

S-309.16N

TYPE : Rutile

AWS A5.4 / ASME SFA5.4 E309-16
JIS Z3221 ES309-16
EN 1600 - E 23 12 R

SWAW

Applications

Welding of 22%Cr-12%Ni steel and heat resistant cast steel Clad steel side welding of 304.
Welding of stainless steel to carbon steel or low alloy steel.

Characteristics on Usage

S-309.16N is a lime-titania type electrode. As weld metal contains ferrite in austenitic structure, its crack resistibility is good. Furthermore, its heat and corrosion resistibility are also good because of much inclusion of alloying elements. Therefore, it is suitable for welding such dissimilar metal as carbon steel to stainless steel, as well as 22%Cr-12%Ni stainless steel.

Notes on Usage

- ① Dry the electrodes at 350°C(662°F) for 60 minutes before use.
- ② 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 (%)

C	Si	Mn	P	S	Cr	Ni
0.03	0.79	1.31	0.025	0.016	23.4	12.5

Typical Mechanical Properties of All-Weld Metal

TS MPa(lbs/in ²)	EL (%)
579 (84,100)	38.6

Approval

KR, ABS, DNV, LR

Packing

Packet 2.5 kg (5.5 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	-