



NIPPON KAIJI KYOKAI

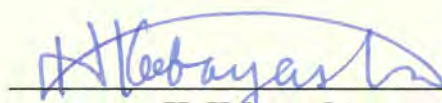
Certificate
OF
TYPE APPROVAL

Approval No. NKY-3388
Certificate No. TA181375E

Article : Welding Consumables
Brand : TNM-9
Applicant : Tien Tai Electrode Co., Ltd.
: Tainan, Taiwan
Manufacturer : Tien Tai Electrode Co., Ltd.
: Tainan, Taiwan
Grade : KMWL92H5
KMWL92H5-YP430M
Welding Process : Manual Welding
Welding Positions and Max. Diameter of Electrode : See Table 1
Current : AC and DCEP
Shielding Gas : Not Applicable
Applicable Parent Material : Steels for Low Temperature Service
Remarks: For annual inspection, mechanical properties are to comply with
the requirements specified in Table 2.

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 January 2019.
Issued at Tokyo on 28 November 2018.


H. Kobayashi
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.

Certificate No. TA181375E






Table 1 Welding Positions and Max. Diameter of Electrode

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

Table 2 Mechanical Properties

Deposited Metal Test				
Tensile Test			Impact Test	
0.2 % Proof stress (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Testing temperature (°C)	Minimum mean absorbed energy (J)
430 min.	660 min.	25 min.	− 196	27

Note: This certificate was rewritten because of addition of welding positions and change of grade of welding consumable.

<p>The validity of this certificate has been renewed</p> <p>until <u>4th January 2020</u> .</p> <p>Date: <u>3 December 2018</u></p> <p><u>[Signature]</u> Surveyor</p> 	<p>The validity of this certificate has been renewed</p> <p>until _____ .</p> <p>Date: _____</p> <p>_____ Surveyor</p>
<p>The validity of this certificate has been renewed</p> <p>until <u>4th January 2021</u> .</p> <p>Date: <u>12 December 2019</u></p> <p><u>[Signature]</u> Surveyor</p> 	<p>The validity of this certificate has been renewed</p> <p>until _____ .</p> <p>Date: _____</p> <p>_____ Surveyor</p>
<p>The validity of this certificate has been renewed</p> <p>until <u>4th January 2022</u> .</p> <p>Date: <u>9 December 2020</u></p> <p><u>[Signature]</u> Surveyor</p> 	<p>The validity of this certificate has been renewed</p> <p>until _____ .</p> <p>Date: _____</p> <p>_____ Surveyor</p>
<p>The validity of this certificate has been renewed</p> <p>until <u>4th January 2023</u> .</p> <p>Date: <u>8 December 2021</u></p> <p><u>[Signature]</u> Surveyor</p> 	<p>The validity of this certificate has been renewed</p> <p>until _____ .</p> <p>Date: _____</p> <p>_____ Surveyor</p>
<p>The validity of this certificate has been renewed</p> <p>until <u>4th January 2024</u> .</p> <p>Date: <u>22 November 2022</u></p> <p><u>[Signature]</u> Surveyor</p> 	<p>The validity of this certificate has been renewed</p> <p>until _____ .</p> <p>Date: _____</p> <p>_____ Surveyor</p>