



Marine & Offshore

Certificate number: 68572/A0 BV

File number: AC11360/040/001

Product code: 5225H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

*This certificate is issued to***ROHHE Sp. z o . o.**

Tarczyn - POLAND

for the type of product

THERMAL INSULATION MATERIALS FOR PIPING

r.Ocean@LA (3-8)

r.Ocean@PA (3-8)

r.Ocean@BA (3-8)

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships Part C, Chapter 4,
 SOLAS 74 Convention, as amended, Regulations II-2/3, II-2/5, II-2/6, II-2/9 & X/3
 IMO Res. MSC.36(63) -(1994 HSC Code)- as amended, 7
 IMO Res. MSC.97(73) -(2000 HSC Code)- as amended, 7
 IMO Res. MSC.307(88) -(2010 FTP Code)-
 IMO MSC/Circ.1120 as amended by MSC.1/Circular 1436

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 08 Feb 2027**For Bureau Veritas Marine & Offshore,**

At BV KATOWICE, on 08 Feb 2022,

Wojciech Lubojanski



This certificate is recognized by Transport Canada

This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

1.1 - r.Ocean®LA (3-8)

Mineral wool lamella with facing (aluminum foil reinforced with a glass fiber mesh and coated with polyethylene). Wool has fibers perpendicular to the insulated surface.

Mineral wool nominal density: 35 kg/m³ (± 10%)

Product thickness: 12 - 100 mm (± 10%)

1.2 - r.Ocean®PA (3-8)

Round rock lagging made of mineral wool, covered with a cladding (aluminum foil reinforced with a glass fiber mesh and coated with polyethylene). It has a longitudinal arrangement of fibers that gives the product stiffness.

Mineral wool nominal density: 35 kg/m³ (± 10%)

Diameter of protected pipes: 15 - 273 mm

Product thickness: 20 - 120 mm

1.3 - r.Ocean®BA (3-8)

Mineral wool board with facing (aluminum foil reinforced with a glass fiber mesh and coated with polyethylene).

Mineral wool nominal density: 35 kg/m³ (± 10%)

Product thickness: 20 - 300 mm

2. DOCUMENTS AND DRAWINGS:

Technical data sheet "Products from the group r.Ocean®" dated 05/10/2021.

3. TEST REPORTS:

Test reports from West Pomeranian University of Technology in Szczecin, Materials Fire Properties Testing Laboratory, Poland:

3.1 - Non-combustibility of mineral wool: Test report N° TZ/FTP-1a/137/2021 dated 29/12/2021 and its annex dated 18/01/2022, as per IMO 2010 FTP Code Annex 1 Part 1.

3.2 - Surface flammability: Test reports N° TZ/FTP5a/116/2021 dated 10/11/2021 (thickness 12 mm) and N° TZ/FTP5a/084/2020 dated 07/07/2020 (Thickness ≥ 50 mm:), as per IMO 2010 FTP Code Annex 1 Part 5.

4. APPLICATION / LIMITATION:

4.1 - The fitting aboard should be the same as used for the test.

4.2 - Approved material is considered as having low flame spread characteristics (as per IMO 2010 FTP Code Part 5).

4.3 - In application of FTP Code 2010 Annex 2 § 2.2, the product is expected to satisfy the requirement of smoke & toxicity of IMO 2010 FTP Code Part 2 without further testing.

4.4 - In application of FTP Code 2010 Annex 2 § 2.3, the product is expected to satisfy the requirement of maximum gross calorific value (e.g. 45 MJ/m²) without further testing as per ISO 1716.

4.5 - Approved for use as insulating material in refrigeration systems and chilled water piping for air-conditioning systems.

4.6 - The products are also approved as insulating material in heating, ventilation and sanitary systems.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The **r.Ocean® thermal insulation materials for piping (r.Ocean®LA (3-8), r.Ocean®PA (3-8) and r.Ocean®BA (3-8))** are to be supplied by **ROHHE Sp. z o.o.** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **ROHHE Sp. z o.o.** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **ROHHE Sp. z o.o.** has declared to Bureau Veritas the following production site:

ROHHE Sp. z o.o.
Krakowska 19a
05-555 Tarczyn
POLAND

6. MARKING OF PRODUCT:

The product or packing is to be marked with Manufacturer name, type, designation and fire-technical rating.

7. OTHERS:

It is **ROHHE Sp. z o.o.**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

***** END OF CERTIFICATE *****