

# NC-309

For welding of 22%Cr-12%Ni stainless steel

AWS A5.4 E309-16  
KS D 7014 E309-16  
JIS Z3221 ES309-16

## Applications

Welding of SUS309S or SCS17.

Welding of dissimilar metals such as stainless steel to carbon steel or low alloy steel.

## Characteristics

NC-309 is a lime-titania type electrode for all-position welding, which has good usability. As weld metal contains ferrite in austenitic structure, its weldability is good and it provides good corrosion resistibility and good heat resistibility.

As weld metal contains much quantity of alloying elements and has stable austenitic structure, NC-309 is suitable for welding of the part which is affected by the dilution of mother plate.

## Notes on usage

- (1) Keep the arc as short as possible.
- (2) Weaving width should be within two and a half times of the 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 not be excessive.
- (5) Usually, preheat is not necessary.

## Typical chemical composition of weld metal (%)

C	Mn	Si	P	S	Cr	Ni
0.07	1.30	0.75	0.020	0.008	23.90	12.85

## Typical mechanical properties of weld metal

TS N/mm <sup>2</sup> (kgf/mm <sup>2</sup> )	EL %
590(60)	39

## 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, KR

• Tip Color : Black