



**Certificate of Conformance  
to Requirements for Welding Electrode  
EN 10204 3.1**

|                    |  |                             |
|--------------------|--|-----------------------------|
| Customer :         | Customer P.O.# : 2000-008458/PO:ICO-01526351 | Certificate No. : F071224-5 |
| Product : HF-N     | Mesh Size :                                  | Date of Mfg. : 07/03/2024   |
| Lot No. : 240703   | Classification : --                          | Date of Issue : 07/12/2024  |
| Specification : -- |  |                             |

CHEMICAL ANALYSIS OF FLUX FOR SUBMERGED ARC WELDING

|   |       |
|---|-------|
| SiO <sub>2</sub>                                  | 10.9% |
| Al <sub>2</sub> O <sub>3</sub> + TiO <sub>2</sub> | 17.8% |
| MnO + FeO   | 0.4%  |
| CaO + MgO + CaF <sub>2</sub>                      | 70.7% |



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**Manufacturing, Certification and Limited Warranty Agreement**

Data for the above supplied product are those obtained when welded and tested accordance with the above specification. All tests for the above classification were satisfied. Other tests and procedures may produce different results. The above supplied product are manufactured by Tien Tai Electrode an ITW Co. located at: No.6 Kaifa 4th Rd., Rende Dist., Tainan City 717, Taiwan R.O.C. Hobart Brothers produces welding consumables under continuing quality assurance programs audited and approved by Lloyd's Register Quality Assurance Limited(LRQA)



Certificate No. :B071224-1

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EN 10204 3.1**

**Customer :**

Product : METALLOY 865-S MOD/HF-N

Customer P.O.# : 2000-008458/PO:ICO-01526351

Part Number :

Diameter : 3.2mm

Lot No. : S614943/240703

Lot Classification :

Classification : --

Date Tested : 07/11/2024

Level of Testing :

Specification : --

Date of Issue : 07/12/2024

**Test Settings**

| Amps<br>DCEP | Volts | WFS  | Shielding Gas | Electrode Stickout | Temperature        |                      | Travel Speed |
|--------------|-------|------|---------------|--------------------|--------------------|----------------------|--------------|
|              |       |      |               |                    | Preheat            | Interpass            |              |
| 425          | 28    | NONE | NONE          | 35mm               | 85±25°F<br>30±15°C | 300±25°F<br>150±15°C | 13±1 ipm     |

**Mechanical Properties Lab Test #2DG11**

| Item        | Ult. Tensile Strength | Yield Strength | Elong % in 2 " | Impact Test Temp. | Charpy V-Notch Values ft.lbf |
|-------------|-----------------------|----------------|----------------|-------------------|------------------------------|
| Requirement | -                     | -              | -              | -                 | -                            |
| AS WELDED   | - psi<br>- MPa        | - psi<br>- MPa | -              | - °F<br>- °C      | -<br>Average ( - J)          |

| Radiographic |     | Fillet Weld Test |     |           |     |           |     | Moisture % |
|--------------|-----|------------------|-----|-----------|-----|-----------|-----|------------|
| Inspection:  | N/A | Horizontal:      | N/A | Vertical: | N/A | Overhead: | N/A | N/A        |
| Bending Test |     |                  |     |           |     |           |     |            |

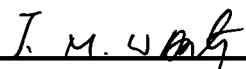
**Weld Metal Chemical Composition (%) Ref. No.CA24071109**

| Elements        | C     | Mn   | P     | S     | Si    | Cu    | Nb    | V    | Cr    | Ni   | Mo   |  |  |  |  |
|-----------------|-------|------|-------|-------|-------|-------|-------|------|-------|------|------|--|--|--|--|
| Requirement     | -     | -    | -     | -     | -     | -     | -     | -    | -     | -    | -    |  |  |  |  |
| Deposited Metal | 0.189 | 1.51 | 0.028 | 0.006 | 0.761 | 0.026 | 0.138 | 0.14 | 12.68 | 2.45 | 1.06 |  |  |  |  |

**Remarks**

Production Date :07/03/2024

Hardness Test (HRC): 48

  
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