

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 A-0TVHD

Issued to

COSMO Co., Ltd.
Busan, 11, Republic of Korea

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773**,
item No. MED/3.16. SOLAS 74 as amended, Regulation II-2/9, IMO 2010 FTP Code and IMO MSC.1/Circ.1511

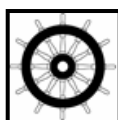
Further details of the equipment and conditions for certification are given overleaf.

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

Issued at **Høvik** on **2019-04-16**

DNV GL local station:
Gimhae Station

Approval Engineer:
Grzegorz Wolski



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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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



Product description

"COSMO A-0TVHD"

is a double leaf hinged door with one leaf active and one non-active. Each door leaf consists of a 37 mm thick core of mineral wool, nominal density of 140 kg/m³ and type "Hi-Wool" (manufactured by KCC Corporation), bonded with adhesive to 0.6 mm thick steel sheets on both sides. 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.

Total door leaf thickness is 38 mm.

The door frame is made from 1.5 mm thick steel sheets, and may be fitted with 36 of M5 x 25 bolts or welded to the bulkhead.

The door may be fitted with a hose port (150x150 mm) and a window, type Contraflam Lite Marine A0, 16 mm thick or porthole, type Contraflam Lite Marine A0, 16 mm thick (both by Vetrotech Saint-Gobain).

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

Application/Limitation

The door is approved for installation in steel bulkheads of class A-0. Installation of the door in bulkheads made of other materials (aluminium, FRP, etc.) are subject to case-by-case approval.

Max. clear opening door:	2000 mm x 2100 mm (w x h)
Max. size of door leaf:	1017 mm x 2105 mm (w x h)
Max. size of window clear opening:	450 mm x 450 mm (w x h)
Max. size of porthole clear opening:	Ø 300 mm

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.

A fire door of marginally larger dimensions than a fire-tested fire door may be individually assessed and accepted by Flag Administration (or Recognized Organization acting on its behalf) for a specific project with the same classification, provided documented 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-0402-13T1850 dated 20 June 2014 from KOMERI, Busan, Korea. (window)

Test report no. KOMERI-0402-18T0951 dated 23 August 2018 from KOMERI, Busan, Korea. (porthole)

Drawing no. CD-FA0TVHDD-0 (10 pages) dated 23 October 2013 from manufacturer. (window)

Drawing no. CD-FA0TVHDD-0M (10 pages) dated 30 March 2018 from manufacturer. (porthole)

Tests carried out

Tested according to IMO 2010 FTP Code part 3.

The door has been successfully tested with extended test period of at least 68 minutes.



Job Id: **344.1-004264-4**
Certificate No: **MEDB00004XA**

Marking of product

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

USCG approval limitations

The approval is limited to fire doors without windows and doors with total window area of 645 cm², or less, in each door leaf. For larger windows, USCG shall be contacted.