

# CLASSIFICATION

IS 814-04 : EB5626H3JX AWS/A 5.1 : E 7018- 1

#### CHARACTERISTICS

SUNTHERM 7018-1 is a low hydrogen iron powder electrode giving exceptionally tough and ductile welds. Metal recovery is approximately 115%. Typical hydrogen content in weld metal is 3.6ml/100 grams and also rovides high Impact strength at down to minus 46°C.

## APPLICATIONS

Pressure Vessels, Heavy and Rigid structure, Equipments require heavy impact at minus 46°C, Thick plates of Carbon Steel, Boilers.

## CHEMICAL ANALYSIS OF WELD METAL % (TYPICAL):

| Carbon | Manganese | Silicon | Sulphur | Phosphorus |
|--------|-----------|---------|---------|------------|
| 0.076  | 1.40      | 0.49    | 0.019   | 0.020      |

## **MECHANICAL PROPERTIES OF ALL WELD METAL (TYPICAL)**

| Yield Strength          | Ultimate Tensile<br>Strength | Elongation (GL=5d) | Reduction in Area | CVN Impact Values<br>at minus 46°C |
|-------------------------|------------------------------|--------------------|-------------------|------------------------------------|
| 468.0 N/mm <sup>2</sup> | 584.0 N/mm <sup>2</sup>      | 26.40%             | 69.6%             | 50 Joules avg                      |

## **PACKING DATA:**

| Size (mm) | Length (mm) | Current (Amp)<br>AC 70 V or DC (+) | Quantity of<br>Electrodes in a<br>Carton | Quantity of<br>Electrodes in a<br>Cardboard Box |
|-----------|-------------|------------------------------------|--|---|
| 2.50      | 350         | 60-90                              | 5 Kg                                     | 20 Kg   |
| 3.15      | 450         | 100-130                            | 5 Kg                                     | 20 Kg   |
| 4.00      | 450         | 140-180                            | 5 Kg                                     | 20 Kg   |
| 5.00      | 450         | 180-240                            | 5 Kg                                     | 20 Kg   |
| 6.30      | 450         | 240-300                            | 5 Kg                                     | 20 Kg   |

#### **RECOMMENDATIONS:**

Ready the electrodes at 350°C for one hour or at 250°C for two hours. Use short arc to get to optimum results.