



## CERTIFICATE OF FIRE APPROVAL

This is to certify that

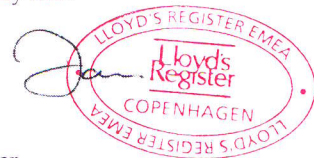
The product detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations and with the International Convention for the Safety of Life at Sea, (SOLAS), 1974, as amended, for use on ships and offshore installations classed with Lloyd's Register, and for use on ships and offshore installations when authorised by contracting governments to issue the relevant certificates, licences, permits etc.

Manufacturer	Rockwool A/S Marine & Offshore
Address	Hovedgaden 584 2640 Hedehusene Denmark
Type	<b>MATERIAL HAVING LOW FLAME SPREAD CHARACTERISTICS &amp; NOT CAPABLE OF PRODUCING EXCESSIVE QUANTITIES OF SMOKE &amp; TOXIC PRODUCTS OF COMBUSTION</b>
Description	Fire Resisting Material - Types: "Aluminium Foil and Aluminium Foil with fibreglass-net reinforcement"
Specified Standard	IMO Fire Test Procedures Code, Annex 1, Part 5 and Annex 2

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 F060034	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 27 May 2009	Quote this reference on all future communications LDSS/PAS/TA/MF
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#### ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F060034

This Design Appraisal Document forms part of the Certificate.

#### APPROVAL DOCUMENTATION

DIFT, Danish Institute of Fire Technology, Copenhagen, Fire Test Report File Nos. PF10798a/Serial No. 7354 dated 25 October 1999, No. PF10798b/Serial No. 7355 dated 25 October 1999, No. PF10798c/Serial No. 7356 dated 25 October 1999, No. PF10798d/Serial No. 7357 dated 25 October 1999, No. PF10449/Serial No. 6571 dated 12 December 1997, No. PF12752a/Serial No. 11358 dated 12 November 2007, No. PF12752b/Serial No. 11359 dated 12 November 2007, No. PF12752c/Serial No. 11360 dated 12 November 2007.

#### CONDITIONS OF CERTIFICATION

- When applied to a certified Rockwool non-combustible material of at least 25kg/m<sup>3</sup> or higher density.
- Consisting of: Aluminium Foil, weight per unit area of aluminium foil: 77g/m<sup>2</sup>, Aluminium Foil with fibreglass-net reinforcement, weight per unit area of aluminium foil 77g/m<sup>2</sup>, weight per unit area of glass-net: 24g/m<sup>2</sup> and Aluminium Foil with fibreglass-net reinforcement, weight per unit area of aluminium foil: 54g/m<sup>2</sup>, weight per unit area of glass net: 22g/m<sup>2</sup> and Aluminium Foil with fibreglass-net reinforcement, weight per unit area of aluminium foil: 49g/m<sup>2</sup>, weight per unit area of glass net: 15g/m<sup>2</sup>
- 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.
- 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	Rockwool A/S	Rockwool A/S	Rockwool A/S	Rockwool A/S
Hovedgaden 501	Industrivej 9-11	Øster Doense	Vaerlegt. 56	Leangen Alle 1
DK-2640	DK-6580	DK-9500	Postbox 55	Postbox 3903
Hedehusene	Vamdrup	Hobro	N-1501 Moss	N-7002 Trondheim
Denmark	Denmark	Denmark	Norway	Norway



M. Farrier  
Lead Specialist  
Statutory Fire & Safety  
London Design Support Service  
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).*