



# Type Approval Certificate

[ Welding Consumables ]

**Initial Approval** 18 September 2020  
**Manufacturer** ESAB SeAH Corp.  
 56, Jeongdong-ro 62beon-gil, Seongsan-gu, Changwon-si, Gyeongsangnam-do,  
 Rep. of Korea

**Product Description** Flux Cored Wires with Gas for Semi-Automatic Arc Welding

- Brand : Cryo-Shield LNG
- Grade : L 91SG(C) (\*)
- Diameter : 1.2 mm
- Current (Polarity) : DC(+)
- Shielding gas : 100% CO<sub>2</sub>
- Welding position : All excluding vertical-down

(\*) Manufacturer's guaranteed mechanical properties of all-weld metal  
 : YS ≥ 420 MPa, TS ≥ 690 MPa, EL ≥ 25%.  
 CVN ≥ average 34 J at -196°C.

\* See "Appendix 1"

**Approval Condition**

1. The product or packing is to be marked with manufacturer name and type designation on a suitable position.
2. Individual Product Certification is not required.
3. Periodical survey is to be carried out at an interval of one(1) year in the presence of the surveyor.

**THIS IS TO CERTIFY** that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows.

Pt. 2, Ch. 2, Sec. 6 of the Rules for Classification of Steel Ships.

This Certificate is valid until 17 September 2025

Issued at Changwon, Korea on 18 September 2020



This certificate is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication of the certificate can be confirmed from "<http://e-cert.krs.co.kr>" by using the tracking No(ME23035824763) and certificate No.(CWN02485-WD030).



**KOREAN REGISTER**

*Park Munsoo*

*General Manager of  
Changwon Branch Office*

- Note :**
1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.
  2. This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer.
  3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.
  4. Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the requirements as amended.

### Endorsement for Periodical Survey

Date of Issue : 18 September 2020

Anniversary Date : 17 September

This is to certify that the product is in compliance with the relevant requirements to obtain/retain the Society's approval in accordance with Pt. 2, Ch. 2, Sec. 6 of the Rules for Classification of Steel Ships. and is valid until 17 September 2021

#### ■ Periodical Survey

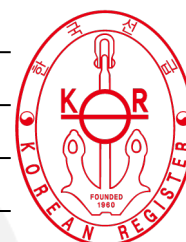
Periodical Survey has been carried out and the product is valid until

17 September 2022

Branch(Office) : Changwon Branch Office

Date : 5 July 2021

Surveyor : YEO Kwangmo



#### ■ Periodical Survey

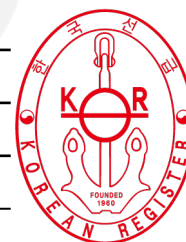
Periodical Survey has been carried out and the product is valid until

17 September 2023

Branch(Office) : Changwon Branch Office

Date : 15 September 2022

Surveyor : YEO Kwangmo



#### ■ Periodical Survey

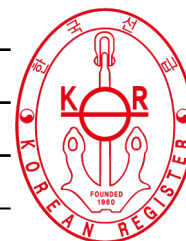
Periodical Survey has been carried out and the product is valid until

17 September 2024

Branch(Office) : Changwon Branch Office

Date : 22 August 2023

Surveyor : YEO Kwangmo



#### ■ Periodical Survey

Periodical Survey has been carried out and the product is valid until

Branch(Office) :

Date :

Surveyor :

**Note :** The approval will be automatically suspended and the Certificate become invalid if not endorsed annually within 3 months after the anniversary date of this Certificate