DNV·GL

Certificate No:
MEDB0000009

EC-TYPE EXAMINATION CERTIFICATE

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive 2013/52/EU, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. This Certificate is issued by DNV GL AS under the authority of the Government of the Kingdom of Norway.

This is to certify:

That the Fire Doors

with type designation(s)
A-60 Double Leaf Sliding Door Type GR

Issued to
PARMARINE OY LTD.
LEPPÄVIRTA, Finland

is found to comply with the requirements in the following Regulations/Standards:
Annex A.1, item No. A.1/3.16 and Annex B, Module B in the Directive. SOLAS 74 as amended, Regulation II-2/and IMO 2010 FTP Code

Further details of the equipment and conditions for certification are given overleaf.

Høvik, 2015-06-17
for **DNV GL AS**

This Certificate is valid until
2020-06-17

Notified Body No.: **0575**

Petter Langnes
Head of Department

DNV GL local office:
Turku

Piotr Orzechowski
Surveyor

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Product description

"A-60 Double Leaf Sliding Door Type GR"
double leafed sliding door with door leaf composed of a:

- 6 mm thick Glasroc F Marine boards from Gyproc Oy
- 0.7 mm thick Hexagonal wire mesh
- 20 mm thick insulation type Paroc Marine Slab LO 150 (density of 150 kg/m^3) from Paroc Oy
- 10 mm thick Glasroc F Marine boards from Gyproc Oy
- 20 mm thick insulation type Paroc Marine Slab LO 150 (density of 150 kg/m^3) from Paroc Oy
- 0.7 mm thick Hexagonal wire mesh
- 6 mm thick Glasroc F Marine boards from Gyproc Oy

The gypsum "Glasroc F Marine" boards are fixed to the rock wool layers with adhesive. Around the outer surface of the insulation layers the 0.7 mm hexagonal wire mesh is mounted. The joints of the boards were sealed with 100 mm wide cellulose polyester strip CP-100 (from Detox Oy) and tightened with fire mastic Sika Firesil Marine-N (from Sika).

The door frame is made of 3 mm thick steel profile. The frame is screwed with M10 screws (max. c/c-distance is 200 mm) to a 3 mm thick L-profile which is bolted to the bulkhead with M10 screws (max. c/c-distance is 200 mm).
The edges of the door leaves are fastened with U steel profiles and bottom part of the door leaves is fastened around with a two steel L-profiles. The top of the door frame consists of steel rolling devices (2 wheels on each door) and steel roller guide profile.
The gap between the profiles is sealed with the 2.5 x 40 mm Intumex LSK intumescent seal strip and between the door frame-bulkhead with 2.5 x 40 mm and 2.5 x 20 mm Intumex LSK intumescent seal strips.
The two door leaves are closing against each other by interconnecting overlap.
The door may be fitted with hose port, clear opening 150 x 150 mm (Width x Height) (for specification see VTT statement).

Total door leaf thickness 62 mm.

For further details see test reports listed under 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 A:	1764 x 2755 mm (Width x Height).
Max size of door leaf B:	1808 x 2755 mm (Width x Height).
Maximum clear opening of door:	3500 x 2700 mm (Width x Height).

The insulation materials and adhesives used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity. This requirement may also be applicable for surface materials used, if required by relevant rules and regulations.

The door has been successfully tested with extended test period in compliance with IMO MSC.1/Circ. 1319.

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

Type Examination documentation

Test report No. VTT-S-03774-14 dated 2 March 2015 from VTT Expert Services Ltd., Finland.
Test report No. VTT-S-00339-15 dated 9 March 2015 from VTT Expert Services Ltd., Finland.
Statement on the fire resistance of large "A" class sliding twin door with modified construction dated 9 April 2015 from VTT Expert Services Ltd., Finland.

Tests carried out
Tested according to IMO 2010 FTP Code part 3.

Marking of product
The product is to be marked with name of manufacturer, type designation, fire-technical rating, Mark of Conformity and USCG approval if applicable (see below).

Mark of Conformity
The manufacturer is allowed to affix the Mark of Conformity according to Article 11 in the Council Directive 96/98/EC on Marine Equipment and shall issue a Declaration of Conformity, only when the module D or E or F of Annex B in the same directive is fully complied with.

Module D: The quality system for production and testing shall be approved by the Notified Body.

Module E: The quality system for inspection and testing shall be approved by the Notified Body.

Module F: Compliance of the products to type as described in this EC Type-Examination Certificate must be verified by the Notified Body who also shall issue a Certificate of Conformity.

USCG Approval
A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005.