

SAW WELDING FOR HARD SURFACE WEAR RESISTANCE

DESCRIPTION & APPLICATIONS :

- SFH-55S is a hard flux welding wire for submerged arc welding, which is matched with SF-80 alkaline welding flux. Due to the design proportion of the composition, the dissolved gold surface has excellent anti-adhesion wear and anti-weld mark characteristics, and can still maintain a certain hardness at high temperature.
- It is suitable for pinch rollers in iron and steel plants and other occasions that generally need to bear sliding wear between metals.

NOTE ON USAGE :

- The preheating temperature during welding is 200 ~ 250°C, and the interlayer temperature is controlled at 300 ~ 400°C.
- To avoid cracking, the workpiece should be slowly cooled and heat treated after welding.
- The heat treatment temperature after welding is recommended to be 520°C x6hr, the heating rate is 100°C/hr, and the cooling rate is 50 °C/hr to 300°C.
- When the weldability of the base metal is poor, it is suggested that SF-65/SW-M12K should be used as the buffer layer at the bottom layer, and SFH-31S/SF-80 should be applied as the second layer transition according to the actual welding layer thickness requirements.

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%) :

| C | Mn | Si | Ni | Cr | Mo | V |
|------|------|------|-----|------|------|------|
| 0.19 | 1.97 | 0.65 | 3.1 | 3.85 | 1.50 | 0.35 |

HARDNESS :

| Layers | 2 nd layer | 3 rd layer | 4 th layer |
|----------------|-----------------------|-----------------------|-----------------------|
| Hardness (HRC) | 47 | 49 | 51 |

SIZE AND RECOMMENDED CURRENT RANGE : DC(+)

| Diameter (mm) | Voltage (V) | Current (A) | Stickout (mm) |
|-----------------|-------------|-------------|---------------|
| 2.8 | 26-32 | 220-350 | 25-30 |
| 3.2 | 28-32 | 350-450 | 25-30 |