

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 "B" Class divisions, fire integrity

with type designation(s)
T50H Ceiling Panel

Issued to

Huanan Building Materials (Shenzhen) Co., Ltd.
Shenzhen, Guangdong, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773**,
item No. MED/3.11b. SOLAS 74 as amended, Regulation II-2.3.4 & II-2/9 and IMO 2010 FTP Code

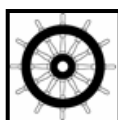
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2024-08-19**.

Issued at **Høvik** on **2019-08-20**

DNV GL local station:
China South NB

Approval Engineer:
Synnøve Bolstad Eri



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.



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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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



Product description

"T50H Ceiling Panel"

is a continuous ceiling made of 300 mm wide panels. Each panel is composed of a 50 mm thick layer of insulation, density 80 kg/m³ (manufactured by Rockwool Firesafe Insulation Co., Ltd) and a 0,55 mm thick steel sheet on exposed side. Panels are joined together by screws. The class B-15 ceiling is suspended under a A class structural steel core with an airgap of 260 mm.

Total panel thickness is 50,55 mm.

The panels are fastened to transverse girders. Maximum distance between girders is 1200 mm. Maximum free span of girders is 2600 mm.

The ceiling panels may be fitted with:

- A ceiling hatch with maximum clear opening 575 x 575 mm. The hatch leaf is 50 mm thick made of 0,55 mm thick steel plate + 48,9 mm thick rock wool insulation layer + 0,55 mm thick steel plate. The hatch frame is made of 1,55 mm thick steel plates. Maximum hatch weight including frame: 12 kg.
- Cabin light fitting of type CYQ2216A (by Hule Electric Equipment Manufacture Co., Ltd.) or equivalent. The cabin light is fitted with a 50 mm thick protecting cap composed of 0,55 mm thick still plate and 49,45 mm thick insulation layer. Maximum size of ceiling cut out is 655 x 275 mm.
- Down light of type CWTD-6C (by Wuhu Ship Machine Co., Ltd) or equivalent. The down light is fitted with a 50 mm thick protecting cap composed of 0,55 mm thick still plate and 49,45 mm thick insulation layer. Maximum size of ceiling cut out is Ø175 mm.
- AC unit of type CUS-35 (by Johnson Controls Denmark APS) or equivalent. Maximum size of ceiling cut out is Ø175 mm. Maximum weight: 12 kg.
- Sprinkler nozzles and a smoke detectors. Maximum size of ceiling cut out is Ø20 mm for the nozzle and Ø107 mm for the smoke detector.

For further details regarding fastening arrangement and insulation etc. see drawings listed under Type Examination documentation below.

Application/Limitation

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

Maximum size of panels: 300 x 2990 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 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).



Job Id: **344.1-004337-4**
Certificate No: **MEDB00005M1**