

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Class A-0 Door**with type designation(s)
SM-A0-B1

Issued to

Sung Mi Co., Ltd.
Gimhae-si, Gyeongsangnam-do, Republic of Koreais found to comply with
DNV GL offshore standards
DNV GL rules for classification – Ships
DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations**Application :****The door is approved for installation in steel bulkheads of class A-0****This certificate is recognized by Transport Canada.****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Høvik** on **2020-05-25**This Certificate is valid until **2025-05-24**.for **DNV GL**DNV GL local station: **Gimhae Station**Approval Engineer: **Thorvald Furuseth**

Øyvind Hoff
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

"SM-A0-B1"

composed of single leaf hinged door (4 hinges) with door leaf composed of a 34 mm thick insulation core (manufactured by KCC Corporation) of density 120 kg/m³, faced on both sides with 0.6 mm steel sheets.

The door frame is made of 1.2 mm thick steel sheet. The door frame is connected to a fitting angle with tapping screws (ø4 mm maximum spaced 250 ~ 300 mm apart). The fitting angle is bolted (M5x20 maximum spaced 250 ~ 300 mm apart) to the bulkhead and may also be welded (20 mm in length spaced 300 mm apart) to the bulkhead. A 20 mm thick ceramic packing can be fitted between the door leaf and door frame (see drawings for details).

The door may be fitted with:

- A 440 x 440 x 6 mm (width x height x thickness) fire resistance window type VETROFLAM (manufactured by Saint Gobain) in the upper part of the door.
- A 150 x 150 mm (width x height) hose port position (opposite to hinge side) in the lower end of the door.

Total thickness of door leaf is 35 mm.

For further details, see the drawing and test report listed under Type Approval documentation below.

This product may be manufactured at the premises of:

- SUNG MI CO., LTD, 311, Yongjeonsaneopdanji-gil, Samnangin-eup, Miryang-si, Gyeongsangnam-do, KOREA

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.

Any surface materials used must be approved for smoke and toxicity and low flame spread characteristics (IMO 2010 FTP Code parts 2 and 5 or IMO FTPC Parts 2 and 5 when in compliance with the 2010 FTP Code Ch. 5.2 and 8) when required according to relevant rules and regulations.

Max. size of door leaf: 1239 x 2222 mm (W x H)

Max. size of clear opening: 1200 x 2200 mm (W x H)

Max. clear window opening: 400 x 400 mm (W x H)

Max. size of hose port: 150 x 150 mm (W x H)

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.

External windows must comply with ISO 3903, ref. DNV GL Rules for Classification: Ships, Pt.3, Ch.12, Sec.6 [1.1.4].

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

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

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, September 2018.

Test Report no. KOMERI-0402-18T2665, dated 10 October 2018, from Korea Marine Equipment Research Institute, Busan, Korea.



Job Id: **262.1-029406-1**
Certificate No: **TAF0000139**

Drawing no. SMD-180628-001/0 (8 pages) dated 28 June 2018 from manufacturer.

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 and fire-technical rating.

Transport Canada Approval

Based on the procedures laid down in the Transport Canada Publication entitled "*Approval Procedures for, Life Saving Equipment and Structural Fire Protection Products (TP 14612)*", DNV GL confirms that the product listed in this certificate is in accordance with Transport Canada's requirements.

Periodical assessment

DNV GL's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Programme DNVGL-CP-0338, Section 4.