

# EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL 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-1FS Type Class A-60 Fire Door**

Issued to

**Jiangsu Hailu Technology Incorporated Corporation**  
**JIANGYIN, JIANGSU, China**

is found to comply with the requirements in the following Regulations/Standards:  
Regulation **(EU) 2019/1397**,  
**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**

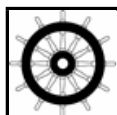
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2025-06-15**.

Issued at **Hamburg** on **2020-06-16**

DNV GL local station:  
**Jiangyin**

Approval Engineer:  
**Karolina Kusmider**



Notified Body  
No.: **0098**

for **DNV GL SE**

**Gerhard Aulbert**  
**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 European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment", signed February 27th, 2004, and amended by Decision No 1/2018 dated February 18th, 2019.

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 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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-1FS"

is a class A-60 single-leaf fire door. The door leaf is composed from the exposed side of 0.8 mm thick steel plate, 3 mm thick fire board, 39.4 mm thick rock wool plate of 120 kg/m<sup>3</sup> nominal density, manufactured by Tianchang KMD New Insulation Materials Co., Ltd., 3 mm thick fire board and 0.8 mm thick steel plate. The YB type fireproof board produced by Suzhou Youlian Marine Equipment Co., Ltd. has a nominal density of 1000 kg/m<sup>3</sup>. The insulation material inside the door leaf is fixed by the adhesive.

Total door leaf thickness: 47 mm.

The door frame is a four-sided door frame made by steel plate of 1.5 mm and is either welded or bolted (M6x30) to the bulkhead spaced maximum 300 mm apart. There is a fillet of 15 mm x 20 mm installed at the perimeter of door frame with rubber strip 9x7.5 mm.

The door leaf may be fitted with a window constructed from 30 mm fireproof glass YS-A60 type, consisting of 5 mm tempered glass, 20 mm fireproof solution and 5 mm tempered glass, produced by Yixing Yushi Special Glass Co., Ltd. Further, there is a fireproof door lock C-7 type from Shanghai Liyong Lock Co., Ltd., installed at the door leaf, located 1350 mm from the bottom. The door leaf is attached to the door frame by four hinges.

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

## Application/Limitation

Approved for use as an integrated part of fire retarding division of class A-60.

Max. size of a door leaf (W x H): 1239 mm x 2205 mm

Max. clear opening (W x H): 1200 mm x 2750 mm

Max. clear opening of a window (W x H): 400 mm x 600 mm

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.

Each product 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. does not cover any evaluation related to watertightness, weathertightness etc.).

## Type Examination documentation

Test Report No. FT18131 dated 2018-07-12 from Far East Fire Testing Centre, Shanghai, China.

## Tests carried out

Tested according to IMO Resolution MSC.307(88) - IMO FTP Code Annex 1, Part 3.

## Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation, fire technical rating, Mark of Conformity and USCG marking 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 cm<sup>2</sup>, or less, in each door leaf. Doors with a window area exceeding 645 cm<sup>2</sup> are not part of this certificate and need direct USCG approval.