DNV·GL

Certificate No:
MEDB00005NM

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 "B" Class divisions, fire integrity

with type designation(s)
BIP C452: B-0 Class Continuous Ceiling

Issued to
BIP Industries Co., Ltd.
Yangsan-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/3.11b. SOLAS 74 as amended, Regulation II-2/3.4 & II-2/9, IMO 2010 FTP Code, IMO MSC/Circ.1120 and IMO MSC.1/Circ.1581

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

This Certificate is valid until **2024-09-01**.
Issued at **Høvik** on **2019-09-02**

DNV GL local station:
Gimhae Station

Approval Engineer:
Helge Bjørnarå

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, and amended by Decision No 1/2019 dated February 22nd, 2019.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

NORWEGIAN ACCREDITATION PROD 019

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Product description

"BIP C452: B-0 Class Continuous Ceiling",
ceiling composed of square shaped panels suspended below the structural steel deck, constructed of an insulation core of 25 mm thick mineral wool (manufactured by KCC Corporation, Korea) of density 60 kg/m^3, covered with 0.6 mm thick perforated or non-perforated steel sheets on exposed side.

The panels are fastened together by steel clips in the longitudinal direction and to clip bars in the transverse direction. The clip bars are fastened to the carrying channels by wire clips.

For suspension to deck the hanger sets are welded to the structural steel deck in upper end and fastened by screws to carrying channels in the lower end.

Distance between clip bars: 600 mm
Maximum distance between carrying channels: 900 mm
Maximum distance between hanger sets along carrying channels: 900 mm
Maximum distance between bulkhead and the nearest carrying channel: 300 mm

The panels are connected to the bulkhead by a 1 mm steel profile.

Total thickness of panels is 25.6 mm.

For further details, see the drawings mentioned under Type Examination documentation.

Application/Limitation

Approved for use as a horizontal continuous fire retarding division of class B-0.

Max panel size is 600 mm x 600 mm (L x W).

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 and use.

Type Examination documentation

Test Report No. AK2014-0177 dated 9 May 2014 from FILK, Gyeonggi-do, Korea.

Drawing No. F2014-C452-R0 (6 pages) dated 5 March 2014 from BIP Industries Co., Ltd.

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, the MED Mark of Conformity and USCG Approval Number if applicable (see first page).