



## WELDING CONSUMABLE CERTIFICATE

Certificate No.: 650920-6878009-001\_\_\_\_\_

Report No.: 6878009\_\_\_\_\_

Port of: Shanghai Port (MLO)\_\_\_\_\_

Date: 06-May-2025\_\_\_\_\_

### THIS IS TO CERTIFY

THAT THE UNDERSIGNED SURVEYOR TO THIS BUREAU DID, AT THE REQUEST OF TIEN TAI ELECTRODE (KUN SHAN) CO., LTD., ATTEND THEIR PLANT AT NO.189 HUAYUAN ROAD, ZHANGPU TOWN, KUNSHAN CITY, JIANGSU PROVINCE, P. R. CHINA, ON THE 19TH DAY OF MARCH, 2025 AND ON SUBSEQUENT DATES, IN ORDER TO CARRY OUT A PLANT SURVEY OF FACILITIES AND ASSOCIATED QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND TO WITNESS AND REPORT ON THE ANNUAL APPROVAL TESTING OF WELDING CONSUMABLES; AND,

THAT THE FACILITY IS CONSIDERED CAPABLE OF PROVIDING AN ACCEPTABLE UNIFORM PRODUCT, AND THAT EACH WELDING CONSUMABLE LISTED BELOW WAS FOUND IN COMPLIANCE WITH THE SPECIFICATION INDICATED AND IS ELIGIBLE TO BE PLACED ON THIS BUREAU'S APPROVED WELDING CONSUMABLES LIST IN THE FLUX CORED ARC WELDING SECTION:

<u>TRADE NAME</u>	<u>SPECIFICATION</u>	<u>GRADE OR CLASS</u>	<u>SHIELDING GAS</u>	<u>POSITION</u>	<u>CURRENT/ POLARITY</u>	<u>SIZE</u>
TFW-188M	Manufacturer's Guarantee	5Ni	100% CO <sub>2</sub>	ALL	DCEP	1.2mm

Manufacturer guarantee properties: Y.S.: Min 420Mpa; T.S.: Min 590Mpa; EL.: Min: 25%; CVN: Min 34J at -125 deg.C

Chemical Composition (%): C: 0.15 (Max); Si: 0.9 (Max); Mn: 1.0 - 6.0; P: 0.03 (Max); S: 0.03 (Max); Cr: 15.0 - 25.0  
Ni: 9.0 - 15.0; Mo: 1.5 - 4.0; Cu: 0.1 (Max); W: 2.0 (Max)

  
Yang, Honglin SURVEYOR

Note: This Certificate evidences compliance with one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping and is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. This Certificate is a representation only that the structure, item of material, equipment, machinery or any other item covered by this Certificate has met one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping as of the date of issue. Parties are advised to review the Rules for the scope and conditions of classification and to review the survey records for a fuller description of any restrictions or limitation on the vessel's service or surveys. The validity, applicability and interpretation of this Certificate is governed by the Rules and standards of American Bureau of Shipping who shall remain the sole judge thereof. Nothing contained in this Certificate or in any notation made in contemplation of this Certificate shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied.



## WELDING CONSUMABLE CERTIFICATE

Certificate No.: 650920-6878009-002\_\_\_\_\_

Report No.: 6878009\_\_\_\_\_

Port of: Shanghai Port (MLO)\_\_\_\_\_

Date: 06-May-2025\_\_\_\_\_

### THIS IS TO CERTIFY

THAT THE UNDERSIGNED SURVEYOR TO THIS BUREAU DID, AT THE REQUEST OF TIEN TAI ELECTRODE (KUN SHAN) CO., LTD., ATTEND THEIR PLANT AT NO.189 HUAYUAN ROAD, ZHANGPU TOWN, KUNSHAN CITY, JIANGSU PROVINCE, P. R. CHINA, ON THE 19TH DAY OF MAR, 2025 AND ON SUBSEQUENT DATES, IN ORDER TO CARRY OUT A PLANT SURVEY OF FACILITIES AND ASSOCIATED QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND TO WITNESS AND REPORT ON THE ANNUAL APPROVAL TESTING OF WELDING CONSUMABLES; AND,

THAT THE FACILITY IS CONSIDERED CAPABLE OF PROVIDING AN ACCEPTABLE UNIFORM PRODUCT, AND THAT EACH WELDING CONSUMABLE LISTED BELOW WAS FOUND IN COMPLIANCE WITH THE SPECIFICATION INDICATED AND IS ELIGIBLE TO BE PLACED ON THIS BUREAU'S APPROVED WELDING CONSUMABLES LIST IN THE GAS METAL ARC WELDING INCLUDING MIG/TIG WELDING SECTION:

<u>TRADE NAME</u>	<u>SPECIFICATION</u>	<u>GRADE OR CLASS</u>	<u>SHIELDING GAS</u>	<u>POSITION</u>	<u>CURRENT/ POLARITY</u>	<u>SIZE</u>
TGS-2594	AWS A5.9/A5.9M	ER2594	100% Ar	ALL	DCEN	1.6-3.2mm

Manufacturer guarantee properties: Min. CVN: 34J @ -40 deg.C

  
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Yang, Honglin SURVEYOR

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