



Certificate no.:
TAF00001YU

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Surface Material of Low Flame Spread

with type designation(s)
PET Film ALCSM Mineral Wool (Hi Wool)

issued to

You Shin Dan Yeol Co., Ltd. Factory No.2
Ulsan, Korea, Republic of

is found to comply with

DNV rules for classification – Ships

DNV offshore standards

DNV statutory interpretations DNV-SI-0364 – SOLAS interpretations, Edition July 2021

Application:

Approved for use as low flame spread material, not generating excessive quantities of neither smoke nor toxic products in fire.

This certificate is recognized by Transport Canada.

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Høvik** on **2025-01-06**

This Certificate is valid until **2030-01-05**.

for **DNV**

DNV local unit: **Ulsan**

Approval Engineer: **Meike Grabau**

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This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

"PET Film ALCSM Mineral Wool (Hi Wool)"

is a surface material consists of (from exposed side) PET film, AL-foil, glass fibre glued to a wool board, suitable to bulkhead, wall and ceiling linings.

Maximum thickness: 40.682 mm

Material / Layer	Producer	Thickness	Density / Mass
PET film	K.G.F. Composite	0.012 mm	1.4 kg/m ³
AL-foil	K.G.F. Composite	0.020 mm	2.7 kg/m ³
MAT CSM-300	K.G.F. Composite	0.600 mm	300 g/m ²
Glue	Dong Bang Chemical	0.050 mm	0.8 g/cm ²
Wool board	KCC Corporation or BYUCKSAN	40 mm	80 – 150 kg/m ³

Application/Limitation

Approved for use as low flame spread surface material, not generating excessive quantities of neither smoke nor toxic products in fire.

Approved for use as decorative veneers on any metallic base or non-combustible base.

Approved colour: silver

Maximum organic content: 4.28 wt%

The product satisfies the requirement for maximum calorific value (SOLAS Reg. II-2/5.3.2.2) without further testing.

Any adhesive used, other than the one used during testing, has to be tested for low flame spread characteristics according to IMO 2010 FTP Code part 5.

Each product is to be supplied with its manual for installation, use and maintenance.

Type Approval documentation

Certification in accordance with Class Programme DNV-CP-0338, September 2021.

Test report no. AK2024-0294 dated 7 August 2024 from FILK, Yeosu, Korea.

Test report no. AK2024-0295 dated 7 August 2024 from FILK, Yeosu, Korea.

Test report no. AK2024-0296 dated 7 August 2024 from FILK, Yeosu, Korea.

Test report no. AK2024-0296 dated 7 August 2024 from FILK, Yeosu, Korea.

Drawing no. YSDY-FM-001-2024 dated 1 June 2024 from Manufacturer.

Tests carried out

Tested according to IMO 2010 FTP Code part 5 and annex 2 item 2.2 and 2.3.

Marking of product

The product or packing is to be marked with name of manufacturer, type designation and fire technical rating.

Transport Canada Approval

Based on the procedures laid down in the Transport Canada Publication entitled "Procedures for Approval of Life-Saving Appliances, Fire Safety Systems, Equipment and Products (TP14612)", DNV confirms that the product/s listed in this certificate is/are in accordance with Transport Canada's requirements.

Periodical assessment

DNV's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Programme DNV-CP-0338, Section 4.

Manufactured by:

You Shin Dan Yeol Co., Ltd. Factory No.2

16 Goyeongongdan 3-gil, Goyeon-ri, Ungchon-myeon, Ulju-gun Ulsan, Republic of Korea