



# NIPPON KAIJI KYOKAI

## Certificate

OF

### TYPE APPROVAL

Approval No. NKY-3096  
Certificate No. TA22439E

Article: Welding Consumables for High Tensile Steels for Hull  
 Brand: DW-S1LG / KL4  
 [Wire / Backing]  
 Applicant: Kobe Steel, Ltd., Ibaraki Plant  
 2-19, Higashi-Unobe-Cho, Ibaraki, Osaka, Japan  
 Manufacturer: Kobe Steel, Ltd., Ibaraki Plant  
 2-19, Higashi-Unobe-Cho, Ibaraki, Osaka, Japan  
 Grade: KEW54Y40  
 KEW55Y40  
 Welding Process: Electro-Gas Welding  
 Welding Positions and Max. Diameter of Wire: See Table 1  
 Current: DCEP  
 Shielding Gas: CO<sub>2</sub>  
 Remark: For annual inspection, mechanical properties are to comply with the requirements specified in Table 2.

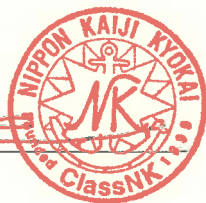
Table 1 Welding Positions and Max. Diameter of Wire for Both Grades

Butt Weld		Fillet Weld	
Flat:	Not Applicable	Flat:	Not Applicable
Horizontal:	Not Applicable	Horizontal Vertical:	Not Applicable
Overhead:	Not Applicable	Horizontal:	Not Applicable
Vertical Upward:	1.6 mm	Horizontal Overhead:	Not Applicable
Vertical Downward:	Not Applicable	Overhead:	Not Applicable
		Vertical Upward:	Not Applicable
		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 25 June 2023.

Issued at Tokyo on 15 June 2022.

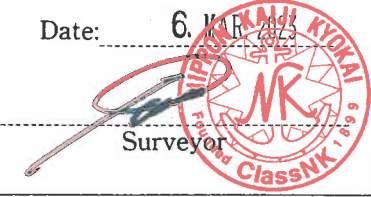
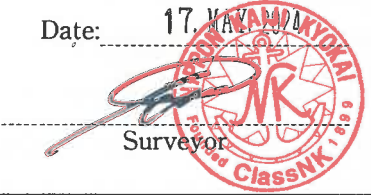
  
 Y. Takao  
 General Manager  
 Material and Equipment Department

- Notes :
- (1) The validity of this certificate may be renewed by endorsement on the attached sheet upon completion of the annual inspections.
  - (2) This certificate was rewritten because of addition of grade of welding consumable.

Certificate No. TA22439E

Table 2 Mechanical Properties

Butt Weld Test					
Tensile Test	Longitudinal Tensile Test			Impact Test	
Tensile strength (N/mm <sup>2</sup> )	Tensile strength (N/mm <sup>2</sup> )	Yield point (N/mm <sup>2</sup> )	Elongation (%)	Testing temperature (°C)	Minimum mean absorbed energy (J)
510 min.	510~690	400 min.	22 min.	-60	39

<p>The validity of this certificate has been renewed until <u>25. JUN. 2024</u> .</p> <p>Date: <u>6. MAR. 2023</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 <u>25. JUN. 2025</u> .</p> <p>Date: <u>17. MAY 2024</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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