DNV·GL

Certificate No:
MEDB00003KK

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 Fire Doors

with type designation(s)
COSMO B-15SVHD

Issued to
COSMO Co., Ltd.
Busan 11, Korea

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2017/306,**
item No. MED/3.16. SOLAS 74 as amended, Regulation II-2/9, IMO 2010 FTP Code and IMO MSC.1/Circ.1511

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

This Certificate is valid until **2020-02-16**.

Issued at **Høvik** on **2018-02-28**

DNV GL local station:
Gimhae Station

Approval Engineer:
Nanna Martine Jacobsen

Notified Body
No.: **0575**

for **DNV GL AS**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

NORWEGIAN ACCREDITATION PROD 019

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Product description

"COSMO B-15SVHD"
is a double leaf hinged door. Each door leaf consists of a 37 mm thick core of mineral wool, nominal density of 140 kg/m^3 and type "Mineral wool" (manufactured by KCC CORPORATION), bonded to 0.6 mm thick steel sheets on both sides (bonded with adhesive). The upper part of the door leaves, 130 mm space, are internally reinforced with 2 mm thick steel plate. The door leaves are each connected to the frame with 3 hinges.

The door frame is made from 1.5 mm thick steel, and includes a top frame which consists of an insulating core of mineral wool (same as above) covered with 1.5 mm thick steel sheets. The size of top frame is 2090 mm x 210 mm (w x h). The door frame may be fitted with 8 x Ø4 x 40L screws or welded to the bulkhead and the top and bottom frame is fitted into profiles on both sides.

The door may be fitted with:

- Window in the upper part of the doors, type designation "Contraflam lite marine B-15" (manufactured by Saint-Gobain). Thickness: 16 mm.
- Hose port in the lower corner of the door (opposite to hinge side), 150 mm x 150 mm (w x h).
- Kick out panel in lower part of the doors, maximum size 420 mm x 520 mm (w x h), with or without internal ventilating ducting grilles.

Total thickness of door leaf: 38 - 45 mm.

For further details see Type Examination documentation below.

Application/Limitation

Approved for use as an integrated part of fire retarding division of class B-15.

Max. clear opening window:	400 mm x 600 mm (w x h)
Max. clear opening door:	2000 mm x 2100 mm (w x h)
Max. size of door leaf:	1017 mm x 2112 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.

The door has been successfully tested with extended test period in compliance with IMO MSC.1/Circ. 1319.

The product is to be supplied with its manual for installation, use and maintenance.

Type Examination documentation

Test report no. KOMERI-0402-13T2502 dated 2014-05-21 from Korea Marine Equipment Research Institute (KOMERI), Busan, Korea.

Drawing no. CD-FB15SVHDD-4 (11 pages) dated 2013-12-11 from Cosmo Co., Ltd.
Drawing no. COSMO B-15SVHD (1 sheet), COSMO B-15SVHD Modified, from Cosmo Co., Ltd.

Confirmation of the door thickness increase dated 2016-06-14 from KOMERI

Tests carried out

Tested according to IMO 2010 FTP Code part 3.

Marking of product

The product is to be marked with name and adress of manufacturer, type designation, fire-technical rating, MED Mark of Conformity and USCG approval number if applicable (see first page).

USCG approval limitations

The approval is limited to fire doors without windows and doors with total window area of 645 cm^2, or less, in each door leaf. For larger windows, USCG shall be contacted.