

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the "A" and "B", Class divisions, fire integrity

with type designation(s)
Class B-15 Ceiling - B-500/52

Issued to

Norac AS
Arendal, Norway

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773**,
Annex A.1, item No. A.1/3.11 and Annex B, Module B in the Directive; SOLAS 74 as amended,
Regulation II-2/3 & II-2/9

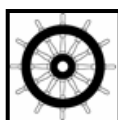
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2024-09-17**.

Issued at **Høvik** on **2019-09-18**

DNV GL local station:
Kristiansand S

Approval Engineer:
Joanna Kowalczuk



Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
Head of Notified Body



The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.



Product description

"Class B-15 Ceiling - B-500/52."

Ceiling panels consisting of an 50 mm insulation core with mineral wool designated Rockwool SeaRox SL440 (density of 150kg/m³) from Rockwool Technical Insulation, covered on both sides with 0.6 mm thick galvanized steel sheets. The insulation is glued to the unexposed steel sheet with adhesive with an amount of approximately 120 g/m². The sheet on the exposed side can be both perforated and unperforated.

The ceiling panels are joined by stepped joints covered by a 1.25 x 1600 x 45 mm thick steel sheet which is fixed to the ceiling panels by means of 3.2 mm pop rivets with a c-c distance of 250 mm.

A 0.6 mm thick galvanized steel T-profile supports the short ends of the panels and is used to increase the length of the ceiling. When the ceiling is suspended below the structural steel deck the T-profile is fixed to the deck above with steel strips at a distance of 600 mm c-c.

Total panel thickness: 52 mm.

The ceiling may be fitted with a hatch of 423 x 626 x 39 (W x L x T). The hatch is insulated with 37 mm thick Rockwool SeaRox SL440 (density 150 kg/m³). Between the insulation and the perforated steel sheet on the underside of the hatch an acoustic foil of type SeaRox was installed.

The hatch is equipped with continuous piano hinge, lock with three latches and in tumescent fire gasket of type Lorient LP 1003 between hatch and frame on all sides.

For further details, see drawings listed under Type Examination documentation below.

Application/Limitation

Approved for use as a horizontal fire retarding division of class B-15. Ceiling with hatch is to be regarded as B-0.

When the panels are suspended at least 290 mm below the structural steel deck, the whole construction may be regarded as a fire retarding division of class A-30.

Maximum size of panel: 500 mm x 2750 mm (W x H)

Maximum size of hatch: 423 x 626 x 39 mm (W x L x T)

The insulation materials and adhesives used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity. This requirement may also be applicable for surface materials used, if required by relevant rules and regulations.

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

Type Examination documentation

Tests carried out

Tested according to IMO 2010 FTP Code part 3.

Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation, MED Mark of Conformity and USCG approval number if applicable (see first page).