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Covered Electrode for Direct Overlaying on Cast Irons

G N － 8 0 K

■ Covering　Low Hydrogen Type
■ Tip Color　Red

■ Application
For repair welding and overlaying of various kinds of cast iron products.

■ Features
1. GN-80K is Fe base covered electrode for direct overlaying on cast iron. Also Fe base deposited metal mixes with the cast iron base metal smoothly.
2. The deposited metal shows excellent tensile strength and notch toughness. These characteristics are suitable for joint welding and repairing crack or defects of the cast iron base metal from which strength is required. Also it is suitable for underlaying of hardfacing on cast
3. The deposited metal shows almost same color tone as cast iron.

■ Welding Procedures
1. Apply back step welding or start welding from outside of target area to avoid blowhole at starting part.
2. In general, preheating is not required but depending upon the type, shape or size of the base metal, preheating at 100～200℃ causes good welding result.
3. To prevent crack at fusion zone between the base metal and weld metal, over dilution should be avoided by applying low electric current and keeping arc length short.
4. The electrode should be re-dried for about 1 hour at 300～400℃ before use.

■ Typical Chemical Component of Deposited Metal (%)

C	Si	Mn	P	S	Ni	Special Elements
0.07	0.55	1.50	≦0.015	≦0.010	1.90	0.5～1.5

■ Typical Mechanical Properties of the Deposited Metal as welded

Tensile Strength $N/mm^2(Kgf/mm^2)$	Elongation %	Impact Value(2V Notch, -20℃) J (Kgf･m)
810 (82.7)	26	96 (9.8)

■ Typical Hardness of the Deposited Metal as Welded

HV	HRB	HS
180～240	87～98	26～34

■ Appropriate Welding Current (AC or DCEP)

Diameter (mm)	3.2	4.0	5.0
Length (mm)	350	400	400
Current (A)	70～110	100～150	150～200
Min. Quantity (Kg)	5.0	5.0	5.0

Equivalent to wire for MAG welding: GN-80KS
Equivalent to electrode for TIG welding: GN-80KT