EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB000084C

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the Penetrations through "B" class divisions: electric cable transits

with type designation(s)
Class B-15 Wall Extension with electric cable penetration

Issued to
SAINT-GOBAIN ISOVER G+H AG
Ludwigshafen am Rhein, Rheinland-Pfalz, Germany

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2022/1157,**
item No. MED/3.27a. SOLAS 74 as amended, Regulation II-2/9 and IMO 2010 FTP Code.

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

This Certificate is valid until **2028-03-08**.

Issued at **Hamburg** on **2023-03-09**

DNV local unit:
Augsburg

Approval Engineer:
Carsten Hunsalz

Notified Body
No.: **0098**

for **DNV GL SE**

Christine Mydlak-Roeder
Head of Notified Body

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 SE 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 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 300,000 USD.

Product description

Electric cable penetration through Class B-15 Wall Extension.

Components:

Class B-15 Wall Extension for bulkheads made of ISOVER ULTIMATE U SeaProtect slab 66 with one layer of 50mm thickness, joined together with pins, washers and perforated steel. Reference MEDB00007MS issued by DNV notified body 0098.

Sheet metal cable tray made of steel:

Dimension and filling rate:

75x15 mm (width x height) filled with a bundle of marine cables (75x50 mm, cables touching each other) up to

400x85 mm (width x height) filled with a bundle of marine cables (400x85 mm, cables touching each other)

Wire frame cable tray made of steel:

Dimension and filling rate:

100x30 mm (width x height) filled with a bundle of marine cables (100x50 mm, cables touching each other) up to

400x55 mm (width x height) filled with a bundle of marine cables (400x85 mm, cables touching each other)

Cable bundle without cable tray:

-Filling rate: from one single cable Ø 6,8 mm up to a cable bundle with Ø 40 mm, cables touching each other.

ISOVER ULTIMATE U SeaProtect Roll 46 30mm Alu1, with density 46 kg/m^3

Cable bundle and cable trays to be insulated on both sides of the extension with U SeaProtect Roll 46 30mm Alu1, length 150mm and 30mm thick faced with reinforced alu foil, closed by a winding wire galvanised 0,65mm thick.

The installation has to be carried out according drawing AK2476 dated 2022-11-28 and AK2478 dated 2022-12-16

Application/Limitation

Electric cable penetration through Class B-15 Wall Extension (reference MEDB00007MS)

Water- / Gas- tightness: Not applicable

Type Examination documentation

Test reports:

DBI PGB10017A dated 2021-06-07, DBI PGB10042A Rev.1 dated 2023-01-17, DBI PGB10186A dated 2022-07-11

Installation drawings:

- AK2476 - B15 electric cable transits-drawing dated 2022-11-28.
- AK2478 - Installation of the B15 extension penetrations dated 2022-12-16

Tests carried out

- IMO Res. MSC.307(88)-(2010 FTP Code), Annex 1: Part 3,

Marking of product

For identification to this type examination certificate the product or packing is to be marked with:

- Manufacturer's name
- Type designation and fire-technical rating
- Mark of Conformity according to Article 10 of the Council Directive (MED)

END OF CERTIFICATE