

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

with type designation(s)

TNF-C72 Type Class B15 Ceiling (with B15 cover for downlight, loudspeaker)

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) 2020/1170,**

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

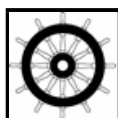
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2025-10-21.**

Issued at **Høvik** on **2020-10-22**

DNV GL local station:
Nantong

Approval Engineer:
Tessa Biever



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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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



LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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-C72 Type Class B-15 Ceiling (with B15 cover for downlight, loudspeaker)"

is a ceiling composed of upper and lower panels. The upper panels consist of 29 mm thick mineral wool of type 'ABM-SR' (density 150 kg/m³, manufactured by Shanghai ABM Rock Wool Co., Ltd) with 0.56 mm steel sheets on both sides. The lower panels consist of 20 mm thick mineral wool of type 'ABM-SR' (density 150 kg/m³, manufactured by Shanghai ABM Rock Wool Co., Ltd) with a 0.56 mm steel sheet on the lower side. The upper and lower panels are connected by means of pop rivets (Ø3.2 mm rivet c/c 300 mm). The upper panels are joined by hooks while the lower panels have a spacing of 25 mm.

The ceiling frame is made of angle bars, where the upper part is surrounded by an angle steel pressure frame. The enclosed ceiling frame and the pressure frame is connected by means of intermittent welding.

The panels are hung beneath the structural steel deck with ⊥ shaped hanging joints made of 1 mm thick steel. The panels are fastened to the hanging piece with M4.2 screws. Maximum spacing between hanging pieces is 2400 mm. There is a 420 mm air gap between ceiling and deck.

Total panel thickness: 50 mm

The ceiling may be fitted with:

1. Downlight of type DL60 LED, manufactured by Glamox of dimensions 374 mm x 126 mm (W x H) with external size Ø188 mm and Ø155 mm opening in panel.
2. Loudspeaker of type G-SPK_11, manufactured by GICOM with external size Ø170 mm x 114 mm high and Ø145 mm opening in panel.

The downlight and loudspeaker are fixed on the exposed side of the panel by means of M4 screws. On the unexposed side, a 3.5 mm thick glass cotton blanket case of type VitriBond Marine (density 220 kg/m³, manufactured by Culimeta Textilglas-Technologie GmbH & Co. KG) with aluminium foil cloth is covered around the loudspeaker and downlight casing. The case is fixed to the unexposed side of the panel by means of aluminium foil tape and 16xM4 screws.

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

Application/Limitation

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

Maximum panel size: 600 mm x 3000 mm (W x H).

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 maintenance.

Type Examination documentation

Tests carried out

Tested according to IMO 2010 FTP Code part 3.

Marking of product

The product 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).