

## SMAW WELDING FOR HARD SURFACE WEAR RESISTANCE

### DESCRIPTION & APPLICATIONS :

- SH-50N4 belongs to titanium oxide low hydrogen electric welding rod. The dissolved gold component is Matian loose iron structure and contains nickel (Ni), molybdenum (Mo) and other elements.
- Strong toughness, excellent heat resistance, corrosion resistance and cracking resistance, great effect on resisting thermal fatigue cracking, and excellent wear resistance to reheating at high temperature.
- Applicable to water wheel blades, heat exchanger wings, eye masks, unpopular seats, etc.

### NOTE ON USAGE :

- Before welding, the weld should be dried at 150 ~ 200°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.
- It is suggested that the base metal should be preheated above 150 °C.
- Backing welding adopts low hydrogen welding material or Vosten iron stainless steel welding material.

### WELDING POSITION :



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

| C    | Mn   | Si   | Ni   | Cr    | Mo   |
|------|------|------|------|-------|------|
| 0.15 | 0.24 | 0.65 | 3.81 | 12.69 | 0.69 |

### TYPICAL MECHANICAL PROPERTIES OF WELD METAL :

| Condition                      | Vicker's (HV) | Rockwell's (HRC) | Shores's (HS) |
|--------------------------------|---------------|------------------|---------------|
| Layer temperature 150 °C under | 497           | 51               | 68            |

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

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