

EC-TYPE EXAMINATION CERTIFICATE

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive 2013/52/EU, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. 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)
SG-FS2R2-A0

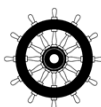
Issued to

Samgong Co., Ltd.
Busan, Republic of Korea

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

Annex A.1, item No. A.1/3.25 and Annex B, Module B in the Directive SOLAS 74 as amended, Regulation II-2/9, IMO MSC/Circ.847, IMO MSC/Circ.1120 and IMO 2010 FTP Code

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

Høvik, 2015-06-18
for **DNV GL AS**This Certificate is valid until
2020-06-17Notified Body No.: **0575**

Petter Langnes
Head of DepartmentDNV GL local office:
Pusan

Synnøve Bolstad Eri
Surveyor

Product description

"SG-FS2R2-A0"

is a rectangular window consisting of the following:

- Main frame, made of 12 mm thick steel (breadth: 100 mm), welded to the bulkhead
- Glass keeper, screwed to the main frame (M6L12 screws, maximum distance between screws is 100 mm)
- Glass stopper, welded to the main frame on the opposite side to the glass keeper
- Glass unit, total thickness 37 mm, fitted between the glass keeper and glass stopper. The glass unit is composed of:
 - o Pressure glass, 12 mm thick, of type "Toughened Glass" from Jeong-AM Safety Glass
 - o Air gap, 6 mm thick, fitted with middle bars made from 6 mm thick Al. alloy along the sides.
 - o Fire resistant glass, 19 mm thick, of type "FS2R2-A0" from Samgong Co., Ltd

The window is fitted with setting blocks (made from hardboard) and packing (synthetic rubber) between window unit and main frame

For further details, see drawing 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 Pressure glass.

Maximum size of exposed fire technical glazing unit: 2500 x 1500 mm (width x height).

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, use and maintenance.

Type Examination documentation

Test report No. AK2015-0238 dated 7 May 2015 from Fire Insures Laboratories of Korea (FILK), Korea.

Drawing No. SG-FS2R2-A0N rev. 0 dated 16 March 2015 from the manufacturer.

Tests carried out

Tested according to IMO 2010 FTP Code part 3.

Marking of product

The product is to be marked with name of manufacturer, type designation, fire technical rating and the MED Mark of Conformity (see below).

Mark of Conformity

The manufacturer is allowed to affix the Mark of Conformity according to Article 11 in the Council Directive 96/98/EC on Marine Equipment and shall issue a Declaration of Conformity, only when the module D or E or F of Annex B in the same directive is fully complied with.

Module D: The quality system for production and testing shall be approved by the Notified Body.

Module E: The quality system for inspection and testing shall be approved by the Notified Body.

Module F: Compliance of the products to type as described in this EC Type-Examination Certificate must be verified by the Notified Body who also shall issue a Certificate of Conformity.