

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Class A Door**with type designation(s)
SM-A60-TS

Issued to

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

is found to comply with

DNV GL offshore standards**DNV GL rules for classification – Ships****DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations****Application :****Approved for use as an integrated part of fire retarding division of class A-60.****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 **2020-06-09**This Certificate is valid until **2025-06-08**.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-A60-TS (double leaf door with horizontal top hatch)"

is a double leaf hinged door with horizontal top hatch composed of an insulating core of 73 mm mineral wool of density 160 kg/m³ from KCC Corporation faced on each side with 3 mm steel sheets. Each door leaf and top hatch is equipped with 3 pcs. of "SM-WTH" type hinges. Active leaf of doors is equipped with a door lock type "SM-1105". Horizontal top hatch is equipped with 2 oneside dogs for locking hatch to the frame.

The three sided door frame is composed of 4 mm steel angles. The door frame is bolted (M8 bolts spaced 250 ~ 300 mm apart) or welded to the bulkhead..

The door may be fitted with:

- A 27 mm thick fire glass, model "Contraflan marine A60" from Saint-Gobain Int. AG., centered position in the upper region of the each leaf;
- Optional 2-point or 3-point latch system.

Total thickness of door is 80 mm.

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

The product is produced at the premises of Site Factory, 311 Yongjeonsaneopdanji-gil, Samnangjin-eup, Miryang-si, Gyeongsangnam-do, Korea.

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. size of door leaf: 1390 mm x 2538 mm (W x H)

Max. size of clear opening: 2600 mm x 3500 mm (W x H)

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

Any surface materials used have to 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.

External windows to comply with ISO 3903 (Ref. DNV GL rules for classification: Ships, Pt.3, Ch.12, Sec.6 [1.1.4]).

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.

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.).

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-0402-18T0388, dated 31 May 2018 from Korea Marine Equipment Research Institute, Republic of Korea.

Drawing No. SMD-180105-001 (total of 11 pages) dated 5 January 2018.

Job Id: **262.1-029805-1**
Certificate No: **TAF000011K**

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 in compliance with IMO MSC.1/Circ. 1319.

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.