



MARINE DIVISION

Certificate number: 19958/A1 BV

File number: ACI 1000/353/031

Product code: 5001H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

ROCKWOOL A/S
Hedehusene - DENMARK

for the type of product

A60 CLASS ALUMINIUM BULKHEADS

A-60 CLASS Aluminium Bulkhead

Requirements:

SOLAS 74, as amended, Chapter II.2 - BV Rules Part C Chapter 4

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 08 Oct 2015

For BUREAU VERITAS,

At BV COPENHAGEN, on 22 Oct 2010,

Bengt Sangberg



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

A-60 CLASS Aluminium Bulkhead

Aluminium bulkhead insulated with either :

Common international solutions :

Construction	Product Description	Application / Limitations	Type Approval Documentation
<p>Solution 1 A-60 Bulkhead, Aluminium</p> <p>Rockwool Marine Firebatts 130 2x30 mm / 2x30 mm Both sides</p>	<p>A-60 Bulkhead, Rockwool Marine Firebatts 130</p> <p>Composed of aluminium bulkhead insulated with minimum 2x30 mm mineral wool of type "Rockwool Marine Firebatts 130" of density 130 kg/m3 between stiffeners, and minimum 2x30 mm around stiffeners. The bulkhead is to be insulated on both sides, same built-up.</p> <p>The bulkhead insulation is mounted with standard 3 mm steel pins and 38 mm steel clips (spring washers) at intervals of approx 300/400 mm, according to drawing</p>	<p>General application.</p>	<p>Test report G10699 / 7735 , 3 October 2000, DIFT</p>
<p>Solution 2 A-60 Bulkhead Restricted, Aluminium</p> <p>Rockwool Marine Firebatts 130 2x30 mm / 2x30 mm</p>	<p>A-60 Bulkhead Restricted, Rockwool Marine Firebatts 130</p> <p>Composed of aluminium bulkhead insulated with minimum 2x30 mm mineral wool of type "Rockwool Marine Firebatts 130" of density 130 kg/m3 between stiffeners, and minimum 2x30 mm around stiffeners.</p> <p>The bulkhead insulation is mounted with standard 3 mm steel pins and 38 mm steel clips (spring washers) at intervals of approx 300/400 mm, according to drawing</p>	<p>Restricted application : fire against the insulated side.</p>	<p>Test report G10125/ 5996 , 26 January 1996, DIFT</p>
<p>Solution 3 A-60 Bulkhead, Aluminium</p> <p>Rockwool Marine Firebatts 100 2x30 mm / 2x30 mm</p>	<p>A-60 Bulkhead, Rockwool Marine Firebatts 100</p> <p>Composed of Aluminium bulkhead insulated on both sides with minimum 2 x 30 mm mineral wool of type "Rockwool Marine Firebatts 100" of density 100 kg/m3 and on stiffeners side between stiffeners and upon stiffeners.</p> <p>The bulkhead insulation is mounted with standard 3 mm steel pins and 38 mm steel clips (spring washers) at intervals of approx 300 / 400 mm. according to drawing.</p>	<p>General application.</p>	<p>Test report 2009CS01950/1 dated 7 April 2009 from RINA,Italy.</p>

Local National Solutions :

Construction	Product Description	Application / Limitations	Type Approval Documentation	National Country
Solution A A-60 Bulkhead Restricted, Aluminium Rockwool Marine Wired Mat 125 2x30 mm / 2x30 mm	A-60 Bulkhead Restricted, Rockwool Marine Wired Mat 125 Composed of aluminium bulkhead insulated with minimum 2x30 mm mineral wool of type "Rockwool Marine Wired Mat 125" of density 125 kg/m ³ between and around stiffeners. The bulkhead insulation is mounted with standard 3 mm steel pins and 38 mm steel clips (spring washers) at intervals of approx 300/400 mm, according to drawing	Restricted application : fire against the insulated side.	Test Report 103020.07A SINTEF 15.10.2001	Norway : Rockwool Firemat100 (Brannmate)

2. DOCUMENTS AND DRAWINGS :

As per Manufacturer's drawings attached in tests reports mentioned in § 1.

3. TEST REPORTS :

Test reports mentioned in § 1 (tests carried out as per IMO A.754(18) resolution).

4. APPLICATION / LIMITATION :

- 4.1- The fitting aboard to be the same as used for the test.
- 4.2- Flame spread, smoke characteristics and calorific value of the lining to be as per applicable regulations.
- 4.3- The insulating materials shall comply with the requirements of BV Rules, to the satisfaction of the Society for acceptance of the division on board the concerned ship.

5. PRODUCTION SURVEY REQUIREMENTS :

The products are to be manufactured, examined and tested by Rockwool A/S in accordance with the type described in this certificate and Bureau Veritas Rules for the Classification of Steel Ships.

Production sites are to be recognized by Bureau Veritas as per NR320 for HBV products. To this end Rockwool A/S has to make the necessary arrangements for a Society's Surveyor to perform visits and product audits at the production sites.

6. MARKING OF PRODUCT :

The product or packing is to be marked with manufacturer name, type, designation and fire-technical rating.

7. OTHERS :

This approval is given with the understanding that the manufacturer will accept full responsibility for informing shipbuilders, shipowners or their sub-contractors of the proper methods of fitting and general maintenance of the approved equipment and the conditions of this approval.

*** END OF CERTIFICATE ***