

Material and Grade Sheet

Material	ASTM	UNS	EN	Chemical Composition (%)										
				C	Mn	P	S	Si	Cr	Ni	Mo	N	Cu	Others
Stainless Steel														
Duplex	2205(F60/F51)	S32205/S31803	1.4462	0.03	2	0.03	0.02	1	21.0~23.0	4.5~6.50	2.50~3.50	0.08~0.20	...	...
	F55	S32760	1.4501	0.03	1	0.03	0.01	1	24.0~26.0	6~8	3.00~4.00	0.2~0.3	0.5~1.0	W:%Cr + 3.3x%Mo + 16x%N = 40min.
	2304	S32304	1.4362	2304	S32304	1.4362	0.03	2.5	0.04	0.04	1	21.5~24.5	3~5.5	0.05~0.6
Super Duplex	2507(F53)	S32750	1.4410	0.03	1.2	0.035	0.02	0.8	24.0~26.0	6.00~8.00	3.00~5.00	0.24~0.32	0.05	...
Super Austenitic	904L	N08904	1.4539	0.02	2	0.045	0.035	1	19.00~23.00	23.00~28.00	4.00~5.00	0.1	1.0~2.0	...
	F44(Mo6)	S31254	1.4547	0.02	1	0.03	0.01	1	19.5~20.5	17.5~18.5	6.00~6.50	0.18~0.22	0.5~1.0	...
Austenitic(General use)	304	S30400	1.4301	0.08	2	0.045	0.03	0.75	18.00~20.00	8.00~10.5	...	0.1	...	...
	304L	S30403	1.4306	0.03	2	0.045	0.03	0.75	18.00~20.00	8.00~12.00	...	0.1	...	...
	316	S31600	1.4401	0.08	2	0.045	0.03	0.75	16.00~18.00	10.00~14.00	2.00~3.00	0.1	...	...
	316L	S31603	1.4404	0.03	2	0.045	0.03	0.75	16.00~18.00	10.00~14.00	2.00~3.00	0.1	...	...
	316Lmod(724L)	S31653	1.4435	0.03	2	0.045	0.03	1	17.00~19.00	12.50~15.00	2.50~3.00	0.11	...	...
	317L	S31703	1.4438	0.03	2	0.045	0.03	0.75	18.00~20.00	11.00~15.00	3.00~4.00	0.1	...	...
	321	S32100	1.4541	0.08	2	0.045	0.03	0.75	17.00~19.00	9.00~12.00	...	0.1	...	Ti : 0.70 5x(C+N) min to 0.70 max
	347	S34700	1.455	0.08	2	0.045	0.03	0.75	17.00~19.00	9.00~13.00	...	...	...	Columbium + Tantalum: 10xC min to 1.00 max
	309S	S30908	1.4833	0.02	2	0.045	0.03	0.75	22.00 ~24.00	12.00 ~15.00	...	...	...	...
	310S	S31008	1.4845	0.08	2	0.045	0.03	1.5	24.00~26.00	19.00~22.00	...	...	...	...
Carbon Steel														
Carbon Steel	A 234 WPB			0.3	0.29-1.06	0.05	0.058	0.10-0.35	0.4	0.4	0.15		0.1	
	A105			0.35	0.60-1.05	0.035	0.04	0.10-0.35	0.3	0.4	0.12			
	A350LF2			0.3	0.60-1.35	0.035	0.04	0.15-0.30	0.3	0.4	0.12			
	A350LF3			0.2	0.9	0.035	0.04	0.20-0.35	0.3	3.3-3.7	0.12			
Low Alloy Steel	F1			0.28	0.06-0.90	0.045	0.045	0.15-0.35			0.44-0.65			
	F5			0.15	0.30-0.60	0.03	0.03	0.5	4.0-6.0	0.5	0.44-0.65			
	F9			0.15	0.30-0.60	0.03	0.03	0.50-1.10	8.0-10.0		0.90-1.10			
	F91			0.08-0.12	0.30-0.60	0.02	0.01	0.20-0.50	8.0-9.5	0.4	0.85-1.05			
	F92			0.07-0.13	0.30-0.60	0.02	0.01	0.5	8.50-9.50	0.4	0.30-0.60			
	F11			0.05-0.15	0.30-0.60	0.03	0.03	0.50-1.00	1.00-1.50		0.44-0.65			
	F12			0.05-0.15	0.30-0.60	0.045	0.045	0.5	0.80-1.25		0.44-0.65			
	F22			0.05-0.15	0.30-0.60	0.04	0.04	0.5	2.00-2.50		0.87-1.13			
	F23			0.04-0.10	0.10-0.60	0.03	0.01	0.5	1.92-2.60		0.05-0.30			
	SCM440			0.38-0.43	0.60-0.90	0.03	0.03	0.15-0.35	0.90-1.20	0.25	0.15-0.30			
SNM439			0.36-0.43	0.60-0.90	0.03	0.03	0.15-0.35	0.60-1.00	1.60-2.00	0.15-0.30				

NOTE: Composition – all values in weight percent, maximum levels unless a range is specified.