EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00007X5

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

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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
The ceiling panels were made of 0.7 mm steel sheet having maximum width of 600 mm. The panels were insulated using mineral wool designated Paroc Marine Fire Slab 140 with a nominal density of 140 kg/m^3 and and thickness 35 mm. The mineral wool insulation of ceiling panel can be obtained by joining two adjacent pieces. The unexposed face of the mineral wool insulation was covered by a glass fiber sheet designated N5. The insulation was adhered to the steel sheet using self-contained polyurethane glue designated Sika Force 7110, 70 g/m^2.

Max panel thickness: 35 mm

An intermediate support to the ceiling consisting of two T-profiles perpendicular to each other is allowed to be used.

For panel width greater than 300 mm and up to 600 mm and length greater than 1700 mm:
The ceiling panels were secured to the B-class bulkhead along all the edges by placing the ceiling panels into the perimetral profile and screwing the ceiling panels into the bulkhead panels using self-tapping screws Ø3.9 mm with a c/c distance of 450 mm. The panels were fixed together along the longitudinal joints with self-tapping screws Ø3.9 mm with a c/c distance of 450 mm. The transverse joints were made along the ceiling supporting profile. The ceiling panels on each side of the supporting profile were secured to each other by using self-tapping screws Ø3.9 mm with a c/c distance of 450 mm going from one ceiling panel, through the supporting profile and into the ceiling panel on the other side.

For other panels than stated above:
The ceiling panels were secured to the B-class bulkhead along all the edges by placing the ceiling panels into the perimetral profile. The panel is not joined with the next with any screws and is not fixed to the perimetral profile.

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

Maximum panel size: 4280 mm x 600 mm (L x W).

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 Appendix 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).