


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 BULKHEAD (HYDROCARBON FIRE TEST)
Equipment Description	Steel Bulkhead Insulated on one side with Type: H-60 Class "FyreWrap LT" AES wool insulation system
Specified Standard	Testing meets the requirements of: IMO Resolution A.754(18) incorporating the NPD Hydrocarbon Time/Temperature Relationship.

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	26 November 2013	Expiry date	25 November 2018
Certificate No.	SAS F130254	Signed	
Sheet No	1 of 3	Name	M. Farrier 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.

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DESIGN APPRAISAL DOCUMENT

Date 26 November 2013	Quote this reference on all future communications MTES/TA/SFS/MF/WP14475311
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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F130254

This Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Exova Warringtonfire, Warrington, United Kingdom, Hydrocarbon Fire Test Report No. WF 325790, dated 22 May 2013.

CONDITIONS OF CERTIFICATION

1. When applied to the stiffened side of a steel bulkhead, the "FireWrap LT" AES wool insulation system described below, may be considered as an "H-60 Bulkhead" for hydrocarbon fire risks from either side of the bulkhead.
2. Consisting of: three layers of "FireWrap LT" AES wool insulation (40mm thick, 70kg/m³ density), first layer applied vertically on the plate between stiffeners, second and third layers applied horizontally over plate and stiffeners, with 150mm staggered joints between layers, all retained with 3mm diameter welded steel pins and spring washers, spaced at 295mm to 305mm horizontally, 240mm vertically and at 50mm from all insulation joints and boundaries.
3. For such non-combustible insulation materials the arrangements for this insulation system being fitted on the flat side of a bulkhead may also be considered for H-60 applications, subject to suitable fixing arrangements being separately approved by Lloyd's Register at the design stage.
4. "FireWrap LT" AES wool insulation may be considered with alternative facing materials that have been tested for Low Flame Spread Characteristics.
5. Application in each case to be approved by Lloyd's Register at the design stage.
6. 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.

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PLACE OF PRODUCTION

Unifrax Limited	Unifrax France
Mill Lane,	17 Rue Antoine
Rainford,	Durafour
St. Helens	F-42420 Lorette
Merseyside , WA11 8LP	France
United Kingdom	



Martin Farrier
Lead Specialist
Statutory Fire & Safety
London Design Support Office
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).

