

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

# M H - 1 0 0 C T

### ■ Application

Overlaying on die face of cast irons mold and bead part.

### ■ Features

1. MH-100CT is TIG welding electrode for hardfacing. MH-100CT achieves direct overlaying on cast irons molds. The hardness of the deposited metal is lower than MH-400T.
2. The weld metal is austenitized by absorbing carbon from base metal and shows good notch toughness in the first layer. The weld metal is formed by 12%Cr and mixture of austenite and martensite in the second or upper layer. As a result, the second layer has excellent corrosion and abrasion resistance.
3. Main component of the deposited metal is martensite. Martensite has low thermal expansion. Hence spalling of the weld metal which is caused by welding stress during thick welding is suppressed.
4. MH-100CT is suitable for overlaying on the place which abrades vigorously and is subjected to intense contact pressure, such as a die face of drawing die and bead part.

### ■ Welding Procedures

1. Preheating is not required but preheating and keeping interpass temperature at 100~150°C for dewatering and degreasing are effective in preventing crack. Too high preheating temperature and interpass temperature increase the risk of crack because over penetration.
2. Keep bead length between 80~120mm and do peening just after each bead.
3. To prevent over dilution of the base metal, use appropriate electric current.

### ■ Typical Chemical Components of the Electrode (%)

C	Si	Mn	Cr	Special Elements
≤0.06	≤0.50	≤0.60	11.5~12.5	4.0~6.0

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

HV	HRC	HS
330~380	33~39	46~52

### ■ 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-100C  
 Equivalent to wire for MAG welding: MH-100CS