

Trade designation	ASME AWS Class.	SG	Pol.	Features	Chemical composition of rod and wire (%)										Mechanical properties of all-weld metal				
					C	Si	Mn	P	S	Ni	Cr	Mo	Cu	0.2%OS (MPa)	TS (MPa)	EL (%)	IV (J)		
TG-S308	A5.9 ER308	Ar	DC-EN	▪Suitable for 18%Cr-8%Ni stainless steel	Ex	0.05	0.46	1.89	0.024	0.001	9.69	20.00	0.05	0.07	Ex	410	580	42	-196℃ 39
					Gt	0.08	0.30~0.65	1.00~2.50	0.030	0.030	9.00~11.00	19.50~22.00	0.75	0.75					
TG-S308L	A5.9 ER308L	Ar	DC-EN	▪Suitable for low carbon 18%Cr-8%Ni stainless steel	Ex	0.013	0.43	1.86	0.023	0.002	9.95	19.85	0.05	0.07	Ex	420	590	45	-196℃ 78
					Gt	0.030	0.30~0.65	1.00~2.50	0.030	0.030	9.00~11.00	19.50~22.00	0.75	0.75					
TG-S309	A5.9 ER309	Ar	DC-EN	▪Suitable for dissimilar-metal joint and underlaying on ferritic steels for overlaying stainless steel weld metals	Ex	0.05	0.45	1.85	0.025	0.001	13.58	23.37	0.03	0.07	Ex	410	580	39	0℃ 150
					Gt	0.12	0.30~0.65	1.00~2.50	0.030	0.030	12.00~14.00	23.00~25.00	0.75	0.75					
TG-S309L	A5.9 ER309L	Ar	DC-EN	▪Suitable for dissimilar-metal joint and underlaying on ferritic steels for overlaying stainless steel weld metals	Ex	0.016	0.41	1.84	0.019	0.002	13.68	23.28	0.03	0.04	Ex	410	570	38	0℃ 110
					Gt	0.030	0.30~0.65	1.00~2.50	0.030	0.030	12.00~14.00	23.00~25.00	0.75	0.75					
TG-S309MoL	A5.9 ER309LMo	Ar	DC-EN	▪Suitable for dissimilar-metal joint and underlaying on ferritic steels for overlaying stainless steel weld metals	Ex	0.016	0.43	1.76	0.016	0.005	13.54	23.35	2.19	0.05	Ex	440	590	36	-
					Gt	0.030	0.30~0.65	1.00~2.50	0.030	0.030	12.00~14.00	23.00~25.00	2.00~3.00	0.75					
TG-S316	A5.9 ER316	Ar	DC-EN	▪Suitable for 18%Cr-12%Ni-2%Mo stainless steel	Ex	0.04	0.42	1.71	0.026	0.001	12.25	19.39	2.15	0.11	Ex	390	570	42	-196℃ 29
					Gt	0.08	0.30~0.65	1.00~2.50	0.030	0.030	11.00~14.00	18.00~20.00	2.00~3.00	0.75					
TG-S316L	A5.9 ER316L	Ar	DC-EN	▪Suitable for low carbon 18%Cr-12%Ni-2%Mo stainless steel	Ex	0.014	0.41	1.74	0.023	0.002	12.29	19.22	2.19	0.11	Ex	390	550	43	-196℃ 49
					Gt	0.030	0.30~0.65	1.00~2.50	0.030	0.030	11.00~14.00	18.00~20.00	2.00~3.00	0.75					

Note: Welding tests are as per AWS. Ex: Example, Gt: Guaranty

Approvals			
TG-S308	AB, NV, NK	TG-S309	NV, NK, GL
TG-S308L	AB, LR, NV, BV, NK, GL, CCS	TG-S316L	AB, LR, NV, BV, NK, GL, CCS

Diameter (mm)	
TG-S308	1.0, 1.2, 1.6, 2.0, 2.4, 3.2
TG-S308L	1.0, 1.2, 1.6, 2.0, 2.4, 3.2
TG-S309	1.0, 1.2, 1.6, 2.0, 2.4, 3.2
TG-S309L	1.0, 1.2, 1.6, 2.0, 2.4, 3.2
TG-S309MoL	1.2, 1.6, 2.0, 2.4, 3.2
TG-S316	1.0, 1.2, 1.6, 2.0, 2.4, 3.2
TG-S316L	1.0, 1.2, 1.6, 2.0, 2.4, 3.2