

Covered Electrode for Overlaying on Various Kinds of Molds

G R I D U R 6 1

- Standard —
- Covering Low Hydrogen Type
- Tip Color Purple
- Application

For overlaying of hot and cold cutting die. Suitable for welding on injection mold, punching mold, hot and cold shear blade, hot billet shear, blanking, mold for coin making, hot and cold deep draw forming die and rotary shear knife.

Hardfacing and repairing of mild steel, high carbon steel and tool steel, such as SKD11, SKD12, SKD61, SKS41 and SKT4.

■ Feature

1. The chemical component of GRIDUR61 designed to become similar with SKD61. The deposited metal is martensite structure basis. Also, carbide of Cr, Mo and W are added for improving abrasion resistance property.
2. It was seemingly impossible to repair hardening area and chipped part of hardfacing area in the past. GRIDUR61, however, makes it possible and shows excellent performance.
3. Hardness of the deposited metal reaches HRC57~59 as welded. The deposited metal also shows excellent abrasion resistance property from low to high temperature condition.

■ Welding Procedure

1. In general, preheating at 150°C or depending upon the material and size, preheating over 300°C is required. During welding, apply flat position as much as possible
2. For repairing quench hardening area or hardfacing area, desirable bead length is less than 50mm. Also desirable interpass temperature is over 300°C.
3. In case of welding on the high carbon content base metal, it is necessary to prevent increasing of carbon content of the weld metal. To do so, keep electric current low to suppress dilution from the base metal.

■ Typical Chemical Component of Deposited Metal (%)

C	Si	Mn	P	S	Cr	Special Elements
0.31	1.4	0.35	0.021	0.012	7.4	11

■ Typical Hardness of the Deposited Metal as welded

HV	HRC	HS
630~680	57~59	76~80

■ Appropriate Welding Current (AC or DCEP)

Diameter (mm)	3.2	4.0
Length (mm)	350	350
Current (A)	60~100	100~140
Minimum Quantity (Kg)	4.2	4.1

Equivalent to wire for MAG welding: MH-61S
 Equivalent to electrode for TIG welding: GRIDUR61T