

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)
D-SYS I type Quartz sand floor coverings

Issued to

Huanan Building Materials (Shenzhen) Co., Ltd.
Shenzhen, Guangdong, China

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2018/773,**

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

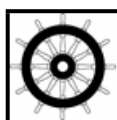
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2024-06-04.**

Issued at **Høvik** on **2019-06-05**

DNV GL local station:
China South NB

Approval Engineer:
Thorvald Furuseth



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.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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



Product description

"D-SYS I type Quartz sand floor coverings"

composed of epoxy resin (0.75 kg/m³), colored sand (6.0 kg/m³) and glue (0.7-0.8 kg/m³)

Nominal density: 15.6 g/cm³

Coating thickness: 3 mm.

Application/Limitation

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

Approved colour: Blue
Maximum organic content: 30 %

Approved for use as floor covering on any low flame-spread floor covering, steel or non-combustible material.

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.

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.

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

Type Examination documentation

Test report No. FT12189 dated 9 August 2012 from "FEFTC" Far East Fire Testing Centre, Shanghai, China.

Test report No. FT14015 dated 12 January 2014 from "FEFTC" Far East Fire Testing Centre, Shanghai, China.

Tests carried out

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

Marking of product

The product or packaging 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).