

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)
ZMA60CX Type Class A-60 fire proof door

Issued to

Huanan Building Materials (Shenzhen) Co., Ltd.
Shenzhen, Guangdong, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773**,
item No. MED/3.16. SOLAS 74 as amended, Regulation II-2/9, IMO 2010 FTP Code and IMO MSC.1/Circ.1511

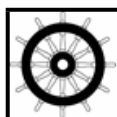
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2024-05-26**.

Issued at **Hamburg** on **2019-05-27**

DNV GL local station:
China South NB

Approval Engineer:
Roland Priebe



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.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.



Product description

"ZMA60CX Type Class A-60 fire proof door"

is a class A-60 single-leaf fire door. It consists of rock wool insulation glued to a 6 mm calcium silicate board and a 0.55 mm galvanized steel plate on both sides. The rock wool insulation material was produced by Rockwool Firesafe Insulation (Guangzhou) Co., Ltd. and was 50 mm nominal thick, with 120 kg/m³ nominal density, 0.46 % moisture content and 1.24 % organic content. The LGB-0 type calcium silicate board was produced by Suzhou Weiyu Marine Materials Decoration Co., Ltd. and had a nominal density of 1100 kg/m³. The glue is a low flame-spread TH-99A type polyurethane adhesive from Jiujiang City Special Adhesive Co., Ltd.

The door leaf is fitted with a window 400 mm below the top. The window is constructed from 32 mm fireproof glass type FB-32 produced by the manufacturer itself, consisting of 5 mm normal glass + fireproof solution + 5 mm normal glass. Further the door leaf has a hose port door at the left-lower corner with 150 mm x 150 mm clear opening size and spring hinges along one side.

The door is installed with three 5" stainless steel hinges along one side and a fireproof lock at the other side, 1000 mm above the bottom of door leaf. The lock is a C-1 type stainless steel door lock from Nantong Hujiang Locks Co., Ltd.

The door frame is a three-sided door frame made by steel plates of 3 mm and is fastend to the bulkhead with M5 x 14 mm stainless steel bolts. There is a continuous groove arranged at the inside of the door frame for the fireproof expansion rubber strip to fill in. The door frame had a sill at the bottom which was made by 1.2 mm profile.

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 door leaf (W x H x T): 1036 mm x 2206.5 mm x 50 mm

Max. clear opening (W x H): 1000 mm x 2200 mm

Max. clear opening of window (W x H): 420 mm x 420 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.

Type Examination documentation

Test Report No. FT13188 dated 2013-07-08 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 cm², or less, in each door leaf. Doors with a window area exceeding 645 cm² are not part of this certificate and need direct USCG approval.