



THE MOST RELIABLE WELDING®

# HOFFMAN ARC CO., LTD

## QUALITY CERTIFICATE OF WELDING CONSUMABLE

| Type                                                                         | Norm/code               | Part No.      | Brand Name | Diameter                                                                                                                                                                          | Lot No.       | Manufactured Date | Date of Issue |                   |
|------------------------------------------------------------------------------|-------------------------|---------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------|---------------|-------------------|
| E6013                                                                        | A5.1 / A5.1 M-2004      | 6001301       | Stark      | 3/32" (2.4mm)                                                                                                                                                                     | 16-3171       | Shown on Package  | 2016/8/26     |                   |
| 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)                                                      | --                      | --            | C          | ≤ 0.12                                                                                                                                                                            | 0.099         | Mo                | ≤ 0.30        | 0.0023            |
| Tensile Strength Rm(MPa)                                                     | --                      | --            | Si         | ≤ 1.0                                                                                                                                                                             | 0.20          | V                 | ≤ 0.08        | 0.0088            |
| Elongation A5 (%)                                                            | --                      | --            | Mn         | ≤ 1.20                                                                                                                                                                            | 0.37          | Cu                | --            | --                |
| Sharp V<br>noch                                                              | Impact Temp (°C)        | --            | S          | ≤ 0.035                                                                                                                                                                           | 0.013         | A1                | --            | --                |
|                                                                              | Av. Absorbed Energy (J) | --            | P          | ≤ 0.040                                                                                                                                                                           | 0.021         | Ti                | --            | --                |
| X-Ray                                                                        | --                      | --            | Cr         | ≤ 0.2                                                                                                                                                                             | 0.089         | --                | --            | --                |
| Hydogen Content (ml/130g)                                                    | --                      | --            | Ni         | ≤ 0.3                                                                                                                                                                             | 0.11          | --                | --            | --                |
| 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<br>the standard<br>Signature<br> |               |                   |               |                   |