



Certificate number: 19949/A0 BV

File number: ACI 1000/353/019

Product code: 5090H

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

A30 CLASS DECKS

A-30 CLASS DECK

Requirements:

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

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: 24 Aug 2015

For BUREAU VERITAS,

At BV FREDERICIA, on 24 Aug 2010,

Arne Madsen



 This certificate is recognized by Transport Canada

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-30 CLASS DECK

Structural steel deck insulated with either :

Common international solutions :

Construction	Product Description	Application / Limitations
Solution 1 A30- steel deck Rockwool Marine batts 45. 50 mm / 30 mm	A-30 Deck, Rockwool Marine Batts 45. Composed of steel deck insulated on the underside of the deck with minimum 50 mm mineral wool of type "Rockwool Marine Batts 45" of density 45 kg/m3 between stiffeners, and minimum 30 mm mineral wool of type "Rockwool Marine Batts 45" around stiffeners. The deck insulation is mounted with standard 3 mm steel pins and 38 mm steel clips (spring washers) at intervals of approx 300 mm, according to drawing	Fire against either side.
Solution 2 A30- steel deck Rockwool Marine Wired Mat 90. 30 mm / 30 mm	A-30 Deck, Rockwool Marine Wired Mat 90. Composed of steel deck insulated on the underside of the deck with minimum 30 mm mineral wool of type "Rockwool Marine Wired Mat 90" of density 90 kg/m3 between stiffeners, and minimum 30 mm mineral wool of type "Rockwool Marine Wired Mat 90" around stiffeners. The deck insulation is mounted with standard 3 mm steel pins and 38 mm steel clips (spring washers) at intervals of approx 300 mm, according to drawing	Fire against either side.

Local National Solutions :

Construction	Product Description	Application / Limitations	National Country
Solution A A-30 Steel Deck Rockwool Shiprock plus 60 mm / 60 mm	A-30 Deck, Shiprock plus. Composed of steel deck insulated on the underside of the deck with minimum 60 mm mineral wool of type "Rockwool Shiprock plus" of density 27 kg/m3 between stiffeners, and minimum 60 mm mineral wool of type "Rockwool Shiprock plus" around stiffeners. The deck insulation is mounted with standard 3 mm steel pins and 38 mm steel clips (spring washers) at intervals of approx 300 mm, according to drawing	Fire against either side.	German Solution
Solution B A-30 Steel Deck	A-30 Deck , Marine Mat / Comfort Marine A.	Fire against either side.	Norwegian Solution

Rockwool Marine Mat / Comfort Marine A 50 mm / 30 mm	Composed of steel deck insulated on the underside of the deck with minimum 50 mm mineral wool of type "Rockwool Marine Mat" or "Rockwool Comfort Marine A" of density 35 kg/m ³ between stiffeners, and minimum 30 mm mineral wool of type "Rockwool Marine Mat" or "Rockwool Comfort Marine A" around stiffeners. The deck insulation is mounted with standard 3 mm steel pins and 30 mm steel clips (spring washers) at intervals of approx 300 mm, according to drawing.		
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2. DOCUMENTS AND DRAWINGS :

As per Manufacturer's drawings attached in tests reports mentioned in § 3.

3. TEST REPORTS :

- 3.1- Test report N° PG 10985 sn 8431 dated 13.08.2002 as per IMO A754 (18) from DIFT, Denmark.
- 3.2- Test report N° GH95.15.1 dated 24.10.1995 as per IMO A754 (18) from TUV, Germany.
- 3.3- Test report N° PG 11284 dated 12.05.2004 as per IMO A754 (18) from DIFT, Denmark.
- 3.4- Assessment N° PG 11408 dated 21.03.2005 from DIFT, Denmark.
- 3.5- Test report N° 250000.42/94.387-A dated 02.01.1995 and N° 846060/96.068 dated 20.02.1996 as per IMO A754 (18) from SINTEF, Norway.

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 ***