

## Fe-Ni Type Electrode on Cast Irons (TIG Welding)

# G N - 3 1 1 T

- Tip Color                      Yellow
- Application  
 Suitable for welding on a wide variety of cast iron which require hard chromium plating. Also suitable for underlaying of hardfacing, overlaying of cast iron molds and repairing and joining a wide variety of cast iron.
- Features
  1. GN-311T is electrode on cast iron for TIG welding. Its chemical components is 60% Fe-40% Ni
  2. To improve the plating performance after welding, Nickel content is held below 40%.
  3. Ni content in the deposited metal is low. Hence, compare to regular Fe-Ni type welding consumables, GN-311T is more suitable for overlaying on cast irons which require hardness. Also, surface treatment, such as hard chrome plating is easy.
  4. The mechanical property and crack resistance of the deposited metal is excellent.
- Welding Procedures
  1. In general, preheating and post heating are not required but depending upon the type, shape or size of the base metal, preheating at 100~200°C causes good welding result.
  2. To prevent crack at the welded junction between the base metal and the weld metal, shallow penetration in first layer using low electric current is recommended.

■ Typical Chemical Components of the Electrode (%)

C	Si	Mn	Ni	Nb+Ta	Fe
≤0.10	≤0.70	2.60~ 3.00	39.00~ 40.00	1.40~ 1.70	Others

■ Typical Hardness of the Deposited Metal as welded

HV	HRC	HS
240~270	20~25	34~38

■ Dimensions

Diameter (mm)	Length (mm)	Minimum Quantity (Kg)
1.6 2.0 2.6 3.2	1,000	5

Equivalent to electrode for shielded metal arc welding: GN-311  
 Equivalent to wire for MAG welding: GN-311S