# 

# Product: SPARK 7018-1

**Classification:** AWS/ASME SFA-5.1 E 7018-1

DIN 8529 E SY 42 76 M N B

EN499 E 42 6 B 42 H5

**Application/Properties:** Electrode for producing crack-free and tough welded joints with good toughness properties even on steels having carbon content up to 0.6%. Good operating characteristics also in positional welding. Weld metal exhibits good toughness properties down to -60 0C. Weld metal has very low hydrogen content and is resistant to ageing. Good gap bridging properties.

**Suitable for:**

Unalloyed structural steel: St33 to St52-3, St50-2 to St60-2.

Boiler Plates: HI, HII, 17Mn4

Pipe Steels: to St52.4, St35.8 to 17Mn4, StE210.7 to StE360.7 including corresponding TM-grades.

Fine Grain Structural Steels: StE255 to StE355, WStE255 to WStE355.

Shipbuilding Steels: A, B, D, E.

Cast Steel: GS-38 to GS-52.

**Rebaking** required at 250 – 350oC for two hours.

|  |  |  |  |
| --- | --- | --- | --- |
| **Sizes and Currents**  **AC or DC+:** | Diameter | Length | Current (A) |
| 2.5mm  3.2mm  4.0mm  5.0mm | 350mm  450mm  450mm  450mm | 70 - 100  90 - 140  140 - 190  190 - 250 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Weld metal analysis:**  Typical Values | C | Si | Mn |
| 0.06 | 0.30 | 1.45 |

|  |  |  |
| --- | --- | --- |
| **Mechanical properties**  **of all weld metal:**  Typical Values | Yield Strength | >420 N/mm2 |
| Tensile Strength | 500 - 640 N/mm2 |
| Elongation L.=5D. | >22% |
| Impact Strength | 200 J at +20oC  60 J at –60oC |

|  |  |  |
| --- | --- | --- |
| **Packaging:** | 2.6mm | 8x2.5kg.packet/carton |
| 3.2, 4.0 & 5.0mm | 4x5kg. packet/carton |
|  | 1 MT/pallet |