

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 Fire resisting divisions for high speed craft

with type designation(s)
SKB OCEAN B-15, FRD-60

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/3.34. SOLAS 74, Regulation X/3, 2000 HSC Code 7, IMO MSC.1/Circ.1457 and
IMO 2010 FTP Code

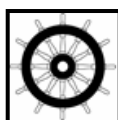
Further details of the equipment and conditions for certification are given overleaf.

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



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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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-60"

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 EI60 safety glass from Vetrotech Saint-Gobian Int. AG and are composed of four glass panes separated by 3 mm thick intumescent interlayers: 6 mm toughened glass + 3 mm interlayer + 5mm toughened glass + 3mm interlayer + 5mm toughened glass + 3 mm interlayer + 6 mm toughened glass.

The glass panels are placed on 25 x 25 x 3 mm (W x L x T) PROMAT Glassblocks and supported along the frame members with 25 x 17 x 32 x 1 mm (W x L x H x T) steel clips, riveted to the frame and positioned every 300 mm.

The glass sections are mounted with a 4 mm gap with two pieces of 2 x 21 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: 31 mm

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

Application/Limitation

Approved for use as a vertical, non-load bearing, fire-resisting division in light crafts, meeting for a period of 60 minutes the requirements to stability, integrity and insulation for class A divisions. 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."

The use of this product shall be limited to applications specifically approved by the Administration in question, see IMO 2010 FTP Code part 3, Annex 1.6. The construction shall in any case not be used as part of main fire zone bulkheads and stairways enclosures on passenger ships (see also IMO MSC/Circ.1005).

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 and part 11.

Marking of product

The product is to be marked with name and address of manufacturer, type designation, fire-technical rating and MED Mark of Conformity (see first page).