

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 A/S |
| Address | Hovedgaden 501 2640 Hedehusene Denmark |
| Type | A-60 BULKHEAD |
| Description | Aluminium Bulkhead insulated on the fire exposed side with "Rockwool Marine Firebatt 130" (60mm thick, 130kg/m ³ density)-For Restricted applications. |
| Specified Standard | IMO Resolution MSC.61(67) - (FTP Code) Annex 1 Part 3 IMO MSC/Circ.1120 |

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 31 May 2011 Expiry date 30 May 2016

Certificate No. SAS F110195

Signed



Sheet No 1 of 3

Name

S. Abraham
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, 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 Group'. The Lloyd's Register Group 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 Group 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.

DESIGN APPRAISAL DOCUMENT

| | |
|---------------------|---|
| Date 31 May 2011 | Quote this reference on all future communications LDSO/TA/SFS/SA |
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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F110195

This Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

DIFT Danish Institute of Fire Technology, Copenhagen, Denmark, Fire Test Report No G10125, dated 26 January 1996.

CONDITIONS OF CERTIFICATION

1. Insulated face of the division to be exposed to the fire risk side in all cases.
2. Consisting of: two layers of (30mm thick, 130kg/m³ density) Rockwool Marine Firebatts 130 fitted on the fire exposed side of an aluminium bulkhead (minimum plate thickness 6mm and minimum stiffener thickness 9mm) retained by 3mm diameter steel pins mechanically fixed to the aluminium bulkhead and steel washers 38mm diameter, spaced at 300mm maximum centres and maximum 10mm from all edges.
3. Application in each case to be approved by Lloyd's Register at the design stage.
4. Application restricted to stairway enclosures, lift trunks and control room boundaries, where the insulation faces the fire hazard and there is no fire risk on the non-insulated side.
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
2640 Hedehusene
Vamdrup
Doense
Denmark

Rockwool A/S
Moss
Trondheim
Norway

Rockwool Polska Sp. z.o.o.
66-131 Cigacie
Poland

Deutsche Rockwool GmbH & Co. OHG
Flechtingen
Neuburg
Gladbeck
Germany

Rockwool BV
NL-6045 JG Roermond
The Netherlands

Rockwool France
63700 Saint Eloy Les Mines
France

Roxul Asia Sdn. Bhd.
75450 Melaka
Malaysia

Flumroc AG
8890 Flums
Switzerland

DESIGN APPRAISAL DOCUMENT

Date

31 May 2011

Quote this reference on all future communications

LDSO/TA/SFS/SA

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F110195

PLACES OF PRODUCTION continued

Rockwool Adriatic d.o.o.
52 333 Potpičan
Croatia

Rockwool Peninsular S.A.U.
E-31380 Caparrosa
Spain

Rockwool Hungary
8300 Tapolca
Hungary
Poland



Saji Abraham
Surveyor
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).