Certificate no.:
TAF00001ZF

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Horizontal Class A Division

with type designation(s)
Class A-60 Deck: CD-101, CD-111

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

is found to comply with
DNV statutory interpretations DNV-SI-0364 – SOLAS interpretations, Edition July 2021
DNV rules for classification – Ships
DNV offshore standards

Application:

Products approved by this certificate are accepted for installation on all vessels classed by DNV.

Approved for use as a horizontal fire retarding division of class A-60.

This certificate is recognized by Transport Canada.

Issued at **Høvik** on **2025-03-25**
This Certificate is valid until **2030-03-24**.
DNV local unit: **Ulsan**

for **DNV**

Approval Engineer: **Izabela Misztal**

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
"Class A-60 Deck: CD-101, CD-111"
composed of a structural steel deck insulated on the underside with a single layer of 45 mm thick KCC Cerakwool New-Bio Alpha 1200 blanket (of 64 kg/m^3 density) applied on the steel plate and around the stiffeners.

The insulation is fixed to the bulkhead with steel pins Ø2.5-4.0 mm and with Ø25-35 mm washers.

The pins are installed with maximum spacing of 300 mm horizontally and vertically for type CD-111.

The pins are installed with maximum spacing of 350 mm horizontally, 290 mm vertically and approx. 230 mm diagonally for type CD-101.

For further details, see drawings listed under Type Approval documentation.

Application/Limitation
Approved for use as a horizontal fire retarding division of class A-60.

Any surface materials used have to be approved for smoke and toxicity and low flame spread characteristics to IMO 2010 FTP Code Part 2 and 5 (or IMO FTPC Part 2 and 5 when in compliance with the IMO 2010 FTP Code Ch. 5.2 and 8) when required according to relevant rules.

Product is to be supplied with its manual for installation and maintenance.

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

Test Report No. KOMERI-0402-14T0369-1 dated 17 August 2016 from KOMERI, Busan, Korea (CD-101).
Drawing No. KCC-GC-2012-01-A and B dated 11 February 2014 from the manufacturer.

Test Report No. KOMERI-0402-14T1091-1 dated 17 August 2016 from KOMERI, Busan, Korea (CD-111).
Drawing No. KCC-GC-2014-01-A and B dated 29 April 2014 from the manufacturer.

Tests carried out
Tested according to IMO 2010 FTP Code Part 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:
KCC Corporation Ltd. Gimcheon Plant
39, Saneopdanji-ro, Eomo-myeon,
Gimcheon - si, Gyeongsangbuk-do, Korea