



Chemical and physical properties

### Stainless Steel Chemical Composition & Mechanical Properties

#### Stainless Steel 200 Series

Grade	Chemical Composition of stainless steel 200									Mechanical Properties			
	C	Si	Mn	P	S	Ni	Cr	N	Cu	Y.S	T.S.	ELOG.	HRB
	%	%	%	%	%	%	%	%	%	N/mm2	N/mm2	%	
201 (1% Ni)	≤ 0.15	≤ 1.00	8~11	≤ 0.060	≤ 0.030	0.9~1.5	15~17	≤ 0.25	1.5~2	≥ 310	≥ 655	≥ 35	≤ 105
202 (4% Ni)	≤ 0.15	≤ 1.00	6~9	≤ 0.060	≤ 0.030	3.5~5	15~17	≤ 0.25	1.5~2	≥ 260	≥ 620	≥ 40	≤ 100

#### Stainless Steel 300 Series

Grade	Chemical Composition stainless steel 300								Mechanical Properties			
	C	Si	Mn	P	S	Ni	Cr	Mo	Y.S	T.S.	ELOG.	HRB
	%	%	%	%	%	%	%	%	N/mm2	N/mm2	%	
304	≤ 0.08	≤ 0.75	≤ 2	≤ 0.045	≤ 0.03	8~10	18~20		≥ 205	≥ 520	≥ 40	≤ 90
301	≤ 0.15	≤ 1.00	≤ 2	≤ 0.045	≤ 0.03	6~8	16~18		≥ 205	≥ 515	≥ 40	≤ 95
321	≤ 0.08	≤ 1.00	≤ 2	≤ 0.045	≤ 0.03	9~13	17~20		≥ 205	≥ 515	≥ 40	≤ 90
316	≤ 0.08	≤ 1.00	≤ 2	≤ 0.045	≤ 0.03	10~14	16~18	2~3	≥ 205	≥ 515	≥ 40	≤ 90
316L	≤ 0.03	≤ 1.00	≤ 2	≤ 0.045	≤ 0.03	12~15	16~18	2~3	≥ 170	≥ 480	≥ 40	≤ 95

The specification of type 301, 304, 316, 316L according with ASTM and JIS standard.

#### Stainless Steel 400 Series

Grade	Chemical Composition stainless steel 400									Mechanical Properties			
	C	Si	Mn	P	S	Ni	Cr	N	Cu	Y.S	T.S.	ELOG.	HRB
	%	%	%	%	%	%	%	%	%	N/mm2	N/mm2	%	
430	≤ 0.12	≤ 1.00	≤ 1	≤ 0.040	≤ 0.030		16~18			≥ 450	≥ 205	≥ 22	≤ 88

The specification of type 430 according with ASTM and JIS standard.