

Electrode for Direct Overlaying on Cast Irons (TIG Welding)

G N - 8 0 K T

■ Tip Color —

■ Application

Overlaying and repair welding of cavities and cracks in castings.

■ Features

1. GN-80KT is Fe base TIG electrode for direct overlaying on cast iron. Also Fe base deposited metal mixes with the cast iron base metal smoothly.
2. The weld 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 the cast iron.
3. The deposited metal shows almost same color tone as cast iron.

■ 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 to 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 applying low electric current and short arc is recommended.

■ Typical Chemical Components of the Electrode (%)

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°C) 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

■ 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-80K

Equivalent to wire for MAG welding: GN-80KS