



CERTIFICATE OF FIRE APPROVAL

This is to certify that

The product(s) detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations for use on offshore installations classed with Lloyd's Register, and for use on offshore installations when authorised by contracting governments to issue the relevant certificates, licences, permits etc.

Manufacturer	Unifrax Limited
Address	Mill Lane Rainford St. Helens Merseyside, WA11 8LP United Kingdom (UK)
Type	H-60 DECK
Description	Steel Deck Insulated on the Underside with – Type: H-60 Deck “FyreWrap LT Blanket” AES wool insulation system
Specified Standard	UK Department of Energy Hydrocarbon Time/Temperature Relationship and IMO Resolution A.754(18) Performance Criteria

The attached Design Appraisal Document forms part of this certificate.

This certificate remains valid unless cancelled or revoked, provided the conditions in the attached Design Appraisal Document are complied with and the equipment remains satisfactory in service.

Date of issue 29 July 2018 Expiry date 28 July 2023

Certificate No. SAS F180146

Signed

Sheet No 1 of 3

Name

B. Geary
Surveyor to Lloyd's Register EMEA
A Member of the Lloyd's Register Group

Note:

This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Lloyd's Register of any modification or changes to the equipment in order to obtain a valid Certificate.

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



Lloyd's
Register

Lloyd's Register EMEA

71 Fenchurch Street, London, EC3M 4BS

Telephone 020 7423 2416 Fax 020 7423 2053

Email tass@lr.org

Page	2 of 3
Document number	SAS F180146
Issue number	1

DESIGN APPRAISAL DOCUMENT

Date 29 July 2018	Quote this reference on all future communications SOUTSO/SFS/TA/BG/WP32819674
----------------------	--

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F180146

This Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Exova Warringtonfire, Warrington, Cheshire, UK, Fire Test Report No. 325725 dated 4 April 2013.

CONDITIONS OF CERTIFICATION

1. When applied to the stiffened underside of a steel deck, the "FyreWrap LT" AES wool insulation system described below, may be considered as an "H-60 Deck" restricted to hydrocarbon fire risks on the underside of the deck
2. Consisting of: two roll layers of "FyreWrap LT" AES wool insulation (35mm thick, 70kg/m³ density), applied on the plate and over stiffeners, all joints to be staggered between layers by at least 240mm; all retained with 3mm diameter welded steel pins and spring washers, spaced at 250mm to 350mm along the roll and 240mm across the roll and at 50mm from all insulation joints and boundaries
3. "FyreWrap LT" AES wool insulation may be considered with alternative facing materials that have been tested for Low Flame Spread Characteristics
4. Application in each case to be approved by Lloyd's Register at the design stage
5. Production items are to be manufactured in accordance with a quality control system which shall be maintained to ensure that items are of the same standard as the approved prototype



Lloyd's
Register

Lloyd's Register EMEA

71 Fenchurch Street, London, EC3M 4BS

Telephone 020 7423 2416 Fax 020 7423 2053

Email tass@lr.org

Page 3 of 3
Document number SAS F180146
Issue number 1

DESIGN APPRAISAL DOCUMENT

Date 29 July 2018	Quote this reference on all future communications SOUTSO/SFS/TA/BG/WP32819674
----------------------	--

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F180146

PLACE OF PRODUCTION

Unifrax Limited
Mill Lane,
Rainford,
St. Helens
Merseyside, WA11 8LP
United Kingdom

Unifrax France
17 Rue Antoine
Durafour
F-42420 Lorette
France

Unifrax Inc LLC,
54401 Smilax Road,
New Carlisle,
Indiana 46552,
USA.



Ben Geary
Technical Manager
Statutory Fire & Safety
Southampton Technical Support Office, Marine & Offshore
Lloyd's Register EMEA

Supplementary Type Approval Terms and Conditions

This certificate and Design Appraisal Document relates to type approval, it certifies that the prototype(s) of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein, it does not mean or imply approval for any other use, nor approval of any products designed or manufactured otherwise than in strict conformity with the said prototype(s).