EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00007KC

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 AS under the authority of the Government of Norway.

This is to certify:

That the Fire Doors

with type designation(s)
COSMO B-15H-S

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

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2021/1158,**
item No. MED/3.16. SOLAS 74 as amended, Regulation II-2/9, IMO 2010 FTP Code and IMO MSC.1/Circ.1511, IMO MSC.1/Circ.1319

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

This Certificate is valid until **2027-03-10**.

Issued at **Høvik** on **2022-03-11**

DNV local station:
Gimhae Station

Approval Engineer:
Marcin Tobiasz

Notified Body
No.: **0575**

for **DNV AS**

Sverre Olav Bergli
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, and amended by Decision No 1/2019 dated February 22nd, 2019.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

Product description

"COSMO B-15H-S"
is a single leaf hinged door and consists of insulation core made of mineral wool with nominal density of 140 kg/m^3 (manufactured by KCC Corporation). The insulation core is faced on both sides by 0.6 mm steel sheets, stiffened along the perimeter by 0.6 mm edge cover. The steel plates are glued to the insulation with an adhesive. The top of the door leaf is reinforced with 1.5 mm thick doubling plate. There are two vertical stiffeners of 1.5 mm thick steel profile fitted along the door leaf. They end with a horizontal stiffener of 1.5 mm thick steel profile.

Total door leaf thickness is 45 mm.

The door may be fitted with:

- the Schlage Le lock. The lock is installed at about 1070 mm height above the bottom edge of the door leaf.
- a ventilation duct which is supported along the edges by 1.2T x 20 x 17 x 20 C-profile and one additional duct support.

The door leaf is fixed to the door frame with 3 hinges. The four-sided door frame is composed of 1.5 mm thick steel and may either be welded or screwed (Ø4x40) to the bulkhead spaced maximum 400 mm apart.

The door leaf may incorporate a 407 x 300 mm (W x H) ventilation channel in the middle part of the exposed side of the door leaf and in the lower part of the unexposed side of the door leaf.

For further details refer to the test report listed under Type Examination documentation below.

Application/Limitation

Approved for installation in steel bulkheads of class B-15. Installation of the door in bulkheads made of other materials (aluminium, FRP, etc.) are subject to case-by-case approval.

Maximum door leaf size: 1032 x 2112 mm (W x H)
Maximum clear door opening: 1000 x 2100 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.

Note that this is a fire safety certificate which only covers fire technical properties (i.e. not to cover strength evaluations related to water-tightness, weathertightness, etc.).

Each door is to be supplied with its manual for installation, use and maintenance.

Type Examination documentation

Test Report No. KOMERI-0402-21T2777(E) dated 15 October 2021 from Korea Marine Equipment Research Institute, Korea.

Drawing No. CD-FB15HSD-0 dated 19 August 2021 from COSMO Co. Ltd.

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).