

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 Norway.

This is to certify:

That the Fire Doors

with type designation(s)
SC-AH60-BHD (A-60 Class Fire Door)

Issued to

Sejin Technical Industries Co., Ltd.
Yongsan-si, Gyeongsangnam-do, Republic of Korea

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 **2022-11-07**.

Issued at **Høvik** on **2019-06-25**

DNV GL local station:
Gimhae Station

Approval Engineer:
Karolina Kusmider



Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
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 United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

"SC-AH60-BHD (A-60 Class Fire Door)"

is double leaf, hinged steel door. Each door leaf is equipped with 4 steel hinges and insulated with 48 mm thick layer of mineral wool with nominal density of 140 kg/m³ (manufactured by Byucksan Co., Ltd.). Insulation is covered from both sides with 0.6 mm thick steel sheets and bonded by means of adhesive. Each leaf is additionally stiffened around with 1.6 mm thick steel C-profile and is fitted with 1.6 mm thick doubler plates: in the upper part 100 mm high strap along the width of door leaf and in the lower central corners of the each door leaf- plate with dimension 100 x 100 mm (W x H).

Ceramic gaskets (bumpers) are fitted in the door frame. One of the door leaves may be fitted with 28 mm thick window type: Contra flam marine A60 (manufactured by Saint Gobain).

Insulated door frame may be bolted with fixed machine screws M5x20 (with constant spacing of 300 mm) or welded to the bulkhead.

Total door leaf thickness: 48 mm

For further details see drawings in test report stated under Type Examination documentation, below.

Application/Limitation

The door is approved for installation in steel bulkheads of class A-60. Installation of the door in bulkheads made of other materials (aluminium, FRP, etc.) are subject to case-by-case approval.

Max. size of clear door opening:	2000 x 2100 mm	(W x H)
Max. size of clear window glazing unit:	400 x 400 mm	(W x H)
Max. size of primary door leaf:	1015.5 x 2112 mm	(W x H)
Max. size of secondary door leaf:	1015.5 x 2112 mm	(W x H)

The insulation materials and adhesive 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. KOMERI-0402-16T4165 dated 6th July 2017 from Korea Marine Equipment Research Institute

Drawings from manufacturer No. ACTOSYS-AC-A60-HBD-001-01/02/03 Rev. 0 dated 30th August 2016.

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, Mark of Conformity and USCG approval number 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. For larger windows, USCG shall be contacted.