EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00007ZV

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 AS under the authority of the Government of Norway.

This is to certify:

That the 'A' and 'B' class fire proof windows and side scuttles

with type designation(s)
WDF-C36 Type class A-0 Fire Rectangular Window

Issued to
Wuxi Dongzhou Marine Equipment Co., Ltd
Wuxi, **China**

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2021/1158,**
item No. MED/3.25. SOLAS 74 as amended, Regulation II-2/9, IMO MSC/Circ.1120 and IMO 2010 FTP Code, IGC Code 3

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

This Certificate is valid until **2027-03-21**.

Issued at **Høvik** on **2022-03-22**

DNV local station:
Jiangyin NB & CMC

Approval Engineer:
Lars Erik Hallbeck Parelius

Notified Body
No.: **0575**

for **DNV AS**

Sverre Olav Bergli
Head of Notified Body

NORWEGIAN ACCREDITATION PROD 019

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

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

"WDF-C36 Type class A-0 Fire Rectangular Window",
is a window consisting of two rectangular glass panes constructed of 8 mm thick toughened glass and 16 mm thick fire-resistant glass (including 4 mm thick dry-type fire-proof fluid) manufactured by Vetrotech Saint-Gobain Kinon GmbH. There is an air gap of 16 mm in between.

The window is insulated with one layer of 7 mm thick ceramic wool of type TG-II (nominal density of 170 kg/m^3) by Yixing Yuanyang Ship Fitting Co., Ltd. In between the glass and frame, on the fire-resistant glass side, there is a 4 x 15 mm anti-smoke strip manufactured by Yingkou Hangxing Industrial Co., Ltd. On the toughened side, there is a 5 x 15 mm watertight rubber strip manufactured by Jiangyin Dingyan Seals Co., Ltd. Both sides are sealed with a neutral silicone gel manufactured by Guangzhou Jointas Chemical Co., Ltd. Perpendicular to the glass is a 5-8 mm thick fireproof rubber gasket manufactured by Yingkou Hangxing Industrial Co., Ltd.

The glass retaining frame consists of a stainless steel plate which is fixed to the steel main frame by means of screws (M6 x 16 mm). The main frame is fixed to the bulkhead structural core by means of welding.

Total thickness: 40 mm.

For further details, see drawings listed under Type Examination documentation below.

Application/Limitation

The window is approved for installation in steel bulkheads of class A-0. Other applications are subject to case-by-case approval.

Restricted application: fire against 16 mm fire-resistant side.

Maximum size of window:	2340 x 2040 mm (W x H)
Maximum size of total glazing unit (clear view):	2280 x 1980 mm (W x H)
Maximum size of each glazing unit (clear view):	1115 x 1980 mm (W x H)

The window has only been evaluated with respect to fire technical properties (e.g. strength requirements have not been considered). Arrangement and location of any window is subject to approval from relevant authorities in each case.

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

Type Examination documentation

Test report No. FT21395 dated 5 January 2022 from FEFTC, Shanghai, China.

Drawing No. 261WDF2009-00 dated 12 June 2021 from manufacturer.

Tests 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 and the MED Mark of Conformity (see first page).