

## 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 - Marine & Offshore
<b>Address</b>	Hovedgaden 584 2640 Hedehusene Denmark
<b>Type</b>	<b>MATERIAL HAVING LOW FLAME SPREAD CHARACTERISTICS &amp; NOT CAPABLE OF PRODUCING EXCESSIVE QUANTITIES OF SMOKE &amp; TOXIC PRODUCTS OF COMBUSTION</b>
<b>Description</b>	Fire Resisting Material - Type: "Universal Pipe Sections" with Foil/Fibre glass mesh facing
<b>Specified Standard</b>	IMO Fire Test Procedures Code, Annex 1 and Annex 2, Part 5

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	10 February 2006	Expiry date	9 February 2011
Certificate No.	SAS F060032	Signed	 
Sheet No	1 of 2	Name	M. Farrier 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 10 February 2006	Quote this reference on all future communications LPA/SPS/FITA/MF
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**ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F060032**

This Design Appraisal Document forms part of the Certificate.

**APPROVAL DOCUMENTATION**

DIFT Danish Institute of Fire Technology (Formerly DANTEST), Copenhagen, Denmark, Fire Test Report No. PF10798d, Serial No. 7357, dated 25 October 1999.

**CONDITIONS OF CERTIFICATION**

1. When applied to non-combustible substrates of 45kg/m<sup>3</sup> density or above.
2. System consists of a mineral wool substrate an insulation facing of aluminium-foil, 5 x 5 mm fibreglass net and bonded with polyurethane and Glueflex R518 adhesive (total weight per unit approximately 166g/m<sup>2</sup>).
3. Smoke and toxicity criteria is satisfied by meeting the total heat release (Q<sub>t</sub>) and peak heat release rate (q<sub>p</sub>) as stated in IMO Fire Test Procedures Code Annex 2, section 2.2.
4. 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.

**PLACE OF PRODUCTION**

Rockwool A/S Hovedgaden 501 DK-2640 Hedehusene Denmark	Rockwool A/S Industrivej 9-11 DK-6580 Vamdrup Denmark	Rockwool A/S Øster Doense DK-9500 Hobro Denmark	Rockwool A/S Vaerlegt. 56 Postbox 55 N-1501 Moss Norway	Rockwool A/S Leangen Alle 1 Postbox 3903 N-7002 Trondheim Norway
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Martin Farrier  
 Lead Specialist  
 Safety & Pollution Services  
 London Plan Approval  
 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).*