DNV·GL

Certificate No:
MEDB00005BG

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: floor coverings

with type designation(s)
PEBBLE (EPOXY MORTAR) - TEX

Issued to
Orion Ind Co., Ltd.
Busan, Republic of Korea

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2019/1397,**
item No. MED/3.18c. 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 **2025-01-14**.
Issued at **Høvik** on **2020-01-15**

DNV GL local station:
Gimhae Station

Approval Engineer:
Karolina Kusmider

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.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.

NORWEGIAN ACCREDITATION PROD 019

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Product description

"PEBBLE (EPOXY MORTAR) - TEX"
A marine floor covering composed of:
- 0.5 mm primary coating (Glass primer 0.3 kg/m2 + Hardener 0.3 kg/m2)
- 4.0 mm epoxy mortar (Epoxy medium 1.0 kg/m2 + Colour sand 7.0 kg/m2)
- 0.5 mm top coating (Pebble glass 0.5 kg/m2 + Hardener 0.5 kg/m2)

Total floor covering thickness is 5 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 floor coverings on a metallic substrate with thickness of at least 2.25 mm.

Several layers of floor coverings are acceptable provided that each layer is approved according to the Marine Equipment Directive and bear the mark of Conformity.

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 and to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

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

Type Examination documentation

Test report No. 2009-0226 dated 29 May 2009 from FILK, Gyeonggi-Do, Korea.
Test report No. 2009-1350 dated 16 November 2009 from FLIK, Gyeonggi-Do, Korea.

Tests carried out

Tested according to IMO FTPC Parts 5 and 2 and in compliance with IMO 2010 FTP Code Ch. 8.

Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation, fire-technical rating, the MED Mark of Conformity and USCG approval number if applicable (see first page).