

## Covered Electrode for Direct Hardfacing on Cast Irons

**M H - 1 S**  
**M H - 2 S**

- Standard —
- Covering Low Hydrogen Type
- Tip Color MH-1S: Blue Green MH-2S: Vermillion
- Application  
Hardfacing and edge preparation on various kinds of cast iron molds.
- Feature
  1. MH-1S and MH-2S are the covered electrode for hardfacing. MH-1S and MH-2S achieve direct hardfacing on 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. The first layer hardness of MH-1S and MH-2S are controlled to about HRC45 and HRC50 respectively. These characteristics are suitable for underlaying for EA600W or GRIDUR61.
  4. The deposited metal shows excellent galling resistance and plating properties. These characteristics make it possible for MH-1S and MH-2S to use a press surface.
- Welding Procedure
  1. To keep heat input low, please observe appropriate welding current depending upon the core diameter strictly.
  2. Please do not preheat base metal and keep interpass temperature less or equal to 100°C.
  3. Please keep bead length between 80~120mm and do peening just after each bead is finished.
  4. Please keep arc length as short as possible and weld by stringer bead.
  5. Please apply back step welding or start welding from outside of target area to avoid blowhole at starting part.
  6. The electrode should be re-dried 30~60 minutes at over 300°C before use.

■ Typical Hardness of the Deposited Metal as welded

Product	Hardness	1 <sup>st</sup> Layer	2 <sup>nd</sup> Layer	3 <sup>rd</sup> layer
MH-1S	HV	450	470	510
	HRC	45	47	50
	HS	60	63	66
MH-2S	HV	510	390	340
	HRC	50	40	35
	HS	67	53	48

■ Appropriate Welding Current (AC or DCEP)

Diameter (mm)	2.6	3.2	4.0
Length (mm)	300	350	400
Current (A)	50~70	80~110	100~130
Minimum Quantity (Kg)	3.0	5.0	5.0

Equivalent to wire for MAG welding: MH-400S  
 Equivalent to electrode for TIG welding: OMH-5T