

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 units classed with Lloyd's Register, and for use on offshore units and onshore facilities 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
Type	H-120 Bulkhead (Hydrocarbon Fire Test)
Description	Steel Bulkhead insulated on one side with "FyreWrap® Blanket" (150mm thick, 128 kg/m3 density)
Trade Name	FyreWrap® Blanket
Specified Standard	Department of Energy Test Specification – Issue 1: January 1990, Time/Temperature Relationship and IMO Resolution A.754(18)

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 EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document and its supplementary Type Approval Terms and Conditions form 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.

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

Saji Abraham

Surveyor to Lloyd's Register EMEA
A member of the Lloyd's Register group

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DESIGN APPRAISAL DOCUMENT

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR21310617SF

This Design Appraisal Document forms part of the Certificate.

This Certificate is a Renewal of Certificate Number SAS F160264

APPROVAL DOCUMENTATION

BRE Testing, Garston, United Kingdom, Fire Test Report No. 228939, dated 12 July 2006.

CONDITIONS OF CERTIFICATION

1. Suitable for applications where the fire hazard is on either side of the bulkhead
2. Consisting of: Steel bulkhead insulated on one side with three layers of FyreWrap® Blanket (50mm thick, 128 kg/m³ density) insulation on the plate and two layers 50mm thick plus one-layer 25mm thick (all 128 kg/m³ density) over the stiffeners. All retained by welded steel pins 3mm diameter and 38mm diameter steel washers, spaced at 240mm centres and at 50mm from all edges of the upper insulation blanket
3. 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
4. The certificate holder is solely responsible for the products supplied under this Certificate and to ensure that their products, whether manufactured by themselves or their licensee manufacturers, if agreed by Lloyd's Register, are fully compliant with the relevant statutory regulations and Lloyd's Register Class rules as applicable and designed, manufactured and installed to the same quality and specifications as the prototype tested, including components that are designed and manufactured by third parties

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PLACE OF PRODUCTION

Unifrax UK
Mill Lane
Rainford
St. Helens
Merseyside, WA11 8LP
United Kingdom (UK)

Unifrax France
17 Rue Antoine Durafour
BP2
42420 Lorette
France

Unifrax India Private Ltd.
99k Stone
Ahmedabad Surendrangar Highway
Dist. Surendrangar Lakhtar, 382 775
Gujarat
India

Unifrax Brazil
Avenida Independencia 7033
Bairro Sao Matheus
Vinhedo, SP 13280-000
Brazil

Unifrax (Suzhou) Co. Ltd,
59 Shiyuang Road
Xushuguan New Zone, 215151
Suzhou China

Unifrax Inc. LLC
54401 Smilax Road
New Carlisle
Indiana 46552
United States of America



Saji Abraham
Senior Specialist
Fire & Safety, Statutory Discipline Team
UK&I 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).