

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Class H Door**with type designation(s)
SM-H120-WT

Issued to

Sung Mi Co., Ltd.
Gimhae-si Gyeongsangnam-do, Republic of Koreais found to comply with
DNV GL offshore standards**Application :****Approved for use as an integrated part of fire retarding divisions of class H-120.****Maximum size of clear opening: 1200 x 2100 mm (Width x Height).****Restricted application: Fire from hinged side of the door.**This Certificate is valid until **2020-12-31**.Issued at **Høvik** on **2016-03-17**DNV GL local station: **Gimhae MC & FIS**Approval Engineer: **Synnøve Bolstad Eri**for **DNV GL**

Petter Langnes
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.

Job Id: **262.1-011810-2**
Certificate No: **TAF000008D**

Product description

"SM-H120-WT"

a single leaf hinged door with door leaf made from 3 mm steel sheets, insulated with a core of 125 mm (50 + 25 + 50 mm) thick cerakwool (from KCC Corporation) of nominal density 128 kg/m³.

The door leaf is internally strengthened with stiffeners and fitted with three hinges and 2-point latch.

Additional clamp systems may be fitted to the door (see drawings Nos.D-101004-5; D-101004-6).

The door leaf can be fitted with window type "Contraflam Marine H120" (from Saint-gobain) with max. clear opening 250 x 450mm (Width x Height) and nominal thickness of 106mm.

The door frame is made of 4.5 mm steel and can be bolted by M10 bolts, tack- or fully welded to the bulkhead and fitted with ceramic fiber gaskets.

Total thickness of door leaf is 120 mm.

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

Application/Limitation

The door is approved for installation in steel bulkheads of class H-120. Installation of the door in bulkheads made of other materials (aluminium, FRP, etc.) are subject to case-by-case approval.

Max door leaf size: 1370 mm x 2240 mm (Width x Height).

External windows to comply with ISO 3903 (Ref. DNV Rules Pt. 3, Ch.3, Sec. 6 L104).

Any surface materials used on door leaf and door frame 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.

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, October 2015.

Test Report No. KOMERI-0402-11T224 dated 4 May 2011 from Korea Marine Equipment Research Institute, Korea.

Drawing No. D-101004 (8 pages) dated 4 October 2010 from manufacturer, except drawing No. D101004-7.

Tests carried out

Tested according to IMO FTPC Part 3 and the furnace HC time-temperature curve specified in EN1363-2:1999, and in compliance with IMO 2010 FTP Code Ch. 8.

Marking of product

The product is to be marked with name of manufacturer, type designation and fire-technical rating.

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 Standard for certification No. 1.2 Type Approval Item 4.