

## Chemical Composition of Stainless Steel Plates & Sheets

Standard & Grade		Chemical Composition (%)									
		C	Si	Mn	P	S	Ni	Cr	Mo	N	Others
ASTM A240	304	≤0.080	≤0.75	≤2.00	≤0.045	≤0.030	8.0~10.5	18.0~20.0	-	≤0.10	
	304L	≤0.030	≤0.75	≤2.00	≤0.045	≤0.030	8.0~12.0	18.0~20.0	-	≤0.10	
	316	≤0.080	≤0.75	≤2.00	≤0.045	≤0.030	10.0~14.0	16.0~18.0	2.0~3.0	≤0.10	
	316L	≤0.030	≤0.75	≤2.00	≤0.045	≤0.030	10.0~14.0	16.0~18.0	2.0~3.0	≤0.10	
	430	≤0.120	≤1.00	≤1.00	≤0.040	≤0.030	≤0.75	16.0~18.0	-	-	
	409	≤0.030	≤1.00	≤1.00	≤0.040	≤0.020	≤0.50	10.5~11.7	-	≤0.030	Ti: 6*(C+N)~0.5 Nb: 0.17 max.
	439	≤0.030	≤1.00	≤1.00	≤0.040	≤0.030	≤0.50	17.0~19.0	-	≤0.030	Ti: 0.2+4*(C+N)~1.1 Al: 0.15 max.
	S40977	≤0.030	≤1.00	≤1.50	≤0.040	≤0.015	0.30~1.00	10.5~12.5	-	≤0.030	
	S44100	≤0.030	≤1.00	≤1.00	≤0.040	≤0.030	≤1.00	17.5~19.5	-	≤0.030	Ti: 0.1~0.5 Nb: (0.3+9*C)~0.9
EN 10028-7 10088-2 10088-4	1.4301	≤0.070	≤1.00	≤2.00	≤0.045	≤0.015	8.0~10.5	17.5~19.5	-	≤0.10	
	1.4307	≤0.030	≤1.00	≤2.00	≤0.045	≤0.015	8.0~10.5	17.5~19.5	-	≤0.10	
	1.4401	≤0.070	≤1.00	≤2.00	≤0.045	≤0.015	10.0~13.0	16.5~18.5	2.0~2.5	≤0.10	
	1.4404	≤0.030	≤1.00	≤2.00	≤0.045	≤0.015	10.0~13.0	16.5~18.5	2.0~2.5	≤0.10	
	1.4003	≤0.030	≤1.00	≤1.50	≤0.040	≤0.015	0.30~1.00	10.5~12.5	-	≤0.03	
	1.4509	≤0.030	≤1.00	≤1.00	≤0.040	≤0.015	-	17.5~18.5	-	-	Ti: 0.10~0.60 Nb: (0.3+3*C)~1.0
EN 10088-2 10088-4	1.4016	≤0.080	≤1.00	≤1.00	≤0.040	≤0.015	-	16.0~18.0	-	-	
	1.4512	≤0.030	≤1.00	≤1.00	≤0.040	≤0.015	-	10.5~12.5	-	-	Ti: 6*(C+N)~0.65

### Comparison table of similar stainless steel types

Standard	304	304L	316	316L	409	430	439	441	-
ASTM	S30400	S30403	S31600	S31603	S40910	S43000	S43932	S44100	S40977
EN	1.4301	1.4307	1.4401	1.4404	1.4512	1.4016	-	1.4509	1.4003

### Calculating Formula for the Value of Mass

Grade	Basic Mass (kg / mm · m <sup>2</sup> )	Calculating Formula for the Value of Mass Single Plate (kg)
304 / 304L	7.93	kg = 7.93(kg / mm · m <sup>2</sup> ) x Thickness(mm) x Width(m) x Length(m)
316 / 316L	7.98	kg = 7.98(kg / mm · m <sup>2</sup> ) x Thickness(mm) x Width(m) x Length(m)
430	7.70	kg = 7.70(kg / mm · m <sup>2</sup> ) x Thickness(mm) x Width(m) x Length(m)