DNV·GL

Certificate No:
MEDB0000799

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the Surface materials and floor coverings with low flame-spread characteristics: paint systems

with type designation(s)
KARUMEL EX8816(S)

Issued to
KCC Corporation, Jeonju 2nd Plant
Wanju_Gun, Jeollabuk-do, Republic of Korea

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2020/1170,**
item No. MED/3.18b. SOLAS 74, Reg. II-2/3, II-2/5, II-2/6 & X/3, IMO MSC/Circ. 1120, 2000 HSC Code 7 and IMO 2010 FTP Code

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2025-12-22**.
Issued at **Høvik** on **2020-12-23**

DNV GL local station:
CMC Korea

Approval Engineer:
Helge Bjørnarå

Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
Head of Notified Body

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005, and amended by Decision No 1/2019 dated February 22nd, 2019.

NORWEGIAN ACCREDITATION PROD 019

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.
This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.
Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

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.

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Product description
"Karumel EX8816(S)"
Consisting of an epoxy/polyester resin based thermosetting powder coating.

Maximum film thickness is 80 µm.

Application/Limitation
Approved for use as low flame spread material, not generating excessive quantities of smoke nor toxic products in fire. Approved for use throughout the accommodation.

Approved for use on metallic surface with thickness of at least 2.2 mm.

Approved for all colour variations.

Maximum organic content: 70%.

Maximum gross calorific value shall be documented separately where applicable, ref. SOLAS Chapter II-2 Reg. 5.3.2.

Each product is to be supplied with its manual for installation/application and maintenance.

Type Examination documentation
Test report No. A2016-0254 dated 29 February 2016 from FILK, Korea.
Test report No. A2016-0256 dated 2 March 2016 from FILK, Korea.

Tests carried out
Tested according to IMO 2010 FTP Code part 2 and 5.

Marking of product
The product or packing is to be marked with name and address of manufacturer, type designation, MED Mark of Conformity and USCG approval if applicable (see page 1).