

## Electrode for Direct Hardfacing on Cast Iron (TIG Welding)

# O M H - 5 T

■ Tip Color                      Green

■ Application

Hardfacing and edge preparation for a wide variety of cast iron molds.

■ Features

1. OMH-5T is TIG welding electrode for direct hardfacing. OMH-5T achieves direct hardfacing of all kinds of cast iron molds.
2. The weld metal is austenitized by absorbing carbon from base metal and shows better ductility and notch toughness in the first layer. The weld metal is formed by mixture of austenite and martensite in the second layer. As a result, the second layer has excellent abrasion resistance.
3. Triple pass two layers welding on C3~C5 groove achieves the most stable hardness, HRC50, for build-up welded cutter edge.

■ Welding Procedures

1. Preheating is not required but for dewatering and degreasing, proper preheating and interpass temperature, 100~150°C, welding is very efficient to prevent crack.
2. To prevent over dilution of the base metal, please use appropriate electric current and weld by stringer bead.
3. Each bead length should be between 80~120 mm. Every bead should be peening just after each bead is finished.
4. The weld metal of OMH-5T gains hardness by absorbing carbon from the base metal. Hence, multilayer welding should be avoided

■ Typical Chemical Components of the Electrode (%)

C	Si	Mn	Special Elements
0.06~0.12	0.5~1.0	3.4~4.1	8.0~10.0

■ Typical Hardness of the Weld Metal (as welded, FC300 base metal, triple pass two layers welding)

	HV	HRC	HS
1st Layer	300~400	30~40	42~55
2nd Layer	470~560	47~53	63~71

■ Dimensions

Diameter (mm)	Length (mm)	Minimum Quantity(kg)
1.2, 1.6, 2.0	1,000	5

Equivalent to electrode for shielded metal arc welding: MH-500S  
 Equivalent to wire for MAG welding: (MH-400S)