

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-60WETC

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

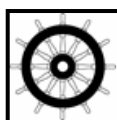
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2020-06-10**.

Issued at **Høvik** on **2019-09-13**

DNV GL local station:
Gimhae Station

Approval Engineer:
Helge Bjørnarå



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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

is a single leaf hinged door. The door leaf consists of a 72 mm thick core of mineral wool (50 mm + 22 mm), nominal density 240 kg/m³ and type "Mineral wool" (manufactured by KCC CORPORATION), bonded to 4 mm thick steel sheets on both sides (bonded with adhesive). The door leaf incorporates 3 stiffeners and the upper part of the door leaf, 100 mm space, is internally reinforced with 4 mm thick steel plate.

Total door leaf thickness is 80 mm.

The door frame is made from 5 mm thick steel sheets, and may be bolted by 28 number of M8x25L bolts or welded to the bulkhead. The door frame is fitted with ceramic seals (Ø23) along the edges of the door leaf.

The door leaf is connected to the frame with 3 reinforced hinges, and closed to the door frame at 8 fastening points with interconnected rods and transmission which is connected to a wheel on both sides of the door.

The door may be fitted with:

- Window in the upper part of the doors, type designation "Contraflam lite marine A60" (manufactured by Saint-Gobain). Thickness: 27 mm

For further details see Type Examination documentation below.

Application/Limitation

The door is approved for installation in steel bulkheads of class A-60. Installation of the door in bulkheads made of other materials (aluminium, FRP, etc.) are subject to case-by-case approval.

Max. clear opening door: 1100 mm x 2200 mm (w x h)
Max. size of door leaf: 1137 mm x 2237 mm (w x h)
Max. clear opening window: 400 mm x 400 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 watertightness, weathertightness, etc.).

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-0402-15T0687 dated 17 April 2015 from KOMERI, Busan, Korea.

Drawing no. CD-FA60WETCD-0 (10 pages) dated 5 March 2015 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.