



EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:
MEDB000090S

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

This is to certify:

that the **A & B Class divisions fire integrity: B class divisions.**

with type designation(s)
HL-T50AG-I Type Class B-15 Ceiling

issued to

Tianjin Huali Thermal Insulation Building Material Co., Ltd.
TIANJIN, China

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

Regulation (EU) 2023/1667,
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

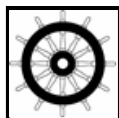
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2029-06-19**.

Issued at **Hamburg** on **2024-06-20**

DNV local unit:
Dalian NB & CMC

Approval Engineer:
Helge Bjørnarå



Notified Body
No.: **0098**

for **DNV SE**

Mydlak-Röder, Christine
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 European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment", signed February 27th, 2004, and amended by Decision No 1/2023 dated May 26th, 2023.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

"HL-T50AG-I Type Class B-15 Ceiling", composed of panels consisting of two layers of 24.1 mm rock wool THY-150 (density 150 kg/m³, manufactured by Tianjin Huali Thermal Insulation Building Material), with 0.6 mm galvanized steel plate between layers, covered with 0.6 mm galvanized steel plates on both sides. The insulation is glued to the steel plates by an adhesive.

Total thickness of the ceiling panel: 50.0 mm.

The panels are connected longitudinally by wedges (18.5 mm depth) and fastened to the deck by T type beam hanging profiles. The panels are fixed by rivets Ø4x12 to the hanging profile with section size 71 mm x 40 mm (H x W), bent by 1.0 mm and 0.6 mm galvanized steel plates.

Maximum distance between hanger sets: 1000 mm.

Maximum distance between main T type beams: 2490 mm.

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

Application/Limitation

Approved for use as a continuous B-15 class ceiling.

Maximum panel size: 600 mm x 2490 mm (W x L).

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

Test report No. FT22010 dated 7 February 2022 from Far East Fire Testing Centre (FEFTC), Shanghai, China.

Drawing No. HL-T50AG-I-00 dated August 2021 from manufacturer.

Drawing No. HL-T50AG-I-01 dated August 2021 from manufacturer.

Drawing No. HL-T50AG-I-02 dated August 2021 from manufacturer.

Drawing No. HL-T50AG-I-03 dated August 2021 from manufacturer.

Drawing No. HL-T50AG-I-04 dated August 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, the MED Mark of Conformity and USCG approval number if applicable (see first page).