

Filler Rods and Wires

Product names	ASME AWS Class.	SG	Pol.	Features	Chemical			
					C	Si	Mn	
TG-S308	A5.9 ER308	Ar	DC-EN	▪ Suitable for 18%Cr-8%Ni steel	Ex	0.05	0.46	1.89
					Gt	≤0.08	0.30~0.65	1.00~2.50
TG-S308L	A5.9 ER308L	Ar	DC-EN	▪ Suitable for low carbon 18%Cr-8%Ni steel	Ex	0.013	0.43	1.86
					Gt	≤0.030	0.30~0.65	1.00~2.50
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
					Gt	≤0.12	0.30~0.65	1.00~2.50
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
					Gt	≤0.030	0.30~0.65	1.00~2.50
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
					Gt	≤0.030	0.30~0.65	1.00~2.50
TG-S316	A5.9 ER316	Ar	DC-EN	▪ Suitable for 18%Cr-12%Ni-2%Mo steel	Ex	0.04	0.42	1.71
					Gt	≤0.08	0.30~0.65	1.00~2.50

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

Approvals

TG-S308	ABS, DNV, NK	TG-S309	DNV, NK, GL
TG-S308L	ABS, LR, DNV, BV, NK, GL, CCS		

Identification color

Product names		Product names	
TG-S308	Yellow	TG-S309L	Yellow green
TG-S308L	Red	TG-S309MoL	Silver
TG-S309	Black	TG-S316	White

composition of rod and wire (%)						Mechanical properties of all-weld metal				
P	S	Ni	Cr	Mo	Cu	0.2%OS (MPa)	TS (MPa)	EL (%)	IV (J)	
0.024	0.001	9.69	20.00	0.05	0.07	Ex	410	580	42	-196°C: 39
≤0.030	≤0.030	9.00~ 11.00	19.50~ 22.00	≤0.75	≤0.75					
0.023	0.002	9.95	19.85	0.05	0.07	Ex	420	590	45	-196°C: 78
≤0.030	≤0.030	9.00~ 11.00	19.50~ 22.00	≤0.75	≤0.75					
0.025	0.001	13.58	23.37	0.03	0.07	Ex	410	580	39	0°C: 150
≤0.030	≤0.030	12.00~ 14.00	23.00~ 25.00	≤0.75	≤0.75					
0.019	0.002	13.68	23.28	0.03	0.04	Ex	410	570	38	0°C: 110
≤0.030	≤0.030	12.00~ 14.00	23.00~ 25.00	≤0.75	≤0.75					
0.016	0.005	13.54	23.35	2.19	0.05	Ex	440	590	36	-
≤0.030	≤0.030	12.00~ 14.00	23.00~ 25.00	2.00~ 3.00	≤0.75					
0.026	0.001	12.25	19.39	2.15	0.11	Ex	390	570	42	-196°C: 29
≤0.030	≤0.030	11.00~ 14.00	18.00~ 20.00	2.00~ 3.00	≤0.75					

Diameter (mm)

TG-S308	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-S308L	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-S309	1.0, 1.2, 1.6, 2.0, 2.4, 3.2	TG-S316	1.0, 1.2, 1.6, 2.0, 2.4, 3.2