



Approval No. NKY-3546
Certificate No. TA22366E

NIPPON KAIJI KYOKAI

Certificate OF TYPE APPROVAL

Article: Welding Consumables for Steels for Low Temperature Service
Brand: Cryo-Shield LNG
Applicant: ESAB SeAH Corp.
56, Jeongdong-ro 62beon-gil, Seongsan-gu, Chang-won-si,
Gyeongsangnam-do, Korea
Manufacturer: ESAB SeAH Corp.
56, Jeongdong-ro 62beon-gil, Seongsan-gu, Chang-won-si,
Gyeongsangnam-do, Korea
Grade: KSWL92G(C)
KSWL92G(C) -YP420M-TS690M
Welding Process: Semi-Automatic Welding (MAG Welding)
Welding Positions and Max. Diameter of Wire: See Table 1 below
Current: DCEP
Shielding Gas: CO₂
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 for Both Grades

Butt Weld		Fillet Weld	
Flat:	1.2mm	Flat:	1.2mm
Horizontal:	1.2mm	Horizontal Vertical:	1.2mm
Overhead:	1.2mm	Horizontal:	1.2mm
		Horizontal Overhead:	1.2mm
		Overhead:	1.2mm
Vertical Upward:	1.2mm	Vertical Upward:	1.2mm
Vertical Downward:	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 16 March 2023.

Issued at Tokyo on 24 May 2022.

Y. Takao

General Manager






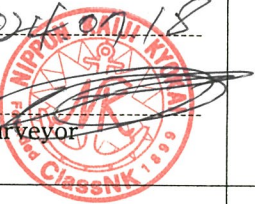
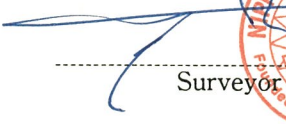

Material and Equipment Department

- 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.

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Table 2 Mechanical Properties

Deposited Metal Test				
Tensile Test			Impact Test	
Tensile strength (N/mm ²)	Yield point (N/mm ²)	Elongation (%)	Testing temperature (°C)	Minimum mean absorbed energy (J)
690 min.	420 min.	25 min.	−196	27

<p>The validity of this certificate has been renewed until <u>2024.03.16</u> .</p> <p>Date: <u>2024.08.24</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>2025.03.16</u> .</p> <p>Date: <u>2023.09.28</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>2026.03.16</u> .</p> <p>Date: <u>2024.09.18</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>2027.03.16</u> .</p> <p>Date: <u>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>