

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

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 GL AS under the authority of the Government of the Kingdom of Norway.

This is to certify:

That the Windows and side scuttles

with type designation(s)

Class B-15 Fire Resistant Window (SG-FS1R1B-B15 and SG-FS1R1P-B15)

Issued to

Samgong Co., Ltd.
Busan 11, Republic of Korea

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

Regulation **(EU) 2017/306,**

item No. MED/3.25. SOLAS 74 as amended, Regulation II-2/9, IMO MSC/Circ.1120 and IMO 2010 FTP Code

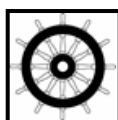
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2022-08-28.**

Issued at **Høvik** on **2017-08-29**

DNV GL local station:
Gimhae Station

Approval Engineer:
Tessa Biever



Notified Body
No.: **0575**

for **DNV GL AS**

Vidar Dolonen
Head of Notified Body



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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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



Product description

"Class B-15 Fire Resistant Window (SG-FS1R1B-B15 and SG-FS1R1P-B15)"
is a window composed of 5 mm fire resistant glass, 13 mm interlayer and 5 mm fire resistant glass.

Total glass thickness is 23 mm.

The window is placed in the frame between a L-shaped steel bar and a steel glass keeper, which is attached to a steel window box. The frame is filled with ceramic wool insulation and welded to the bulkhead.

For further details, see drawing mentioned under Type Examination documentation below.

Application/Limitation

The window is approved for installation in approved B-15 steel bulkheads. Other applications are subject to case-by-case approval.

Maximum size of exposed fire technical glazing unit is 1500 mm x 2000 mm (h x w).

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.

The insulation materials used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

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

Type Examination documentation

Test Report Nos. :

- KOMERI-0402-12T1107 (Type SG-FS1R1P-B15) dated 17 October 2012
- KOMERI-0402-12T720 (Type SG-FS1R1B-B15) dated 17 October 2012

both from Korea Marine Equipment Research Institute (KOMERI), Busan, Korea.

Drawing Nos.:

- RD-FS1R1P-B15 Rev. 1 dated 10 September 2012 (Type SG-FS1R1P-B15)
- SG-FS1R1B-B15 Rev. 0 dated 22 June 2012 (Type SG-FS1R1B-B15)

both 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 and fire-technical rating and MED Mark of Conformity (see first page).