### SMAW WELDING FOR HARD SURFACE WEAR RESISTANCE

#### **DESCRIPTION & APPLICATIONS:**

- ●SH-W is a low-hydrogen electric welding rod, and the dissolved gold component contains high tungsten (W) element.
- It produces tungsten carbide structure with high hardness, has excellent wear resistance, is suitable for places with slight impact but intense wear, is easy to produce cracks, and is not suitable for multi-layer welding.
- Suitable for bulldozer, drill top, concrete cutter, cutting blade, pump impeller blade, etc.

#### **NOTE ON USAGE:**

- Before welding, the weld should be dried at 300 ~ 350°C for 30 ~ 60 minutes. When in use, a small amount should be taken out and put into a drying cylinder at 100 ~ 150°C. The maximum amount of weld carried out should be the same day.
- ●The base metal is preheated at a temperature above 300°C, welded and subjected to post-heat treatment at 600°C.
- Avoid spalling of molten gold during multi-layer welding, and it is better to weld with cross hollow lattice.

## **WELDING POSITION:**





# TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):

С	Mn	Si	W
2.50	1.67	1.00	41.58

## TYPICAL MECHANICAL PROPERTIES OF WELD METAL:

Condition	Vicker's (HV)	Rockwell's (HRC)	Shores's (HS)
Layer temprature 150° Cunder	<i>7</i> 80	63	87
pile up welding	660	58	79

## SIZE AND RECOMMENDED CURRENT RANGE: AC or DC(+)

Diameter (mm)	3.2	4.0	5.0
Length (mm)	350	400	400
Current (Amp)	80-120	120-170	160-210