

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 the Kingdom of Norway.

This is to certify:

That the "B" Class divisions, fire integrity

with type designation(s)
SKB OCEAN B-15, FRD-30

Issued to

Skandi-Bo Indoor AS
Jerslev Sjælland, Denmark

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2017/306**,
item No. MED/3.11b. SOLAS 74 as amended, Regulation II-2.3.4 & II-2/9 and IMO 2010 FTP Code

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

This Certificate is valid until **2022-11-06**.

Issued at **Høvik** on **2017-11-07**

DNV GL local station:
Copenhagen

Approval Engineer:
Tomasz Werchowicz



Notified Body
No.: **0575**

for **DNV GL AS**

Vidar Dolonen
Head of Notified Body

A 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.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

"SKB OCEAN B-15, FRD-30"

composed of glass panels fitted within a frame consisting of aluminium profiles with glazing beads mounted on both sides. Both profiles and glazing beads has a core made of "KNAUF MP 75L" (manufactured by: Knauf) with density 800 kg/m³.

Glazing units are made of CONTRAFLAM STRUCTURE MARINE EI30 safety glass from Vetrotech Saint-Gobian Int. AG and are composed of three glass panes separated by 3 mm thick intumescent interlayers: 6 mm toughened glass + 3 mm interlayer + 5 mm toughened glass + 3 mm interlayer + 6 mm toughened glass.

The glass panels are placed on 25 x 40 x 3 mm (W x L x T) PROMAT Glassblocks and supported along the frame members with 27 x 25 x 18.5 x 1 mm (W x L x H x T) steel clips, riveted to the frame and positioned every 295 mm.

The glass sections are mounted with a 4 mm gap with two pieces of 2 x 10 mm "Kerafix FXL200" (manufactured by: Rolf Kuhn GmbH) intumescent seal covered with silicone seal and along the edges of the glazing beads with a black rubber seal mounted on both sides of the glass sections.

Total panel thickness: 23 mm

For more details see drawings listed under Type Examination documentation below.

Application/Limitation

Approved for use as a vertical fire retarding division of class B-15. Fire against either side.

Max. glass panel size: 1500 x 3105 mm (W x H)

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.

Any surface materials used have to be approved for smoke and toxicity and low flame spread characteristics (IMO 2010 FTP Code Annex 1 parts 2 and 5) when required according to relevant rules."

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 is to be marked with name and address of manufacturer, type designation, fire technical rating, the MED Mark of Conformity and USCG Approval Number if applicable (see first page).