

NC-309L, NC-309EL

For welding of extra-low carbon 22%Cr-12%Ni stainless steel

AWS A5.4 E309L-16
KS D 7014 E309L-16
JIS Z3221 ES309L-16

Applications

Welding of SUS 309S or SCS17. Under laying welding of build up welding of SUS304L to carbon steel or low alloy steel. Welding of dissimilar metals such as stainless steel to carbon steel or low alloy steel.

Characteristics

NC-309L and NC-309EL are lime-titania type electrodes for all-position welding, which has excellent usability. As weld metal contains ferrite in austenitic structure, its weldability is excellent and its ultra-low carbon weld metal as welded is excellent in corrosion resistibility and heat resistibility. NC-309L and NC-309EL are suitable for welding of parts which might be affected by the dilution of the mother plate. Especially, NC-309EL is superior to intergranular corrosion resistibility of NC-309L.

Notes on usage

- (1) Keep the arc as short as possible.
- (2) Weaving width should be within two and a half times of electrode's diameter.
- (3) When the electrodes have absorbed moisture, dry them at 250~300°C for 60~90 minutes before use.
- (4) Pay attention that the dilution of mother plate should be excessive.

Typical chemical composition of weld metal (%)

Product name	C	Mn	Si	P	S	Cr	Ni
NC-309L	0.030	1.30	0.75	0.021	0.007	23.80	12.90
NC-309EL	0.022	1.25	0.74	0.021	0.008	24.10	12.85

Typical mechanical properties of weld metal

Product name	TS N/mm ² (kgf/mm ²)	EL %
NC-309L	570(58)	42
NC-309EL	560(57)	43

Size & recommended current range (AC or DC +)

Dia. (mm)	2.0	2.6	3.2	4.0	5.0	
	L (mm)	250	300	350	350	350
Amp.	F	30-50	50-80	70-115	100-150	140-190
	V&OH	25-45	45-75	65-110	90-140	-

• Approval : ABS, DNV(NC-309L)

• Tip Color : NC-309L : Yellow-Green, NC-309EL : First : Yellow-Green, Second : Black