

# TYPE APPROVAL CERTIFICATE

---

**This is to certify:**

**That the Class A Bulkhead**

with type designation(s)  
**FyreWrap LT**

Issued to

**Unifrax Limited**  
**ST. HELENS, United Kingdom**

is found to comply with  
**Det Norske Veritas' Offshore Standards**  
**Det Norske Veritas' Rules for Classification of Ships**  
**Det Norske Veritas' Interpretation of SOLAS 1974 Convention as Amended**

---

**Application :**

**Approved for use as fire retarding division of class A-60.**

**This certificate is recognized by Transport Canada.**

This Certificate is valid until **2019-06-30**.

Issued at **Høvik** on **2015-02-02**

DNV GL local station: **Manchester**

Approval Engineer: **Martin Gjelstad**

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.

Certificate No: **F-20942**  
File No: **471.11**  
Job Id: **262.1-018245-1**

## Product description

"FyreWrap LT"

Composed of a steel bulkhead insulated with 50 mm FyreWrap LT Blanket, with density 64 kg/m<sup>3</sup> from Unifrax Limited, between the stiffeners. In addition one layer of 25 mm insulation, of the same type, was fitted horizontally over the first layer of insulation and the stiffeners.

The insulation is fasten with Ø3 mm steel pins and Ø38 mm washers (about 14 set/m<sup>2</sup>). The maximum distance between pins is 350 mm. Maximum distance from pins to seams of top insulation is 125 mm.

For further details see drawing mentioned under Type Approval documentation below.

The products may be manufactured at the premises of:

- Unifrax Limited, St. Helens, United Kingdom.
- Unifrax France, Lorette, France.

## 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 Standard for Certification No. 1.2, Type Approval, January 2013.

Test report No. FT14160 dated 19 June 2014 from Far East Fire Testing Centre (FEFTC), Shanghai, China.

Drawing no. FP-14011 rev. A dated June 2014 from Unifrax (Suzhou) Ltd.

## 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 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)*", Det Norske Veritas 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 Standard for certification No. 1.2 Type Approval Item 4.