



NIPPON KAIJI KYOKAI

COPY

Approval No. NKY-3663  
Certificate No. TA24845E

# Certificate OF TYPE APPROVAL

Article: Welding Consumables for Steels for Low Temperature Service  
 Brand: TNM-9  
 Applicant: Tien Tai Electrode (Kunshan) Co., Ltd.  
 No.189 Huayuan Road, Zhangpu Town, Kunshan City,  
 Jiangsu Province, China  
 Manufacturer: Tien Tai Electrode (Kunshan) Co., Ltd.  
 No.189 Huayuan Road, Zhangpu Town, Kunshan City,  
 Jiangsu Province, China  
 Grade: KMWL92  
 KMWL92-vE47M  
 Welding Process: Manual Welding  
 Welding Positions and Max. Diameter of Wire: See Table 1  
 Current: AC and DCEP  
 Shielding Gas: Not Applicable  
 Remarks: For annual inspection, mechanical properties are to comply with the  
 requirements specified in Table 2

Table 1 Welding Positions and Max. Diameter of Wire

Butt Weld		Fillet Weld	
Flat:	4.0mm	Flat:	4.0mm
Horizontal:	4.0mm	Horizontal Vertical:	4.0mm
Overhead:	4.0mm	Horizontal:	4.0mm
Vertical Upward:	4.0mm	Overhead:	4.0mm
Vertical Downward:	Not Applicable	Horizontal Overhead:	4.0mm
		Vertical Upward:	4.0mm
		Vertical Downward:	Not Applicable

THIS IS TO CERTIFY that the above mentioned welding consumable has been approved by the NIPPON KAIJI KYOKAI in accordance with the requirements of the Society's Rules.

This Certificate will remain in force until 4 July 2025.

Issued at Tokyo on 5 July 2024.

  
 M. Irisawa  
 General Manager


Material and Equipment Department

Note : The validity of this certificate may be renewed by endorsement on the attached sheet upon completion of the annual inspections.

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Table 2 Mechanical Properties

Deposited Metal Test				
Tensile Test			Impact Test	
Tensile strength (N/mm <sup>2</sup> )	Yield point (N/mm <sup>2</sup> )	Elongation (%)	Testing temperature (°C)	Minimum mean absorbed energy (J)
660 min.	410 min.	25 min.	-196	47

<p>The validity of this certificate has been renewed until <u>4 July 2026</u>.</p> <p>Date: <u>20 June 2025</u></p> <p> Surveyor</p>	<p>The validity of this certificate has been renewed until _____.</p> <p>Date: _____</p> <p>_____ Surveyor</p>
<p>The validity of this certificate has been renewed until _____.</p> <p>Date: _____</p> <p>_____ Surveyor</p>	<p>The validity of this certificate has been renewed until _____.</p> <p>Date: _____</p> <p>_____ Surveyor</p>
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