NR	
	EN-10088	X6CrNiTi18-10/1.4541	0.08	2.00	0.045	0.015	1.00	17.00-19.00	9.00-12.00	*	***	-	Ti 5X(C+N)min, 0.70 max	***	520-720	220 Min	40 Min	***	
	IS-6911	321	0.08	2.00	0.045	0.030	1.00	17.00-19.00	9.00-12.00	-	***	-	Ti 5X(C+N)min, 0.80 max	198 Max	490 Min	210 Min	35 Min	NR	
	JIS-4305	SUS-321	0.08	2.00	0.045	0.030	1.00	17.00-19.00	9.00-13.00	-	***	-	Ti 5X(C+N)min	200 Max	520 Min	205 Min	40 Min	***	
LOW Ni AUSTENITIC STEEL	SS 202	JSL STD.	JSLAUS/J-1	0.08	6.00-8.00	0.070	0.010	0.75	16.00-18.00	4.00-6.00	-	0.1	1.50-2.00	-	222 Max	550 Min	205 Min	40 Min	***
		ASTM240	202	0.08	3.00-5.00	0.045	0.030	1.00	17.00-18.00	4.00-6.00	-	0.05-0.20	2.00-3.00	-	201 Max	515 Min	205 Min	40 Min	NR
		EN-10088	X12CrMnNi18-9-5/1.4373	0.15	7.50-10.50	0.045	0.015	1.00	17.00-19.00	4.00-6.00	-	0.05-0.20	***	-	241 Max	680-880	340 Min	45 Min	***
	SS 201	JSL STD.	JSLAUS/J-1	0.08	6.00-8.00	0.070	0.010	0.75	16.00-18.00	4.00-6.00	-	0.1	1.50-2.00	-	222 Max	550 Min	205 Min	40 Min	***
		ASTM240	201	0.15	5.50-7.50	0.060	0.010	0.75	16.00-18.00	3.50-5.50	-	0.25	0.0	-	223 Max	515 Min	260 Min	40 Min	***
		EN-10088	X12CrMnNi17-7-5/1.4372	0.15	5.50-7.50	0.045	0.030	1.00	16.00-18.00	3.50-5.50	-	0.02-0.25	***	-	241 Max	750-950	350 Min	45 Min	***
	JSL AUS	JSL STD.	JSLAUS/J-1	0.08	6.00-8.00	0.070	0.010	0.75	16.00-18.00	4.00-6.00	-	0.1	1.50-2.00	-	222 Max	550 Min	205 Min	40 Min	***
	J-4	JSL STD.	J-4	0.1	8.50-10.00	0.080	0.010	0.75	15.00-16.00	1.00-2.00	-	0.2	1.50-2.00	-	243 Max	650 Min	325 Min	40 Min	***
	N1	IS-6911	N1	0.12	8.5-10.5	0.080	0.030	0.75	14.50-16.00	1.00-2.00	-	0.08-0.20	1.50-2.50	-	248 Max	650 Min	345 Min	40 Min	***
	N2	IS-6911	N2	0.1	6.5-9.0	0.070	0.030	1.00	15.50-17.0	1.50-17.0	-	0.10-0.25	2.00-4.00	-	248 Max	650 Min	310 Min	40 Min	***
N3	IS-6911	N3	0.09	6.00-8.00	0.070	0.030	0.75	16.00-17.50	4.00-6.00	-	0.05-0.15	1.50-2.50	-	248 Max	600 Min	275 Min	40 Min	***	
JSL-USD	JSL STD.	JSL-USD	0.15	9.75-10.75	0.100	0.015	0.75	14.50-16.00	0.40-0.55	-	0.2	1.00-1.30	-	220-280	700 Min	350 Min	40 Min	***	
JSL-UDD	JSL STD.	JSL-UDD	0.15	9.75-10.75	0.100	0.015	0.75	14.75-16.25	0.50-0.60	-	0.2	1.90-2.20	-	220-280	700 Min	350 Min	40 Min	***	
FERRITIC STEEL	SS 409	ASTM240	S40910	0.03	1.00	0.040	0.020	1.00	10.50-11.70	0.5	-	0.03	-	Ti 6X(C+N)min, 0.50max	179 Max	380 Min	170 Min	20 Min	180
		EN-10088	X6CrTi12/1.4512	0.03	1.00	0.040	0.015	1.00	10.50-12.50	-	-	-	-	Ti 6X(C+N)min, 0.65max	180 Max	380-560	210 Min	25 Min	180
		IS-6911	409	0.03	1.00	0.040	0.020	1.00	10.50-11.70	0.5	-	0.03	-	Ti 6X(C+N)min, 0.50max	183 Max	380 Min	170 Min	20 Min	180
	SS 410-S	ASTM240	410-S	0.08	1.00	0.040	0.030	1.00	11.50-13.50	0.60	-	-	-	-	183 Max	415 Min	205 Min	22 Min	180
		EN-10088	X6Cr13/1.4000	0.08	1.00	0.040	0.015	1.00	12.00-14.00	***	-	-	-	-	183Max	400-600	250 Min	19 Min	***
		IS-6911	410S	0.08	1.00	0.040	0.030	1.00	11.50-13.50	0.60	-	-	-	-	183 Max	415 Min	205 Min	22 Min	180
	SS 430	ASTM240	430	0.12	1.00	0.040	0.030	1.00	16.00-18.00	0.75	-	-	-	-	183 Max	450 Min	205 Min	22 Min	180
EN-10088		X6Cr17/1.4016	0.08	1.00	0.040	0.015	1.00	16.00-18.00	***	-	-	-	-	***	450-600	260 Min	20 Min	***	
IS-6911		430	0.12	1.00	0.040	0.030	1.00	16.00-18.00	0.50	-	-	-	-	198 Max	440 Min	250 Min	18 Min	180	