

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Class A Door**with type designation(s)
SM-A0-HP1

Issued to

Sung Mi Co., Ltd.**Gimhae-si, Gyeongsangnam-do, Republic of Korea**

is found to comply with

DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations**DNV GL rules for classification – Ships****DNV GL offshore standards****Application :****Approved for use as an integrated part of fire resisting division 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 **2019-12-12**This Certificate is valid until **2024-12-11**.for **DNV GL**DNV GL local station: **Gimhae Station**Approval Engineer: **Marcin Tobiasz**

Mårten Schei-Nilsson
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-HP1"

a single leaf hinged door composed of 3 vertical slabs of 120 mm width and 47 mm thick mineral wool of density 120 kg/m³ from KCC Corporation faced on each side with 0.6 mm steel sheets. The door leaf is equipped with 3 pcs. of "SM-3102" type hinges and a door lock type "SM-1105".

The door frame is composed of 4 mm folded steel sheets. The door frame can be either welded or bolted with M8 bolts (pitch 250-300 mm) to the bulkhead.

The door may be fitted with:

- A hose port (150 mm x 150 mm) with same thickness and composition as the door leaf, side position (opposite to hinge side) in the lower end of the door;
- A 6 mm thick fire glass, model "Contraflam marine A0" from Saint-Gobain Int. AG., centred position in the upper region of the door;
- 2-point or 3-point latch system.

Total thickness of door leaf is 50 mm.

For further details, see drawings listed under Type Approval 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. size of door leaf:	1268 mm x 2280 mm (W x H)
Max. size of clear opening:	1200 mm x 2200 mm (W x H)
Max. size of fire technical glazing unit:	400 mm x 400 mm (W x H)

Any surface materials used on door leaf and door frame have to be approved for smoke and toxicity and low flame-spread characteristics (IMO FTP Code Annex 1 Parts 2 and 5) when required according to relevant rules.

The window has only been evaluated with respect to fire technical properties (e.g. strength requirements have not been considered). Arrangement and location of any window is subject to approval from relevant authority in each case (Ref. DNV GL Rules Pt.3, Ch.12, Sec.6, 1.1.3 or DNVGL-OS-C301 Ch.2 Sec.2, 8.2).

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.

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-0402-18T0818, dated 10 July 2018 from KOMERI, Busan, Korea.

Drawing No. SMD-180302-001 (total of 8 pages) dated 2 March 2018 from maker.

Tests carried out

Tested according to IMO 2010 FTP Code Part 3.

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



Job Id: **262.1-028592-1**
Certificate No: **TAF000011G**

Marking of product

The product is to be marked with name 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.