

S-309L.16 [17]

TYPE : Rutile, Rutile-acid

AWS A5.4 / ASME SFA5.4 E309L-16
JIS Z3221 ES309L-16 | EN 1600 - E 23 12 L R

AWS A5.4 / ASME SFA5.4 E309L-17
JIS Z3221 ES309L-17 | EN 1600 - E 19 9 L R

Applications

Welding of 22%Cr-12%Ni steel Welding of dissimilar metals and build-up welding of stainless steel on carbon steel or low alloy steel.

Characteristics on Usage

S-309L.16 is a lime-titania type electrode and its usability is excellent.

As the all-weld metal contains extra low carbon and high content of delta ferrite, its corrosion and heat resistibility are also good.

S-309L.17 has a high moisture resistance and good porosity resistibility.

Notes on Usage

- ① Dry the electrodes at 350°C(662°F) for 60 minutes before use.
- ② In case of clad steel welding, pay attention to the degree of penetration into the base plate.
- ③ Keep the arc as short as possible.

Welding Position



1G 2F 3G 4G
(PA) (PB) (PF) (PE)

Current

AC or DC +

Typical Chemical Composition of All-Weld Metal (%)

Product Name	C	Si	Mn	P	S	Cr	Ni
S-309L.16	0.02	0.76	1.30	0.023	0.019	22.9	12.7
S-309L.17	0.02	0.72	1.38	0.020	0.019	23.1	12.8

Typical Mechanical Properties of All-Weld Metal

Product Name	TS MPa(lbs/in ²)	EL (%)
S-309L. 16	563 (81,800)	43.0
S-309L. 17	570 (82,800)	43.0

Approval

KR, ABS, LR, BV, DNV, NK, GL, CWB
TÜV, CE, DB, CCS (S-309L.16)
ABS (S-309L.17)

Packing

Packet 2.5 kg (5.5 lbs)
Carton 2.5 kg (5.5 lbs) × 4 : 10kg(22 lbs)
Carton 2.5 kg (5.5 lbs) × 4 : 10kg(22 lbs)

Sizes Available and Recommended Currents (Amp.)

Size mm (in)	2.0 (5/64)	2.6 (3/32)	3.2 (1/8)	4.0 (5/32)	5.0 (3/16)
Length mm(in)	300 (12)	300 (12)	350 (14)	350 (14)	350 (14)
F	25~55	50~85	70~115	95~150	135~180
V-up, OH	20~50	45~80	65~110	85~135	-