

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

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 GL AS under the authority of the Government of Norway.

This is to certify:

That the "A" Class divisions, fire integrity

with type designation(s)

FyreWrap Blanket (Insulfrax S) - Class A-60 Aluminium Bulkhead (Restricted)

Issued to

Unifrax Ltd.

St. Helens, Merseyside, United Kingdom

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

Regulation **(EU) 2018/773**,

item No. MED/3.11a. SOLAS 74 as amended, Regulation II-2/3.2 & II-2/9, IMO 2010 FTP Code, IMO MSC/Circ.1120 and IMO MSC.1/Circ.1434

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2023-07-04**.

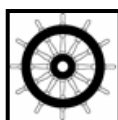
Issued at **Høvik** on **2018-07-05**

DNV GL local station:

Manchester

Approval Engineer:

Thorvald Furuseth



Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
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.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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



Product description

"FyreWrap Blanket (Insulfrax S) - Class A-60 Aluminium Bulkhead (Restricted)"
composed of a structural aluminium bulkhead insulated with one layer of 50 mm thick FyreWrap (Marine) Blanket (density 96 kg/m³) manufactured by Unifrax, applied on the aluminium structural core as well as on the stiffeners following their contours.

The blanket width is compressed from 610 to 600 mm and to be installed in 600 mm widths to form slight compressed butted joints.

The blankets are held in place by means of bi-metallic pins (comprised of Ø 3 mm steel pins mounted in aluminium bosses or ferrules welded to the plate) and retained using Ø 38 mm steel washers. The pins are to be installed with a nominal spacing of 200 mm across the blankets and max. 320 mm along the blankets, whereas pins at the joints between blankets shall have a nominal spacing of 100 mm from the blanket edge.

Application/Limitation

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

The product may also be used as fire resisting divisions on High Speed Craft.

Restricted application: Fire from insulated side only.

The insulation materials and adhesives used have to be approved according to the Marine Equipment Directive and bear the 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 and maintenance.

Type Examination documentation

Test report No. FT16341 dated 15 August 2016 from Far East Fire Testing Centre, Shanghai, China.
Drawing No. 152866 rev.1 "A60 Aluminium Bulkhead" dated 5 May 2015 from manufacturer.

Tests carried out

Tested according to 2010 IMO FTPC Part 3.

Marking of product

The product is to be marked with name and address of manufacturer, type designation, fire-technical rating, MED Mark of Conformity and USCG approval number if applicable (see page 1).