EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB000080K

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 AS under the authority of the Government of Norway.

This is to certify:

That the A & B Class divisions fire integrity: B class divisions.

with type designation(s)
Ceiling MI35 – B15 fittings

Issued to
Marine Interiors Cabins S.p.A.
Trieste, TS, **Italy**

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2021/1158,**
item No. MED/3.11b. SOLAS 74 as amended, Regulation II-2/3.4 & II-2/9, IMO 2010 FTP Code, IMO MSC/Circ.1120 and IMO MSC.1/Circ.1581

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

This Certificate is valid until **2027-03-08**.

Issued at **Høvik** on **2022-03-09**

DNV local station:
Italy/Malta CMC

Approval Engineer:
Grzegorz Wolski

Notified Body
No.: **0575**

for **DNV AS**

Sverre Olav Bergli
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 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 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
Continuous Ceiling MI35 – B15 with appliances

Continuous Ceiling MI35 can be fitted with:

- Air box exhaust unit:
  The air box was built using steel sheets with a thickness of 1 mm. The air box was insulated on both sides of the steel sheet. On the outside 25 mm thick Paroc Marine Fire Slab with a density of 180 kg/m^3 was used, and on the inside 25 mm thick ISOVER E 60S TV 018 with a density of 30 kg/m^3 was used.
- Ceiling restoring box unit 1:
  A hole with a diameter of 200 mm was cut centered in a 300 mm wide panel. The Ceiling restoring box unit was placed over the hole and screwed to the steel sheets on the unexposed side using self-tapping screws with an even distribution along the ceiling joints. The box unit was built from 0.7 mm steel sheets. The steel sheets were insulated on the inside using 25 mm thick Paroc Marine Fire Slab N5 with a density of 180 kg/m^3.
- Ceiling restoring box unit 2:
  A hole with a diameter of 200 mm was cut centered in a 600 mm wide panel. The Ceiling restoring box was placed over the hole and screwed to the ceiling on the unexposed side using spiral insulation screws into the mineral wool insulation on top of the ceiling panels with an even distribution. The box unit was built from 0.7 mm steel sheets. The steel sheets were insulated on the inside using 25 mm thick Paroc Marine Fire Slab N5 with a density of 180 kg/m^3.
- Small inspection hatch:
  The inspection hatch was made using 1 mm thick steel sheets bent to shape as shown on drawing. The inspection hatch frame was made of 2 mm thick steel. The frame profile is shown on sponsor drawing +24PC00425.02-sheet 3/3. The frame was fixed to the ceiling panels using self-drilling screws with a c/c distance of 240 mm on both long edges of the hatch opening. The screws were mounted into the side of the ceiling panels to avoid visible screws at the bottom of the ceiling. On each end of one of the longitudinal sides, two holes were drilled to attach the hatch, by inserting pins acting as hinges. The inspection hatch was insulated using Paroc Marine Fire Slab 140 N5 with a thickness of 35 mm and a density of 140 kg/mm^3.
- Large inspection hatch:
  The inspection hatch was made using 1 mm thick steel sheets bent to shape as shown on sponsor drawing +24PC00425.02 – sheet 3/3. The large inspection hatch consisted of two pieces connected with pop rivets along a center flange. Fixation and insulation as described for small inspection hatch.

For further details, see documentation listed under Type Examination documentation below.

Application/Limitation
Approved for use as a horizontal fire retarding division of class B-15. Approved for use as a horizontal fire retarding division of a class A-30 steel deck in combination with a class B-15 ceiling, when ceiling is positioned with a min. distance of 434 mm below deck

Approved for installation in the tested Continuous Ceiling MI35 by Marine Interiors Cabins S.p.A. Installation in other ceilings may be approved case-by-case. Ceiling has to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

The insulation materials and adhesives used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity. This requirement may also be applicable for surface materials used, if required by relevant rules and regulations.

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

Type Examination documentation
Test report No. PGB10148A rev.0 dated 06 January 2022 from DBI, Hvidovre, Denmark.
Test report No. PGB10134A rev.0 dated 29 November 2021 from DBI, Hvidovre, Denmark.
Test report No. PGB10158A rev.0 dated 06 January 2022 from DBI, Hvidovre, Denmark.
Test report No. PGB10133A rev.1 dated 11 January 2022 from DBI, Hvidovre, Denmark.
Test report No. PGB10143A rev.0 dated 03 January 2022 from DBI, Hvidovre, Denmark.

Drawing No. +24PC00425.02 rev.02 dated 26 November 2021 from manufacturer.
Drawing No. +24PC00363.02 rev.02 dated 26 November 2021 from manufacturer.
Drawing No. +24PC00426.02 rev.02 dated 14 December 2021 from manufacturer.
Drawing No. +24PC00421.01 rev.01 dated 20 October 2021 from manufacturer.
Drawing No. +24PC00423.02 rev.02 dated 26 November 2021 from manufacturer.

Tests carried out
Tested according to IMO 2010 FTP Code Part 3 and Part 3 Annex 4.

Marking of product

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