EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB000080G

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 & B Class divisions fire integrity: B class divisions.

with type designation(s)
BIP C-645D B-15 Class Continuous Ceiling

Issued to
BIP Industries Co., Ltd. Goseong
Goseong-gun, Gyeongsangnam-do, Republic of Korea

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2021/1158,**
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 **2027-07-30**.

Issued at **Høvik** on **2022-07-31**

DNV local station:
Gimhae Station

Approval Engineer:
Karolina Kuśmider

Notified Body
No.: **0575**

for **DNV AS**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

"BIP C-645D B-15 Class Continuous Ceiling"
composed of panels suspended below structural deck. The panels consist of 48.5 mm thick mineral wool (manufactured by KCC Corporation) of 140 kg/m3 density, covered with 0.5 mm thick galvanized steel sheet from the top side, 0.6 mm thick galvanized non-perforated or perforated steel sheet with non-woven fabric from the underside.

Total panel thickness: 50 mm

The panels are connected together by a T-carrier with a cover and are fastened to the deck by screws or welding between hanger sets and the T-carrier. Along the long edge, the panels are joined together by means of male and female sliding arrangement. Ceiling panels are placed on top of T-carrier and top profile.

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

Application/Limitation

Approved for use as a horizontal continuous fire retarding division of class B-15.

Maximum panel size: 300 mm x 2370 mm (W x L).
Maximum distance between hanger sets along the T-carrier: 1200 mm.
Maximum distance between bulkhead and hanger set: 300 mm.

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 maintenance.

Type Examination documentation

Test report No. AK2022-0172 dated 30 May 2022 from Fire Insurers Laboratory of Korea (FILK), Korea.

Drawing No. F2022-C645D-R0 dated 11 February 2022 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 and address of manufacturer, type designation, fire technical rating, MED Mark of Conformity and USCG approval number if applicable (see first page).