

## 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.

|                           |   |
|---------------------------|---|
| <b>Manufacturer</b>       | Rockwool A/S  |
| <b>Address</b>            | Hovedgaden 501<br>2640 Hedehusene<br>Denmark                                    |
| <b>Type</b>               | A-60 BULKHEAD   |
| <b>Description</b>        | Aluminium Bulkhead insulated on both sides with "Rockwool Marine Firebatts 130" |
| <b>Specified Standard</b> | IMO Resolution MSC.61(67) - (FTP Code) Annex 1 Part 3<br>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 F110191

Signed

A red ink signature of S. Abraham is written over a red rectangular stamp. The stamp contains the text "Surveying Office" and "Lloyd's Register" in red.

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<br>31 May 2011 | Quote this reference on all future communications<br>LDSO/TA/SFS/SA |
|---------------------|---|

**ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F110191**

This Design Appraisal Document forms part of the Certificate.

**APPROVAL DOCUMENTATION**

Danish Institute of Fire Technology, (Formerly DANTEST), Copenhagen, Denmark, Fire Test Report No. PG 10699, dated 3 October 2000.

**CONDITIONS OF CERTIFICATION**

1. When used in conjunction with an aluminium bulkhead to maintain a maximum core temperature of 200°C.
2. Consisting of: an aluminium structural bulkhead insulated on both sides with two layers of (30mm thick, 130kg/m<sup>3</sup> density) "Rockwool Marine Firebatts 130", with staggered insulation joints and retained to the steel substrate by 3mm diameter steel pins and steel washers spaced at 300mm maximum centres and maximum 10mm from all edges.
3. 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 Cigacicie  
 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

|                     |   |
|---------------------|---|
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|---------------------|---|

#### ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F110191

#### PLACES OF PRODUCTION continued

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

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

Rockwool Hungary  
8300 Tapolca  
Hungary  
Poland

  
London Office  
Lloyd's Register EMEA

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).*