

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-60 BULKHEAD
Description	Fire-Resisting 'A' Class Bulkhead - Type "A60 insulated with (SeaRox FB6040 / SeaRox FB6050) or FM6040ALU"
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	20 March 2017	Expiry date	19 March 2022
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Certificate No.	SAS F170065
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Signed	
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Sheet No	1 of 3
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Name	B. McDonald Surveyor to Lloyd's Register EMEA A Member of the Lloyd's Register Group
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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
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Document number SAS F170065
Issue number 1

DESIGN APPRAISAL DOCUMENT

Date 20 March 2017	Quote this reference on all future communications SOUTSO/SFS/TA/BM/WP28748470
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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F170065

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. PGA10661 dated 4th June 2015 and PGA10770A dated 5th January 2016

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, 60 kg/m³ density) "SeaRox FB 6040" applied on the steel plate and retained by steel pins and washers at maximum 300mm horizontal x 250mm staggered vertical centres and 150mm from insulation joints with 2 pin rows, 100mm 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 125mm 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 SeaRox FM 60 40 ALU mats (thickness 35mm and density 60Kg/m³) with one layer of matt being arranged vertically and one horizontally. The insulation is finished with an aluminium foil. Both foil faces are to be touching sandwiched in the middle of the arrangement between the two insulation sheets. Insulation is secured with a washer and pin arrangement which is at 300mm centres horizontally and 500mm centres vertically, each 2nd row is offset by 250mm.
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

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



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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F170065

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

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Ruhrstrasse 13
DE-86633
Neuburg a.d. Donau
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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).

