DNV·GL

Certificate No:
TAF0000133

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Class A Door

with type designation(s)
SM-A60-MTD

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 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 **2019-07-18**
This Certificate is valid until **2024-07-17**.
DNV GL local station: **Gimhae Station**

Approval Engineer: **Helge Bjørnarå**

for **DNV GL**

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-MTD,
a double leaf, hinged door with door leaves constructed of 2 mm steel sheet with a 160 kg/m^3 mineral wool core (manufactured by KCC CORPORATION) with thickness of 75 mm. Each door leaf is fitted with three hinges. Ceramic door bumper, ø30 mm, is fitted along the both vertical/horizontal edge of the door leaf to the frame. Both the door leaves are also overlapped by bumpers to cover the middle seam of the door.

Total door leaf thickness is 80 mm.

The door may be fitted with a window type Contraflam marine A60. The glass panel thickness is 27 mm.

The four sided door frame is constructed of 4 mm steel sheets. A ceramic bumper (ø20 mm) was contained in the folded cavity in the internal flange of the door frame. The door frame is to be bolted (M8, pitch 250-300 mm) or welded to the bulkhead. If necessary, fire resistant sealing to be used for gaps between steel wall and door frame.

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. size of door leaf:	1201 mm x 2743 mm (W x H)
Max. size of clear opening:	2200 mm x 2700 mm (W x H)
Max. clear window opening:	400 mm x 400 mm (W x H)

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.).

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.

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-0402-18T1572 dated 3 September 2018 from KOMERI, Busan, Korea.

Drawing no. SMD-180409-001 (10 sheets) dated 9 April 2018 from manufacturer.

Tests carried out

Tested according to IMO 2010 FTP Code Part 3.

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

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 products listed in this certificate are 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.