

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Class A Door**

with type designation(s)

LMD-H1 Class A-60 Single Leaf Hinged Fire Door, LMD-H1-G Class A-60 Single Leaf Hinged Fire Door with Glass

Issued to

Podszuck GmbH
Kiel, Schleswig-Holstein, Germany

is found to comply with

DNV GL rules for classification – Ships**DNV GL offshore standards****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 **Hamburg** on **2019-11-04**This Certificate is valid until **2022-02-12**.for **DNV GL**DNV GL local station: **Hamburg**Approval Engineer: **Pavel Golyshev**

Jörg Kallies
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

"LMD-H1 Class A-60 Single Leaf Hinged Fire Door"

"LMD-H1-G Class A-60 Single Leaf Hinged Fire Door with Glass"

Door leaf made of 1.0 mm to 2.0 mm steel sheets (acc. to the assessment no. PH 12699a) reinforced inside along the edges with 50 mm x 5 mm flat steel and insulated with 48 mm thick sandwich construction; according to drwg. no. 1.0 of the test report PGA10600 and drw. no. P01-601A; alternative insulation may be consisting of calcium silicate boards and alternative sill type according to the drawing no.: P01-601D; alternative fixing according to the drawing no.: P03-0210.

The door may be fitted with:

- concealed door closer, type "ITS96/multigenius" according to the drawing no.: P01-602 I or type "ITS 96-EMF" acc. to drwg. no.: P01-602 I Rev. A;
- hose port constructed as shown in the drawing no.: 60D008p03;
- clamping frame for marine doors in according to the drawing no.: P98-1101;
- rubber sealing acc. to drwg. no.: P01-601C (marking of indoors as "suitable gastight" and outdoors as "sprayweathertight");
- adjustable sealing frame acc. to the drwg. no. P01-601C_01.

Alternative door with fireproof rectangular window, type LMD-H1-G: door leaf constructed as described above mounted with a window according to drawings nos: P14-601A and P05-601B.02. The external dimension of the "Contraflamm N2" glass pane is 430 mm x 630 mm x 27 mm (width x height x thickness).

Acc. to the assessment no. PH 12707 door may be fitted with:

- two or three additional closing devices (dog handles, acc. to the drawings P01-601C_DH2.DWG and P01-601C_DH3.DWG);
- optional third hinge.

The door leaf thickness is 54-56 mm.

For further details, see the test report with drawings, as 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.

Maximum clear opening size of door (as tested): 1250 mm x 2200 mm (width x height).

Maximum clear view size of window (as tested): 400 mm x 600 mm (width x height).

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.

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.

Any adhesive used, other than the one used during testing, has to be tested for low flame spread characteristics according to IMO 2010 FTP Code part 5 or IMO FTPC Part 5 when in compliance with the 2010 FTP Code Ch. 5.2 and 8.

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.).

External windows to comply with DNV GL rules or a recognized national or international standard (Ref. DNV GL Rules for classification: Ships, Pt. 3, Ch. 12, Sec. 6 [1.1.3]).

Job Id: **262.1-032495-1**
Certificate No: **TAF00001BJ**

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 reports PGA10600 dated 27th of January 2015, PG10904 dated 11th of March 2002 and PG11590 dated 20th of March 2006; assessments PH 12546 dated 8th of March 2004, PH 12468 dated 6th of July 2003, PH 12699a dated 2nd of May 2005 and PH12707 dated 3rd of May 2005, all issued by Danish Institute of Fire and Security Technology, Hvidovre. Denmark.

Tests carried out

Tested according to IMO Res. MSC.61(67) – FTP Code, Annex 1, Part 3, IMO Res. MSC.307(88) – 2010 FTP Code, Annex 1, Part 3 and in compliance with IMO Res. MSC.307(88) – 2010 FTP Code, Clause 8.

The door has been successfully tested with extended test period for at least 68 minutes for insulation and 68 minutes for fire integrity in compliance with IMO MSC.1/Circ.1319.

Marking of product

The product is to be marked with name and address 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 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 Program DNVGL-CP-0338, Section 4.