

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Non-Combustible Material**

with type designation(s)

MINERAL WOOL 60/80/100/140/160/200/240/280 and HI WOOL 110/120/150

Issued to

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

is found to comply with

DNV GL rules for classification – Ships**DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations****DNV GL offshore standards****Application :****Approved for use as non-combustible materials.****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 **2020-06-08**This Certificate is valid until **2025-06-07**.for **DNV GL**DNV GL local station: **Ulsan**Approval Engineer: **Marcin Tobiasz****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: **262.1-033198-1**
Certificate No: **TAF00001DE**

Product description

"MINERAL WOOL 60/80/100/140/160/200/240/280 and HI WOOL 110/120/150

Type	Density (kg/m ³ ± 10%)	Organic content (%)	Colour
Mineral Wool 60	60	1.72	Light Brown
Mineral Wool 80	80	1.61	Light Brown
Mineral Wool 100	100	3.46	Dark Yellow
Mineral Wool 140	140	2.73	Khaki
Mineral Wool 160	160	2.03	Dark Yellow
Mineral Wool 200	200	2.51	Light Brown
Mineral Wool 240	240	-	Dark Khaki
Mineral Wool 280	280	4.04	Dark Yellow
Hi Wool	110	2.84	Dark Brown
Hi Wool	120	2.46	Dark Brown
Hi Wool	150	2.00	Khaki

Application/Limitation

Approved for use as non-combustible materials.

The product may be used as an integrated part of approved fire resisting divisions only when tested as such.

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. A2017-0883, dated 08 November 2017 from FILK, Yeosu, Korea.

Test report No. A2017-0884, dated 08 November 2017 from FILK, Yeosu, Korea.

Test report No. A2017-0459, dated 07 July 2017 from FILK, Yeosu, Korea.

Test report No. KOMERI-0402-17T1618, dated 04 July 2017 from FILK, Yeosu, Korea.

Test report No. A2017-0460, dated 07 July 2017 from FILK, Yeosu, Korea.

Test report No. A2017-0885, dated 08 November 2017 from FILK, Yeosu, Korea.

Test report No. 2008-0374, dated 27 June 2008 from FILK, Yeosu, Korea.

Test report No. A2017-0461, dated 07 July 2017 from FILK, Yeosu, Korea.

Tests carried out

Tested according to IMO FTPC Part 1 and in compliance with IMO 2010 FTP Code Ch. 8 and IMO 2010 FTP Code Part 1.

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.



Job Id: **262.1-033198-1**
Certificate No: **TAF00001DE**