

## Chemical Composition of Stainless Steel

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CHEMICAL COMPOSITION ( IN PERCENTAGE )										
Grade	C (Max)	Mn (Max)	P (Max)	S (Max)	Si (Max)	Cr	Ni	Mo	Nitrogen (Max)	Cu/ Others
301	0.15	2.00	0.045	0.030	1.00	16.00 - 18.00	6.00 - 8.00	-	0.10	-
304	0.08	2.00	0.045	0.030	0.75	18.00 - 20.00	8.00- 10.50	-	0.10	-
304L	0.030	2.00	0.045	0.030	0.75	18.00 - 20.00	8.00- 12.00	-	0.10	-
310S	0.08	2.00	0.045	0.030	1.50	24.00- 26.00	19.00 - 22.00	-	-	-
316	0.08	2.00	0.045	0.030	0.75	16.00 - 18.00	10.00 - 14.00	2.00 - 3.00	0.10	-
316L	0.030	2.00	0.045	0.030	0.75	16.00 - 18.00	10.00 - 14.00	2.00 - 3.00	0.10	-
317	0.08	2.00	0.045	0.030	0.75	18.00 - 20.00	11.00 - 14.00	3.00 - 4.00	0.10	-
317L	0.030	2.00	0.045	0.030	0.75	18.00 - 20.00	11.00 - 15.00	3.00 - 4.00	0.10	-
321	0.08	2.00	0.045	0.030	0.75	17.00 - 19.00	9.00 - 12.00	-	0.10	Ti5 ( C + N ) Min or 0.70 max
347	0.08	2.00	0.045	0.030	0.75	17.00 - 19.00	9.00 - 13.00	-	-	Cb= 10x ( C Min ) or 1.00 Max
409	0.08	1.00	0.040	0.010	1.00	10.50 - 11.75	0.50	-	-	Ti= 6x (C+ N ) Min or 0.70 Max
409M	0.03	0.81.2	0.030	0.030	0.40.75	11.00- 12.00	1.5 max.	-	-	Ti= 6x (C) Min or 0.70 Max
410S	0.08	1.00	0.040	0.030	1.00	11.50- 13.50	0.60	-	-	-
410	0.15	1.00	0.040	0.030	1.00	11.50-	0.75	-	-	-

						13.50				
420	0.35	0.50	0.035	0.015	0.50	12.00 - 13.00	0.20.3	-	-	-
430	0.12	1.00	0.040	0.030	1.00	16.00 - 18.00	0.75	-	-	-
JSL AUS	0.08	7.08.0	0.070	0.030	0.75	15.50 - 16.50	4.25 - 4.75	-	-	0.9 - 1.10
JS- 203	0.08	9.2510.25	0.070	0.030	0.75	14.25 - 15.25	2.25 - 2.75	-	-	1.60- 2.0
301M	0.10	4.55.5	0.060	0.030	0.75	14.50 - 15.50	6.0 - 7.0	-	-	1.70- 1.90
* Thickness of 1.27mm & below will have elongation of 20% min.										

**MECHANICAL PROPERTIES**

Grade	Tensile Strength Mpa, (Min)	Yield Strength Mpa, (Min)	%Age Elongation in 50mm gauge length min	Hardness (Max)	
				BHN	Rb
301	515	205	40	217	95
304	515	205	40	201	92
304L	485	170	40	201	92
310S	515	205	40	217	95
316	515	205	40	217	95
316L	485	170	40	217	95
317	515	205	35	217	95
317L	515	205	40	217	95
321	515	205	40	217	95
347	515	205	40	201	92
409	380	170	20	179	88
409M	430	275	20	187	90
410S	415	205	22	183	89
410	450	205	20	217	89
420	700( max )	-	15	217	95
430	450	205	22	183	89
JSL AUS	515	205	40	217	95
JS- 203	515	205	40	217	95
301M	515	205	40	217	95

