

NC-312

For welding of dissimilar metals

AWS A5.4 E312-16
KS D 7014 E312-16
JIS Z3221 ES312-16

Applications

Welding of 29%Cr-9%Ni cast steel, dissimilar metals such as carbon steel or low alloy steel to austenitic stainless steel.

Welding of AISI (SUS) 304 clad steel.

Under laying build up of hardsurfacing.

Characteristics

NC-312 is a lime titania type electrode for all-position welding, depositing weld metal of 29% Cr-9%Ni. As the weld metal contains large quantity of ferrite, its crack resistibility is good. It is used for welding dissimilar metals and under laying welding of hardsurfacing.

Notes on usage

- (1) Choose the welding current as low as possible to prevent cracking of the weld metal.
- (2) When the electrodes have absorbed moisture, dry them at 250~300℃ for 60~90 minutes before use.
- (3) Weaving width should be within two and a half times of electrode's diameter.
- (4) It is necessary to preheat the plate at 200℃ and over in the case of welding of special steel such as high alloy tool steels.

Typical chemical composition of weld metal (%)

C	Mn	Si	P	S	Cr	Ni
0.09	1.55	0.38	0.023	0.007	29.10	9.50

Typical mechanical properties of weld metal

TS N/mm ² (kgf/mm ²)	EL %
760(77)	28

Size & recommended current range (AC or DC +)

Dia. (mm)	2.6	3.2	4.0	5.0	
	L (mm)	300	350	350	350
Amp.	F	50-85	70-105	95-145	135-180
	V&OH	45-80	65-110	85-135	-

• Tip Color : Orange