

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00002G4
Revision No:
3

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

with type designation(s)

Grenamat A – Bulkhead B-class

Issued to

GRENA, a.s.

Veselí nad Lužnicí 1, Czech Republic

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

Regulation **(EU) 2021/1158**,

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 **2027-05-31**.

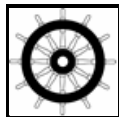
Issued at **Høvik** on **2022-07-01**

DNV local station:

Ostrava

Approval Engineer:

Helge Bjørnarå



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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

Grenamat A – Bulkhead B-class,
This certificate covers the following two panel variants.

Variant 1

Panels composed of 19 mm thick vermiculite boards of type “Grenamat A” (nominal density of 750 kg/m³, manufactured by GRENA). The panels are joined by groove and tongue joints (galvanized steel-spline, cross section: 3x25 mm) or galvanized steel Ω profiles (cross section: 30x10x10x0.8 mm, Ω profiles are screwed together with 4.2x25 mm screws with maximum spacing 300 mm).

Variant 2

Panels composed of 19 mm thick vermiculite boards of type “Grenamat A” (nominal density of 600 kg/m³, manufactured by GRENA). The panels are joined by groove and tongue joints (galvanized steel-spline, cross section: 3x25 mm).

Both variants may be faced on both sides with 0.8 mm HPL* foil glued to the board.

Total panel thickness w/o HPL: 19.0 mm
Total panel thickness w/ HPL*: 20.6 mm

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

Application/Limitation

Panels made of “Grenamat A” boards of nominal density 750 kg/m³ (variant 1), w/w/o HPL* foil, are approved for use as a vertical fire retarding division of class B-15.

Panels made of “Grenamat A” boards of nominal density 600 kg/m³ (variant 2), w/w/o HPL* foil, are also approved for use as a vertical fire retarding division of class B-0.

Maximum size of panel (w/o HPL): 1220 x 2440 mm (W x H)
Maximum size of panel (w/ HPL*): 1220 x 3050 mm (W x H)

* The HPL foil is a combustible veneer; Hence its use shall satisfy SOLAS II-2/5.3.2 (maximum calorific value, total volume of combustible materials, low flame-spread characteristics and smoke generation potential and toxicity as applicable).

The boards, veneer, surface materials and adhesive 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.

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

Type Examination documentation

Variant 1

Test report No. Pr-17-2.057n-En dated 2 May 2017 from PAVUS, Veselí nad Lužnicí, Czech Republic.
Test report No. RS-21/B-488/E dated 25 April 2022 from CTO, Gdansk, Poland.
Test report No. RS-22/B-216/E dated 14 June 2022 from CTO, Gdansk, Poland.

Dwg. No. 204-M-2021-0511 dated 22 October 2021 from manufacturer.
Dwg. No. 204-M-2022-0539 dated 4 May 2022 from manufacturer.

Variant 2

Test report No. Pr-19-2.154n-En dated 16 September 2019 from PAVUS, Veselí nad Lužnicí, Czech Republic.
Test report No. RS-22/B-077/E dated 4 May 2022 from CTO, Gdansk, Poland.

Dwg. No. 204-M-2022-0530 dated 18 January 2022 from manufacturer.

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 and address of manufacturer, type designation, fire-technical rating, MED Mark of Conformity and USCG marking if applicable (see page 1).