

CERTIFICATE OF FIRE APPROVAL

This is to certify that

The product detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations and with the International Convention for the Safety of Life at Sea, (SOLAS), 1974, as amended, for use on ships and offshore installations classed with Lloyd's Register, and for use on ships and offshore installations when authorised by contracting governments to issue the relevant certificates, licences, permits etc.

Manufacturer	Rockwool International A/S
Address	Hovedgaden 501 2640 Hedehusene Denmark
Type	A-30 BULKHEAD
Description	Fire-Resisting 'A' Class Bulkhead - Type "Steel Bulkhead A30 with SeaRox FB6020 / SeaRox FB6050/SeaRox FM 6030 ALU"
Specified Standard	IMO Res. MSC.307(88) - (2010 FTP Code) Annex 1 Part 3

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 3 May 2017 Expiry date 2 May 2022

Certificate No. SAS F170082

Signed



Sheet No 1 of 3

Name

B. McDonald
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.



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DESIGN APPRAISAL DOCUMENT

Date 5 June 2017	Quote this reference on all future communications SOUTSO/SFS/TA/BM/WP29092869
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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F170082

This Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Danish Institute of Fire and Security Technology, Jernholmen 12, DK-2650 Hvidovre, Denmark; Test Report No. PGA10658 dated 4th May 2015

CONDITIONS OF CERTIFICATION

1. When used in conjunction with an approved A Class bulkhead
2. Consisting of: steel bulkhead insulated with one layer of (70mm thick, 40 kg/m³ density) "SeaRox FB 6020" applied on the steel plate and retained by steel pins and washers at maximum 300mm horizontal x 250mm staggered vertical centres and 120mm from insulation joints with 2 pin rows, 130mm from insulation joints with 1 pin rows. Stiffeners insulated with two layers of (30mm thick, 70 kg/m³ density) "SeaRox FB 6050" inside stiffeners, and one layer of (30mm thick, 70 kg/m³ density) "SeaRox FB 6050" surrounding the outside of the stiffeners in 3 strips of 65mm, 65mm and 130mm width. Insulation strip mounted on external face of stiffener parallel to bulkhead face retained with steel pins and washers at 300mm centres. Steel pins 3mm diameter, steel washers 30mm diameter or
3. Two layers of 30 mm thick SeaRox FM 6030 ALU (50 kg/m³ density) on the plate and one layer of 30 mm thick SeaRox FM 6030 ALU (50 kg/m³) on the stiffener, one layer of the matt being arranged vertically on the plate and one layer being arranged horizontally on the plate and on the stiffener. The insulation is retained at 500mm centres vertically and 250mm centres horizontally with pins and washers
4. Composition and application of insulation material to be maintained in production and use in accordance with originally tested composition formula and method of application, and manufacturer's instructions
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

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PLACES OF PRODUCTION

Rockwool A/S Moss Trondheim Norway	Roxul Asia Sdn. Bhd. 75450 Melaka Malaysia	Rockwool Hungary 8300 Tapolca Hungary
Rockwool BV NL-6045 JG Roermond The Netherlands	Rockwool Peninsular S.A.U. E-31380 Caparroso Spain	Rockwool a.s. 735 31 Bohumin 3 Czech Republic
Rockwool Ltd Pencoed Bridgend Wales, CF35 6NY United Kingdom	Roxul Rockwool Insulation India Pvt. Ltd. Plot - Z/4, Dahej SEZ, Dahej District Bharuch - 392 130 Gujarat India	Deutsche Rockwool GmbH & Co. OHG Ruhrstrasse 13 DE-86633 Neuburg a.d. Donau Germany
Rockwool A/S Rockwoolvej Ø Doense DK-9500 Hobro Denmark	Rockwool A/S Industrivej DK-6580 Vamdrup Denmark	



Bruce McDonald
TSC Manager - Americas, Marine
Lloyd's Register Americas
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).