

Covered Electrode on Cast Irons

G R I C A S T 1

- Standard JIS E C Ni-CI AWS ENi-CI
- Covering Graphite type
- Tip Color White
- Application

Joint welding of cast irons and repair welding of cavities and cracks on cast irons.
 Suitable for cold welding of the area which requires strength and machining.
 Can use for dissimilar welding such as cast iron and mild steel.

■ **Featur**

1. GRICAST1 is graphite type coating flux and pure nickel core wire covered electrode on cast irons. This achieves stable welding under the low electric current condition.
2. The welded part does not become too hard hence it shows good machinability and suitable for welding the place which is subjected to hydraulic pressure.
3. GRICAST1 has excellent workability. Also, it causes very few welding defects, such as blowhole and crack hence it shows excellent mechanical property and excellent X-ray soundness.
4. The deposited metal has excellent crack resistance due to less expansion and
5. The color tone of the deposited metal is white.

■ **Welding Procedures**

1. In general, preheating is not required but in case the base metal has a high risk of crack, preheating the base metal at 100~200°C is recommended.
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.
3. Just after welding, peening is required until the ripple pattern of the bead is removed.
4. The electrode should be re-dried 30~60 minutes at 100~150°C before use.

■ **Typical Chemical Composition of the Deposited Metal (%)**

C	Si	Mn	P	S	Fe	Ni
0.7	0.4	0.2	0.01	0.003	2.3	Remains

■ **Typical Mechanical Properties of the Deposited Metal as welded**

0.2%Offset Strength N/mm ² (Kgf/mm ²)	Tensile Strength N/mm ² (Kgf/mm ²)	Elongation %
237 (24.2)	382 (39.0)	14

■ **Typical Hardness of the Deposited Metal as welded**

HV	HRB	HS
135~170	73~84	20~25

■ **Appropriate Welding Current (AC or DCEP)**

Diameter (mm)	2.5	3.2	4.0	5.0
Length (mm)	300	350	400	450
Current (A)	50~80	70~100	90~150	120~180
Min. Quantity (Kg)	4.0	5.0	5.0	6.5

Equivalent to wire for MAG welding: GN-100S
 Equivalent to electrode for TIG welding: GN-100T