

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Surface Material of Low Flame Spread

with type designation(s)
Novum Marine ETFE System

Issued to
NOVUM Membranes GmbH
Edersleben, Germany

is found to comply with

Application :

Low flame spread surface material, not generating excessive quantities of smoke nor toxic products in fire.

This certificate is recognized by Transport Canada.

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Høvik** on **2023-02-16**

This Certificate is valid until **2028-02-15**.

for **DNV**

DNV local unit: **Hamburg – CMC North/East**

Approval Engineer: **Timo Linn**

Jowita Permoda
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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

"Novum Marine ETFE System" consists of a welded multi-layer ETFE foil with air cushions.

Foil thickness: 0.3 mm
Air gap: varying
Area Density: 0.5 Kg/m²

For further details see the drawing listed under Type Approval documentation below.

Application/Limitation

Approved for use as low flame spread material, not generating excessive quantities of neither smoke nor toxic products in fire.

Tested colour: Grey
Organic content: 100 %

Approved for use as decorative veneers on non-combustible substrate with a greater thickness than 0.375 mm.

Any adhesive used, other than the one used during testing, has to be tested for low flame spread characteristics according to IMO FTP Code Part 5.

The product satisfies the requirement for maximum calorific value (ref. SOLAS Chapter II-2, Reg. 5.3.2.2) without further testing.

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

Type Approval documentation

Certification in accordance with Class Programme DNV-CP-0338, September 2021.

Test Report No. 8120731447-10 dated 08 October 2022 from DMT, GmbH & Co. Kg, Dortmund, Germany.

Tests carried out

Tested according to IMO 2010 FTP Code Part 5 and Annex 2 item 2.2 and item 2.3.

Marking of product

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

Transport Canada Approval

Based on the procedures laid down in the Transport Canada Publication entitled "Procedures for Approval of Life-Saving Appliances, Fire Safety Systems, Equipment and Products (TP14612)", DNV confirms that the product/s listed in this certificate is/are in accordance with Transport Canada's requirements.

Periodical assessment

DNV's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Programme DNV-CP-0338, Section 4.