



THE MOST RELIABLE WELDING®

# HOFFMAN ARC CO., LTD

## QUALITY CERTIFICATE OF WELDING CONSUMABLE

|                      |                                    |                               |                          |                                 |                           |                                              |                                        |
|----------------------|------------------------------------|-------------------------------|--------------------------|---------------------------------|---------------------------|----------------------------------------------|----------------------------------------|
| <b>Type</b><br>E7018 | <b>Norm</b><br>AWS A5.1/A5.1M-2004 | <b>Brand Name</b><br>Sinnvoll | <b>Part #</b><br>6001802 | <b>Diameter</b><br>1/8" (3.2mm) | <b>Lot No.</b><br>18-1292 | <b>Manufactured Date</b><br>Shown on Package | <b>Date of Issue</b><br>2018 / 11 / 09 |
|----------------------|------------------------------------|-------------------------------|--------------------------|---------------------------------|---------------------------|----------------------------------------------|----------------------------------------|

| 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    | 490                                         | C                                                                                     | Min. 0.15   | 0.067           | Mo      | Max. 0.3                                                                              | 0.0031        |           |
| Tensile Strength Rm(MPa)                                                     |                         | Min. 490    | 575                                         | Si                                                                                    | Min. 0.75   | 0.52            | V       | Max. 0.08                                                                             | 0.013         |           |
| Elongation A5 (%)                                                            |                         | Min. 22     | 26.5                                        | Mn                                                                                    | Min. 1.60   | 1.40            | Cu      | --                                                                                    | --            |           |
| Sharp V<br>noch                                                              | Impact Temp (°C)        | -30         | -30                                         | S                                                                                     | Min. 0.035  | 0.014           | A1      | --                                                                                    | --            |           |
|                                                                              | Av. Absorbed Energy (J) | Min. 27     | 100 105 110                                 | P                                                                                     | Min. 0.035  | 0.018           | Ti      | --                                                                                    | --            |           |
| X-Ray                                                                        |                         | --          | --                                          | Cr                                                                                    | Min. 0.2    | 0.025           | --      | --                                                                                    | --            |           |
| Hydrogen Content (ml/130g)                                                   |                         | --          | --                                          | Ni                                                                                    | Min. 0.3    | 0.0097          | --      | --                                                                                    | --            |           |
| 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 |         |  |               |           |
|                                                                              |                         |             |                                             |  |             |                 |         |                                                                                       |               |           |