DNV·GL

Certificate No:
MEDB000006X

EC-TYPE EXAMINATION CERTIFICATE

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive 2014/93/EU, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. 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 Doors

with type designation(s)
COSMO B-15SB-R

Issued to
Cosmo Co., Ltd.
Gyeongsangnam-do Korea, Republic of Korea

is found to comply with the requirements in the following Regulations/Standards:
Annex A.1, item No. A.1/3.16 and Annex B, Module B in the Directive. SOLAS 74 as amended, Regulation II-2/and IMO 2010 FTP Code

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

Høvik, 2015-09-02
for **DNV GL AS**

This Certificate is valid until
2020-09-01

Notified Body No.: **0575**

Vidar Dolonen
Head of Department

DNV GL local office:
Gimhae MC & FIS

Synnøve Bolstad Eri
Surveyor

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Product description

"COSMO B-15SB-R"
is a single leaf door. The door leaf is composed of an insulation core of mineral wool, density 140 kg/m^3 (manufactured by KCC Corporation), faced on both sides with 0.6 mm thick steel panels. Adhesive is applied between the insulation and the steel panels. The upper part of the door leaf incorporates two horizontal stiffeners. The top of the door leaf, 100 mm space on each side, is internally reinforced with 2 mm thick steel plate and the bottom is internally reinforced with a 1.5 mm thick steel channel. Along the edges, the door leaf is fitted with a 0.6 mm thick edge cover.

Total door leaf thickness is 45 mm.

The door leaf is connected to the frame by 3 hinges. The door frame is made from 4 mm thick steel sheets, and may be bolted or clamped with a 4 mm thick back plate by M8x35L bolts (spaced 200-300 mm apart) or welded to the bulkhead.

The door may be fitted with:

- Window between the two stiffeners in the upper part of the door, type designation "CONTRAFLAM B15" (manufactured by Vetrotech Saint-Gobain). Thickness: 16 mm.
- Hose port in the lower corner of the doors (opposite to hinge side), 150 mm x 150 mm (w x h).
- Kick out panel, maximum size 420 mm x 520 mm (w x h), with or without internal ventilating ducting grilles in lower part of the panel.

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. size of door leaf:	1038 mm x 2108 mm (w x h)
Max. clear opening of door:	1000 mm x 2100 mm (w x h)
Max. clear opening of 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.

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. AK2015-0198 dated 30 April 2015 from Fire Insurers Laboratories of Korea (FILK), Korea.

Drawing No. CD-FB15SBRD-0 (11 pages) dated 12 March 2015 from the manufacturer.

Tests carried out

Tested according to IMO 2010 FTP Code part 3.

Marking of product

The product is to be marked with name of manufacturer, type designation, fire-technical rating, MED Mark of Conformity and USCG approval number if relevant (see page 3).

Mark of Conformity

The manufacturer is allowed to affix the Mark of Conformity according to Article 11 in the Council Directive 96/98/EC on Marine Equipment and shall issue a Declaration of Conformity, only when the module D or E or F of Annex B in the same directive is fully complied with.

Module D: The quality system for production and testing shall be approved by the Notified Body.

Module E: The quality system for inspection and testing shall be approved by the Notified Body.

Module F: Compliance of the products to type as described in this EC Type-Examination Certificate must be verified by the Notified Body who also shall issue a Certificate of Conformity.

USCG Approval

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.

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.