



THE MOST RELIABLE WELDING®

# HOFFMAN ARC CO., LTD

## QUALITY CERTIFICATE OF WELDING CONSUMABLE

| Type  | Norm               | Brand Name | Part #  | Diameter       | Lot No.  | Manufactured Date | Date of Issue  |
|-------|--------------------|------------|---------|----------------|----------|-------------------|----------------|
| E7018 | AWS A5.1/A5.1M2012 | Sinnvoll   | 6001803 | 5/32" (4.0 mm) | 20-12046 | Shown on Package  | 2020 / 12 / 01 |

| Mechanical Properties of Deposited Metal                                     |                         |             |               | Chemical Composition of Deposited Metal (%)                                           |             |                 |                             |                                                                                       |               |           |
|------------------------------------------------------------------------------|-------------------------|-------------|---------------|---------------------------------------------------------------------------------------|-------------|-----------------|-----------------------------|---------------------------------------------------------------------------------------|---------------|-----------|
| Item                                                                         |                         | Requirement | Actual Result | Element                                                                               | Requirement | Actual Result   | Element                     | Requirement                                                                           | Actual Result |           |
| Yield Strength Rel(MPa)                                                      |                         | Min. 400    | 491           | C                                                                                     | Max. 0.15   | 0.071           | Mo                          | Max. 0.30                                                                             | 0.005         |           |
| Tensile Strength Rm(MPa)                                                     |                         | Min. 490    | 580           | Si                                                                                    | Max. 0.75   | 0.57            | V                           | Max. 0.08                                                                             | 0.009         |           |
| Elongation A5 (%)                                                            |                         | Min. 22     | 23.0          | Mn                                                                                    | Max. 1.60   | 1.37            | Cu                          | --                                                                                    | --            |           |
| Sharp V<br>noch                                                              | Impact Temp (°C)        | -30         | -30           | S                                                                                     | Max. 0.035  | 0.012           | A1                          | --                                                                                    | --            |           |
|                                                                              | Av. Absorbed Energy (J) | Min. 27     | 133 113 110   | P                                                                                     | Max. 0.035  | 0.011           | Ti                          | --                                                                                    | --            |           |
| X-Ray                                                                        |                         | I           | Complies      | Cr                                                                                    | Max. 0.20   | 0.017           | --                          | --                                                                                    | --            |           |
| Hydrogen Content (ml/130g)                                                   |                         | --          | --            | Ni                                                                                    | Min. 0.30   | 0.011           | Fillet weld test of T-Joint |                                                                                       | Complies      |           |
| Approved Classification Grade                                                |                         | CCS (--)    | LR (--)       | GL (--)                                                                               | NK (--)     | ABS (--)        | BV (--)                     | DNV (--)                                                                              | KR (--)       | RINA (--) |
| 10050 NW 116TH Way, Suite 15.<br>Medley, Florida 33178.<br>Telf: 305-4205099 |                         |             |               | This is to certify that the welding consumable conform with the standard              |             |                 |                             |                                                                                       |               |           |
|                                                                              |                         |             |               | Signature                                                                             |             | Inspection seal |                             |  |               |           |
|                                                                              |                         |             |               |  |             |                 |                             |                                                                                       |               |           |