

SMAW WELDING FOR HARD SURFACE WEAR RESISTANCE

DESCRIPTION & APPLICATIONS :

- SH-80 is a low hydrogen electric welder with self-hardening Matian loose iron structure.
- It is most suitable for repairing and heap welding of mechanical parts with high wear resistance requirements, with excellent workability and welding slag peeling, and difficult machining.
- It is suitable for pump barrel, cutter, pump barrel vane, earth stacker and other parts.

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 200°C.
- Low hydrogen welding material is used for backing welding.

WELDING POSITION :



TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%) :

| C | Mn | Si | Cr | Mo |
|------|------|------|------|------|
| 0.59 | 1.12 | 1.00 | 9.20 | 0.60 |

TYPICAL MECHANICAL PROPERTIES OF WELD METAL :

| Condition | | Vicker's (HV) | | Rockwell's (HRC) | | Shores's (HS) | |
|--------------------------------|------------------|---------------|-----|------------------|-----|---------------|-----|
| Layer temperature 150 °C under | | 600 | | 55 | | 74 | |
| pile up welding | | 560 | | 53 | | 71 | |
| High temperature hardness | Temperature (°C) | 200 | 300 | 400 | 500 | 600 | 700 |
| | Vicker's (HV) | 520 | 480 | 430 | 420 | 210 | 95 |

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 |