

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:
MEDB0000901

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

that the Fire Doors

with type designation(s)
CGFM-1GS

issued to

Jiangsu Hailu Technology Incorporated Corporation
JIANGYIN, JIANGSU, China

is found to comply with the requirements in the following Regulations/Standards:

Regulation (EU) 2023/1667,
item No. MED/3.16. SOLAS 74 as amended, Regulation II-2/9, IMO 2010 FTP Code and IMO MSC.1/Circ.1511,
IMO MSC.1/Circ.1319

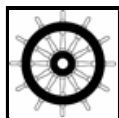
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2029-06-11**.

Issued at **Hamburg** on **2024-06-12**

DNV local unit:
Jiangyin NB & CMC

Approval Engineer:
Meike Grabau



Notified Body
No.: **0098**

for **DNV SE**

Mydlak-Röder, Christine
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) 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 SE 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

"CGFM-1GS"

is a class A-60 double-leaf fire door.

The door consists of rock wool insulation glued to a 3 mm ASK type inorganic fire board and a 0.8 mm stainless steel plate on both sides. The KMD-Y type marine rock wool insulation is produced by Tianchang KMD New Insulation Materials Co., Ltd. (120 kg/m³ nominal density). The ASK type inorganic fire board was produced by Zhangjiagang ASK Building Materials Industry Co., Ltd. and had a nominal density of 1000 kg/m³. The glue is a low flame-spread SY8412 type adhesive from You Xing Shark (Shanghai) Science and Technology Co., Ltd.

Total door leaf thickness: 57 mm.

Each door leaf is installed at one side with four 180 type stainless steel hinges (from Jiangyin Aoyin Machinery Co., Ltd.) and a C-7 type stainless steel lock (from Shanghai LiYong Lock Co., Ltd.), 1050 mm above the bottom of the door leaf at the other side. A stop plate of 26 mm wide is provided at the inner side of the door leave along its vertical direction. Fire seal strips of 20 mm x 4 mm are provided on the sides of the door leaves when they are closed.

The door frame is a four-sided door frame made by 1.5 mm thick stainless steel plate filled with KMD-Y type rock wool of 120 kg/m³ inside and fastened to the class A-60 bulkhead with screws (M5 x 25) spaced maximum 300 mm apart. The continuous grooves of 20 mm x 9 mm and 13 mm x 10 mm inside the door frame are provided for fixation of strips and rubber strips. Fire seal strips of 20 mm x 15 mm, 9 mm x 7.5 mm are installed at the inner side of the frame and between the door leaves and their outer sides.

Each door leaf may be fitted with a window constructed from 32 mm fireproof glass YS-A60, consisting of 5 mm tempered glass + 22 mm fireproof solution + 5 mm tempered glass, produced by Yixing Yushi Special Glass Co., Ltd..

For further details refer to the test report listed under "Type Examination documentation" below.

Application/Limitation

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 door leaf size, each: 1207 mm x 2817 mm (W x H)

Maximum clear door opening: 2300 mm x 2750 mm (W x H)

Maximum clear window opening: 400 mm x 600 mm (W x H)

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

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

Note that this is a fire safety certificate which only covers fire technical properties (i.e. not to cover strength evaluations related to water-tightness, weathertightness, etc.).

Type Examination documentation

Test report no. FT19179 dated 31 July 2019 from Far East Fire Testing Centre, Shanghai, China.

Tests carried out

Tested according to IMO 2010 FTP Code Annex 1, Part 3.

Marking of product

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

USCG approval limitations

The approval is limited to fire doors without windows and doors with total window area of 645 cm², or less, in each door leaf. For larger windows, USCG shall be contacted.