

# Hardfacing SMAW Electrodes

## HARD 102

### Product Features:

- Deposit of Hard-102 is a medium chromium carbide-surfacing alloy.
- It has an all weld metal composition that are very similar to type H12 tool steel.
- It has excellent compressive strength and abrasion resistance, the weld metal are good for hot wear application up to 530°C.

### Applications:

- Hot and cold shear Blade, forging Die, Crane wheels, Hot work Extrusion Rolls.  
Can be used on carbon steel, low alloy steel or tool steel.

Typical chemical composition of all weld metal (wt%)

C	Si	Mn	Cr	Mo	W	V
0.29	1.05	1.1	6.80	1.30	1.20	0.20

Typical hardness of weld metal

As welded HRC	layers
55	3

Size (mm) & recommended welding parameters (A)

Diameter	3.2/350	4.0/400	5.0/450
Flat/ position	100~140	140~190	180~230

### Note:

- Electrode should be baking at 300~350°C for 60 minutes before use.
- The minimum heat input is required.
- Preheat and interpass temperature at 280~320°C on carbon steel at 500-540°C on a tool steel parts, at 500~590°C for roundabout welding.