

TYPE APPROVAL CERTIFICATE**This is to certify:****That the Class A Bulkhead**

with type designation(s)

Fyrewrap® Marine Blanket Class A-60 Bulkhead (Type 2)

Issued to

**Unifrax(Suzhou) Co., Ltd.
Suzhou, China**

is found to comply with

DNV GL offshore standards**DNV GL rules for classification – Ships****DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations****Application :****Approved for use as fire retarding division of class A-60****Restricted application: Fire against insulated side****This certificate is recognised by Transport Canada.****Product approved by this certificate is accepted for installation on all vessels classed by DNV GL.**This Certificate is valid until **2021-06-23**.Issued at **Høvik** on **2016-06-24**DNV GL local station: **Shanghai**Approval Engineer: **Tomasz Werchowicz**for **DNV GL**

**Petter Langnes
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.

Job Id: **262.1-017901-5**
Certificate No: **TAF00000BH**

Product description

"Fyrewrap® Marine Blanket Class A-60 Bulkhead (Type 2)"

Composed of a steel bulkhead, 5 mm, insulated with a layer of 38 mm thick "Fyrewrap® Marine Blanket" of density 96 kg/m³ covers between and upon the stiffeners.

Anchoring of insulation to the bulkhead is arranged with steel pins and washers (22 set/m²).

Total thickness is 43 mm.

For further details, including spacing of welded pins and pinning in connection with joints, see test report listed under Type Approval documentation below.

This product can be manufactured at:

- Unifrax(Suzhou) Co., Ltd. – address: No. 51 Shiyang Road, New District, Suzhou City 215151, Jiangsu Province, China
- Unifrax UK – address: Mill Lane, Rainford, St.Helens, Merseyside, WA118LP, United Kingdom
- Unifrax France – address: 17 Rue Antoine Durafour, BP2, 42420 Lorette, France
- Unifrax India – address: 99 k Stone Ahmedabad Surendrangar Hwy Lakhtar, Dist. Surendrangar, 382 775 Gujarat, India
- Unifrax Brasil Ltda – address: Avenida Independencia, 7033 Bairro Sao Matheus Vinhedo, SP13280-000, Brazil
- Unifrax Inc LLC (New Carlisle) – address: 54401 Smilax Road, New Carlisle, Indiana 46552, United States of America

Application/Limitation

Any surface materials used have to be approved for smoke and toxicity and low flame-spread characteristics (IMO 2010 FTP Code Annex 1 Parts 2 and 5) when required according to relevant rules.

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

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, October 2015.

Test report No. FT10124 dated 08 April 2010 from Far East Fire Testing Centre (FEFTC), Shanghai, China.

Tests carried out

Tested according to IMO FTPC Part 3 and in compliance with IMO 2010 FTP Code Ch.8.

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 "Approval Procedures for, Life Saving Equipment and Structural Fire Protection Products (TP 14612)", DNV GL confirms that the product/s listed in this certificate is/are in accordance with Transport Canada's requirements.

Periodical assessment

DNV GL'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 DNVGL-CP-0338, Section 4.