

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Surface Material of Low Flame Spread**

with type designation(s)

BULKHEAD AND DECK FINISH MATERIAL HI-WOOL + G.C.F

Issued to

**KCC Corporation Ltd. Gimcheon Plant
Gimcheon, Gyeongsangbuk-do, Republic of Korea**

is found to comply with

DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations**DNV GL rules for classification – Ships****DNV GL offshore standards****Application :****Low flame spread surface material, not generating excessive quantities of 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 GL.**Issued at **Høvik** on **2021-01-08**This Certificate is valid until **2026-01-07**.for **DNV GL**DNV GL local station: **Ulsan**Approval Engineer: **Karolina Kuśmider****Mårten Schei-Nilsson
Head of Section**

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 GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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 300,000 USD.



Job Id: **262.1-033200-1**
Certificate No: **TAF00001DC**

Product description

"BULKHEAD AND DECK FINISH MATERIAL HI-WOOL + G.C.F."

Composition:

Material	Thickness [mm]
Aluminium foil	0.04
Glass cloth fabric	0.12
Glue	0.05
Hi-Wool (density 120 kg/m ³)	49.79

Total thickness 50 mm.

Application/Limitation

Approved for use as low flame-spread surface material, not generating excessive quantities of smoke nor toxic products in fire.

Approved for use as decorative veneer on any non-combustible substrate.

Approved colour: dark brown.
Maximum organic content: 2.5%.

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

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

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

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, September 2018.

Test report No. A2017-0205, dated 23 March 2017 from FILK, Yeosu, Korea.

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 "Approval Procedures for, Life Saving Equipment and Structural Fire Protection Products (TP 14612)", DNV GL confirms that the product/s listed in this certificate is/are in accordance with Transport Canada's requirements.

Periodical assessment

DNV GL'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 DNVGL-CP-0338, Section 4.