

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. 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 Sliding door

Issued to

PARMARINE LTD.
LEPPÄVIRTA, Finland

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2017/306**,
item No. MED/3.16. SOLAS 74 as amended, Regulation II-2/9, IMO 2010 FTP Code and IMO MSC.1/Circ.1511

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

This Certificate is valid until **2022-10-22**.

Issued at **Høvik** on **2017-10-23**

DNV GL local station:
Turku

Approval Engineer:
Tessa Biever



Notified Body
No.: **0575**

for **DNV GL AS**

Vidar Dolonen
Head of Notified Body

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.

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.



Product description

"A-60 Sliding Door SWT/LWT"

is composed of single leaf sliding door with door leaf made from zinc elektro coated 1.5 mm steel sheets on each side of an insulating core of 2 layers of 38 mm of stone wool Paroc Marine Slab LO 150 (manufactured by Paroc Group Oy- nominal density 150 kg/m³). The layers of insulation are bonded together with adhesive. No glue is used on the steel side of the stone wool slabs.

For stiffing the door leaf two U-profiles (25 mm x 40 mm x 25 mm with thickness of 2 mm) and seven L-profiles (20 mm x 25 mm with thickness of 2 mm) are used on each side of the doorleaf in vertical direction. Between the U-profiles 6 mm insulation plates, Glasrock F Marine are mounted.

Thickness doorleaf: 83 mm

The doorframe is made of 5 mm thick steel and insulated with 80 mm Paroc Marine Wired Mat 100 (manufactured by Paroc Group Oy - nominal density 100 kg/m³). The frame profiles are welded to the bulkhead.

In the gap between the door leaf and the frame intumescent seals are mounted to the gasket profiles around the frame. Two different seal dimensions are used: 2.5 mm x 40 mm and 2.5 mm x 20 mm. On the vertical edges of the closing side of the door Intumex L seal is used which is glued to the profiles. All other seals are Intumex LSK and are self adhesive types.

The roller track of the sliding door above the door leaf is fixed to the bulkhead with 5 pcs of 2 mm x 4 mm thick steel profiles. The door leaf moves by 2 pcs of rollers. The sill is made of 5 mm thick steel profiles.

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 clear opening: 2300 mm x 2000 mm (width x height)
Max size of doorleaf: 2447 mm x 2078 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.

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

Type Examination documentation

Test report Nos.:

- VTT-S-04956-16 dated 21 December 2016
- VTT-S-04447-17 dated 21 August 2017

both from from VTT, Finland.

Technical statements Nos.:

- VTT-S-04922-17 dated 13 September 2017 (valid until 13 September 2022)
- VTT-S-05508-17 dated 16 October 2017 (valid until 17 October 2022)

both from from VTT, Finland.

Drawings Nos. :

- LA60W_2016_0000 (5 sheets) rev. A1 dated 2016-11-07
- LA60W_2016_0001 sheets 1/7, 2/7, 3/7, 6/7 dated 2016-11-30
- LA60W_2016_0001 sheets 4/7, 5/7, 7/7 dated 2017-11-08
- LA60W_2016_0001 (7 sheets) rev. A1 dated 2017-06-19



Job Id: **344.1-000121-46**
Certificate No: **MEDB0000362**

Test carried out

Tested according to IMO 2010 FTP Code Part 3.

Marking of product

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