

EC-TYPE EXAMINATION CERTIFICATE

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive 2013/52/EU, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. This Certificate is issued by DNV GL AS under the authority of the Government of the Kingdom of Norway.

This is to certify:

That the "B" Class divisions, fire integrity

with type designation(s)

T50F(I) Type Continuous Class B-15 Ceiling

Issued to

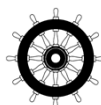
**Huanan Building Materials (Shenzhen) Co., Ltd.
Shenzhen, China**

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

Annex A.1, item No. A.1/3.11b and Annex B, Module B in the Directive. SOLAS 74 as amended, Regulation II-2.3.4.4. and IMO 2010 FTP Code.

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

Høvik, 2015-08-03
for **DNV GL AS**



This Certificate is valid until
2020-08-02

Notified Body No.: **0575**

Petter Langnes
Head of Department

DNV GL local office:
China South CMC/ SIO

Piotr Orzechowski
Surveyor

Product description

"T50F(I) Type Continuous Class B-15 Ceiling"

composed of panels suspended below the structural deck. Panels composed of two 25 mm thick layers of rock wool manufacturer by Rockwool Firesafe Insulation (Guangzhou) Co., Ltd. (80 kg/m³) cover with 0.55 mm thick galvanized steel sheets on both sides.

Along the panels are joined together by "A type keel" connections made of 0.475 mm galvanized steel and across the panel with "38 main keel" made of 1.2 mm galvanized steel.

The ceiling is connected to deck with hanger set of maximum distance between each other 1200 mm (longitudinal) and 600 mm (transverse).

Total ceiling thickness is 50 mm.

For further details, see drawing mentioned under Type Examination documentation below.

Application/Limitation

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

Maximum size of panels: 600 x 600 mm (length x width).

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 or packing is to be marked with name of manufacturer, type designation, fire-technical rating, Mark of Conformity and USCG marking when required (see below).

Mark of Conformity

The manufacturer is allowed to affix the Mark of Conformity according to Article 11 in the Council Directive 96/98/EC on Marine Equipment and shall issue a Declaration of Conformity, only when the module D or E or F of Annex B in the same directive is fully complied with.

Module D: The quality system for production and testing shall be approved by the Notified Body.

Module E: The quality system for inspection and testing shall be approved by the Notified Body.

Module F: Compliance of the products to type as described in this EC Type-Examination Certificate must be verified by the Notified Body who also shall issue a Certificate of Conformity.

USCG Approval

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.