

## S3 NiMo-1

**CATEGORY** SAW Arc Submerged

**TYPE** Solid wire for submerged arc welding process for welding HSLA structural steels

**APPLICATIONS** Heavy construction, lifting, platforms, jackups, towers, crane building, machinery etc.

**PROPERTIES** High strength weld deposit with good impact properties down to -40°C. S3 NiMo1 can be used in combination with **FL 851** and **FL 155**, both fluxes offer low hydrogen content and excellent weldability in multi layer welding and narrow gap.

**CLASSIFICATION** AWS 5.23: EF3  
EN ISO 14171-A: S3Ni1Mo

**SUITABLE FOR** S550QL1, fine grain steels, X70, X80, AISI 4130, 4140, 8630, 25CrMo4, 42CrMo4, 1.7218, 1.7228

**APPROVALS** TUV (12523.00), CE approved

**WELDING POSITIONS:**



**WELD METAL ANALYSIS %**

| C    | Mn   | Si   | Mo   | Ni   |
|------|------|------|------|------|
| 0.12 | 1.75 | 0.20 | 0.55 | 0.90 |

**MECHANICAL PROPERTIES**

| Heat Treatment | R <sub>p0,2</sub><br>(N/mm <sup>2</sup> ) | R <sub>m</sub><br>(N/mm <sup>2</sup> ) | A <sub>5</sub><br>(%) | Impact Energy (J) ISO-V |       |       | Hardness<br>HRc / HV |
|----------------|---|--|-----------------------|-------------------------|-------|-------|----------------------|
|                |   |  |                       | -20°C                   | -40°C | -60°C |                      |
| AW             | 620                                       | 700                                    | 22                    |                         | 50    |       |                      |
| S              | 620                                       | 700                                    | 24                    |                         | 47    |       |                      |

AW: as welded , S: stress relieved

**WELDING PARAMETERS / PACKING**

| Welding Parameters | Welding Parameters | Packing       |                   |
|--------------------|--------------------|---------------|-------------------|
| D (mm)             | Current range (A)  | spooling type | kg / spool / drum |
| 2.0                | 200-500            | K-435 / Drums | 20-30 / 300       |
| 2,4                | 300-600            | K-435 / Drums | 20-30 / 300       |
| 3,2                | 350-700            | K-435 / Drums | 20-30 / 300       |
| 4,0                | 450-800            | K-435 / Drums | 20-30 / 300       |

**REDRYING TEMPERATURE** not required