

Transport Canada Safety and Security Page 1 of 3 Certificate No: LR23133711TCF Issue Date: 03/05/2022 Expiry Date: 02/05/2027

Certificate of Type Approval Issued on Behalf of Transport of Canada

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 Transport Canada to issue the relevant certificates, licences, permits etc.

Manufacturer	Rockwool International A/S
Address	Hovedgaden 501, 2640 Hedehusene, Denmark
Туре	A-30 Bulkhead
Description	Fire Resisting 'A' Class Bulkhead – Type: "A30 Bulkhead SeaRox FB 6020 / SeaRox FB 6050" steel bulkhead insulated on stiffened side with two types of rockwool insulation materials
Trade Name	"A30 Bulkhead SeaRox FB 6020 / SeaRox FB 6050"
Specified Standard	IMO Res. MSC.307(88) - (2010FTP Code) Annex 1 Part 3 IMO MSC.1/Circ.1435

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 North America, Inc. 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.

Bruce McDonald

Technical Authority - Statutory to Lloyd's Register North America, Inc. A member of the Lloyd's Register group

1330 Enclave Parkway, Houston, Texas, 77077, United States

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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR23133711TCF

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions, and this Design Appraisal Document forms part of the Certificate.

This Design Appraisal Document forms part of the Certificate.

This Certificate is a Renewal of Certificate Number LRTC 0000140

APPROVAL DOCUMENTATION

Rockwool Technical Insulation Drawing No. R-013, dated 2015-04-09.

TEST REPORTS

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. A-30 steel bulkhead insulation system 'A30 Bulkhead SeaRox FM 6020 / SeaRox FB 6050' consisting of: steel bulkhead insulated on stiffened side with one layer of rockwool insulation "SeaRox FB 6020" (70mm thick, 40 kg/m³ density), manufactured by Rockwool Technical Insulation, applied on the steel plate, stiffeners insulated with two layers of rockwool insulation "SeaRox FB 6050" (30mm thick, 70kg/m³ density) inside stiffeners and one layer of rockwool insulation "SeaRox FB 6050" (30mm thick, 70kg/m³ density) surrounding the outside of the stiffener with 3 strips (parallel to stiffener side and top) of 65mm, 130mm and 65mm width. Total thickness of the insulation is 70mm.
- Insulation on the steel plate retained by 3mm diameter steel pins and 30mm diameter washers at maximum 300mm horizontal, 500mm staggered vertical, 300mm diagonal centres and 120mm from insulation joints with 2 pin rows, 130mm from insulation joints with 1 pin rows. Insulation strip mounted on external face of stiffener parallel to bulkhead face retained with steel pins and washers at 300mm centres.
- 4. Maximum width of insulation blankets following installation: 1000mm.
- 5. Insulation fixing method should be same as tested arrangement in all cases.
- 6. 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.
- 7. 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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8. 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.

PLACES OF PRODUCTION

Rockwool A/S Moss Trondheim Norway

Roxul Asia Sdn. Bhd. 75450 Melaka Malaysia

E-31380 Caparroso

Spain

Rockwool BV NL-6045 JG Roermond The Netherlands

Rockwool Ltd Pencoed Bridgend Wales, CF35 6NY **United Kingdom**

Rockwool A/S Rockwoolvei Ø Doense DK-9500 Hobro Denmark

Bruce McDonald

B_M'Doul

Technical Authority-Statutory Lloyd's Register Americas

District Bharuch - 392 130 Gujarat India

Plot – Z/4, Dahej SEZ, Dahej

Rockwool Peninsular S.A.U.

Roxul Rockwool Insulation India Pvt. Ltd.

Rockwool A/S Industrivei DK-6580 Vamdrup Denmark

Rockwool Hungary 8300 Tapolca Hungary

Rockwool a.s. 735 31 Bohumin 3 Czech Republic

Deutsche Rockwool GmbH & Co. OHG Ruhrstrasse 13 DE-86633 Neuburg a.d. Donau Germany

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)

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