

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB000081U

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 Fire Doors

with type designation(s)
B-15 Firedoor DdB(LE+) Double leaf

Issued to

Antti-Teollisuus Oy
Kanunki, Finland

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

Regulation (EU) 2021/1158,
item No. MED/3.16. SOLAS 74 as amended, Regulation II-2/9, IMO 2010 FTP Code and IMO MSC.1/Circ.1511,
IMO MSC.1/Circ.1319

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

This Certificate is valid until **2027-05-23**.

Issued at **Høvik** on **2022-05-24**

DNV local station:
Finland NB

Approval Engineer:
Tessa Biever



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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

"B-15 Fire door DdB(LE+) Double leaf"

A double leaf hinged steel door in a steel door frame.

Both the active and passive door leaf is composed of a 60 mm thick multilayer insulation core (composed of a 24 mm thick layer of type 'Isover ULTIMATE U Sea Protect Slab 66' with nominal density of 66 kg/m³ (manufactured by Saint-Gobain Isover G+H AG) in the middle with on both sides a 18 mm thick stone wool slab of type 'Paroc Marine Slab 220' with nominal density of 220 kg/m³ (manufactured by Paroc Group Oy)). On both sides of this multilayer core a 0.7 mm thick perforated steel sheet was glued with Kestopur PL 5-10 (manufactured by Kiilto Oy). The perforation Ø is 7 mm with a c/c of 40 mm in both vertical and horizontal direction.

Total thickness of door leaf: 60 mm (compressed core).

There was a 73 mm thick horizontal top part (top panel) of the frame, which extended from the top edge of the door leaves to the horizontal top edge of the frame, totaling 272/252 mm in height. The top panel was made of a 70 mm insulation core of stone wool of type 'Paroc Marine Slab 220' with the nominal density of 220 kg/m³ (manufactured by Paroc Group Oy) with on both sides a 1.5 mm thick steel sheet. The insulation was not glued to the steel sheets. The top edge of the door leaves was insulated with 56 mm thick layer of type 'Paroc Marine Slab 160' with nominal density of 160 kg/m³ (manufactured by Paroc Group Oy).

The active door leaf was equipped with the following hardware:

- Latch lock
- Door eye in the upper part of the door leaf

The passive door leaf was equipped with following hardware:

- Shoot-bolt lock + control lock + rod guide plate (A self-locking version in passive door leaf with spring-loaded vertical rods at the top and bottom)
- Flush handle

Both door leaves have 3 pcs of hinges.

The door frame profiles 20 x 73 x 40 mm were made of 1.5 mm thick steel and the inner cavity of the frames was uninsulated. The door frame was mounted to the bulkhead's steel profiles with screws 4.8 x 19 mm, six (6) screws per vertical edge of the frame. The door frame may also be welded to the bulkhead.

The top panel was fixed to the vertical parts of the frame by screws and rivets.

For further details, see the test report and drawings mentioned under Type Examination documentation below.

Application/Limitation

The door is approved for installation in steel bulkheads of class B-15. Installation of the door in bulkheads made of other materials (aluminium, FRP etc.) are subject to case-by-case approval.

Max. clear opening:	2000 x 2102 mm (W x H)
Max. size of active/passive door leaf:	1015 x 2116 mm (W x H)

The insulation materials and adhesives used have to be approved according to the Marine Equipment Directive and bear the MED Mark of Conformity. This requirement may also be applicable for surface materials used, if required by relevant rules and regulations.

A fire door of marginally larger dimensions than a fire-tested fire door may be individually assessed and accepted by Flag Administration (or Recognized Organization acting on its behalf) for a specific project with the same classification, provided documented compliance with IMO MSC.1/Circ.1319.

Note that this is a fire safety certificate which only covers fire technical properties (i.e. not to cover strength evaluations related to watertightness, weathertightness, etc.).

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

Type Examination documentation

Test report No. EUFI29-21005909-T1 dated 1 April 2022 from Eurofins Expert Services Oy, Espoo, Finland.

Drawing Nos.:

- D933880 Version 0, dated 13 December 2021 from maker
- D933943 Version 0, dated 17 December 2021 from maker
- D933944 Version 0, dated 17 December 2021 from maker
- D933946 Version 0 (2 pages), dated 17 December 2021 from maker
- D933972 Version 0, dated 20 December 2021 from maker
- D933973 Version 0, dated 20 December 2021 from maker
- D933977 Version 0, dated 20 December 2021 from maker
- D933978 Version 0, dated 20 December 2021 from maker

Tests carried out

The door has been successfully tested for extended test period of 37 minutes.

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).