



# DET NORSKE VERITAS

## EC TYPE-EXAMINATION CERTIFICATE

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive 2008/67/EC, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. This certificate is issued by Det Norske Veritas under the authority of the Government of the Kingdom of Norway.

CERTIFICATE NO. **MED-B-5612**

This is to certify that the  
**"B" Class divisions, fire integrity**

with type designation(s)  
**B-500/52 CEILING PANELS B15/A30**

Manufacturer  
**Norac AS**  
ARENDALE, Norway

is found to comply with the requirements in the following Regulations/Standards:  
**Annex A.1, item No. A.1/3.11b and Annex B, Module B in the Directive. SOLAS 74 as amended, Regulation II-2.3.4.4. and IMO FTP Code.**

Further details of the equipment and conditions for certification are given overleaf.

Høvik, 2009-10-20  
for Det Norske Veritas AS




Eivind Mykland  
Head of Department



Notified Body No.: 0575

DNV local office:  
DNV Kristiansand S

This certificate is valid until  
2014-10-20



Rolf Emilsen  
Surveyor



Notice: The certificate is subject to terms and conditions overleaf. Any significant changes in design or construction of the product, or amendments to the Directive or Standards referenced above may render this certificate invalid. The product liability rests with the manufacturer or his representative in accordance with Council Directive 96/98/EC, as amended. The Mark of Conformity may only be affixed to the product and a Declaration of Conformity may only be issued when the production/product assessment module referred to in the council directive, is fully complied with.



Certificate No.: MED-B-5612  
Item No.: A1/3.11b  
Job Id.: 344.1-000597-11

## Product description

### "B-500/52 ceiling panel system B15/A30"

Ceiling panels of thickness 52 mm and width 500 mm, manufactured from 0.6 mm steel sheets, covered on each side 50 mm insulation manufactured by Rockwool as specified below:

- "Rockwool T120" (density 120 kg/m<sup>3</sup>) for panel lengths up to 2400 mm
- "Rockwool T150" (density 150 kg/m<sup>3</sup>) for panel lengths from 2401-3000 mm

All main interfaces between steel and insulation are glued. The ceiling panels have steel plates 1.25 x 28 x 45 mm on unexposed side along the joints to keep the joints levelled. Distance between steel plates is 600 mm along the joints.

The ceiling is fastened to the bulkheads with galvanized steel angles and to the deck with T-profiles fixed with vertical steel strips 900 mm apart.

The ceiling may incorporate:

- Inspection hatch:  
Type 37275 from Norac or equivalent. Max. clear opening 395 x 495 mm.  
Counterframes are to be protected on each side by 3 mm Firemaster 607 (128 kg/m<sup>3</sup>). See drawing 34720-002 for details.
- Light fitting 1:  
Type Einbaudownlight 2 x 7 Watt TC-S KVG from Missal, Germany or equivalent.  
Max. clear opening Ø 140 mm. Insulated on top with 60 mm Rockwool Firemat 100 with alu foil (125 kg/m<sup>3</sup>) or with 30 mm Rockwool Firemat 100 with alu foil lifted 10 mm from the panel with steel bridges.
- Light fitting 2:  
Type Pullman bed light from Missal, Germany or equivalent. Max clear opening 75 x 186 mm.
- Loudspeaker:  
Type BG17 8 OHM Art No. 3017 from Visaton, Germany, or equivalent. Max. clear opening Ø 145 mm. Insulated on top with 30 mm Rockwool Firemat 100 with alu foil (125 kg/m<sup>3</sup>).

## Applications/Limitations

Approved for use as a horizontal fire retarding division of class B-15.

When the panels are suspended 300 mm below the structural steel deck, the whole construction may be regarded as a class A-30 deck construction.

The insulation material (Rockwool T120 and T150) and any surface material used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

Each product is to be supplied with its manual for installation and maintenance.

## Type Examination documentation

Test Reports No. G 10501 dated 3 February 1999 and G10467 dated 10 October 1998 from DIFT, Copenhagen, Denmark and No. 103020.26 dated 7 January 2003 from SINTEF, Trondheim, Norway.

Assessments No. H 11199 dated 20 May 1999 from DIFT and No. 103202.80 dated 30 May 2006 from SINTEF, Norway.

Tested according to IMO FTPC Part 3 (IMO Res. A. 754(18)).

## Marking of product

The product or packing is to be marked with name of manufacturer, type designation, fire-technical rating, Mark of Conformity and USCG marking if applicable (see page 3).





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### Mark of Conformity

The manufacturer is allowed to affix the Mark of Conformity according to Article 11 in the Council Directive 96/98/EC on Marine Equipment and shall issue a Declaration of Conformity, only when the module D or E or F of Annex B in the same directive is fully complied with.

Module D: The quality system for production and testing shall be approved by the Notified Body.

Module E: The quality system for inspection and testing shall be approved by the Notified Body.

Module F: Compliance of the products to type as described in this EC Type-Examination Certificate must be verified by the Notified Body who also shall issue a of Certificate Conformity.

### USCG Approval

An U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of certificates of conformity for marine equipment" signed 17 October 2005.

