

# EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:  
**MEDB000086S**

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)

**TNF-C64 Type B-15 class ceiling (with HAVC and Downlight) and A class deck core compound structur**

Issued to

**INEXA Interiors (Nantong) Co., Ltd.**  
**Nantong City,, Jiangsu Province,, China**

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

Regulation **(EU) 2022/1157,**

**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**

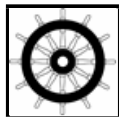
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2027-10-31.**

Issued at **Høvik** on **2022-11-01**

DNV local station:  
**Nantong**

Approval Engineer:  
**Timo Linn**



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

"TNF-C64 Type B-15 class ceiling (with HAVC and Downlight) and A class deck core compound structure"

The structure of the plate was composed of 0.56 mm thick galvanized steel plate + rock wool + 0.56 mm thick galvanized steel plate. The total thickness of the ceiling panel is 40 mm. The galvanized steel plate and rock wool were bonded together with an adhesive of approved type. The butt joint of the plate was an H-type connector, which was bent from 0.56 mm thick galvanized steel plate. See Figure 2- 3 in the test report.

The assembled ceiling was installed inside an enclosure made of angle steel with the specification of L 75 x 75 x 6mm, and a press frame made of angle steel with the specification of L63 x 63 x 3mm was set around the upper side of the enclosure. The press frame and the enclosure were connected by intermittent welding. After the fabrication of ceiling and deck samples, the four corners and middle of the ceiling were connected with the deck bottom with angle steel, and the ceiling is hung under the deck.

The side with connecting strip at the butt joint was the exposed side.

The panels may be fitted with:

Ventilation Unit HAVC: HMM-125 type, made of thin galvanized zinc steel plate and produced by Halton Ventilation (Shanghai) Co.,Ltd. The extremal size of HAVC was 615 mm x 664 mm x 240mm, the opening size on the rock wool plate for installation of HAVC was 514 mm x 616 mm. HAVC was fixed on the unexposed side of compound rock wool panel with M4 tapping screws on the flanges around and self-plugging rivet. There was no insulation material on the surface of the unexposed face and side surface around the HAVC.

Down Light: Type DL60 LED downlight, the external size was 374mmx 168mmx 126mm. The size of the opening for the installation of the light on the rock wool panel was 155 mm in average. The light was fixed on the unexposed face of the plate by M4 tapping screws. A cover made of 2 layers of 3.5 mm thick glass wool blanket with aluminum foil cloth on the surface of one side was put on the unexposed face of light to fully cover the light. The external size of the cover was 450 mm long x 200 mm wide x 200 mm high x 7 mm thick. The cover was fixed on the unexposed face of plate through aluminum foil tape around and 12 M4 tapping screws.

For further details, see drawing and test report listed under Type Examination documentation below.

## Application/Limitation

Approved for use as a horizontal fire retarding division of class B-15.

The ceiling mounted below and in combination with a steel structural deck may be regarded as a Class A-15 horizontal division. The air gap is not to be less than 420mm.

Maximum ceiling panel length 3000 mm

Maximum ceiling panel width 600 mm

Maximum ceiling size 3000 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.

Insulation: Rock Wool 40 mm nominal thickness and 150 Kg/m<sup>3</sup> density manufactured by Weihai Boeheng Advanced Materials.

Adhesive: ICEMA R 145/12 manufactured by H.B.Fuller Adhesives Co., Ltd.

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

## Type Examination documentation

### Tests carried out

Tested according to IMO 2010 FTP Code part 3.

### 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).