



Marine & Offshore

Certificate number: 22783/C0 BV

File number: ACI1000/177/040

Product code: 5110H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

BIP INDUSTRIES CO., LTD. GOSEONG

Gyeongsangnam-do - KOREA (REPUBLIC OF)

for the type of product

B15 CLASS CEILINGS

B-15 Class Continuous Ceiling, type "BIP C-513"

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships Part C, Chapter 4

SOLAS 74 Convention, as amended, Regulations II-2/9, II-2/3.4

IMO Resolution MSC.307(88) - (2010 FTP Code)

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate is a renewal of certificate N° 22783/B0 BV expiring on 02/03/2021

This certificate will expire on: 02 Mar 2026

For Bureau Veritas Marine & Offshore,

At BV PUSAN, on 15 Feb 2021,

Chang-Uk HONG



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 2 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

B-15 Class Continuous Ceiling, type "BIP C-513"

Composed of steel cassettes suspended below the structural deck by means of P703 hanger sets and P701 main runners. A panel cassette consists of 25 mm thick and 275 mm wide "**Mineral Wool**" (nominal density 60 kg/m³; manufactured by KCC Corporation, Korea) laid on 0.6 mm thick galvanized steel sheet. An additional 50 mm thick over-laying "**Mineral Wool**" (nominal density 80 kg/m³; manufactured by KCC Corporation, Korea) is laid on the cassettes.

At junction, the exposed side is fitted with a P704 connection profile and the unexposed side with a 1 mm thick support channel with dimensions 40x26x50x26x40 mm.

Maximum distance between hanger sets and main runner: 1400 mm

Minimum distance between structural deck and exposed surface of cassette: 300 mm

Maximum length of panels: 2290 mm (practically max.5000 mm maybe produced under responsibility of manufacturer's engineering specification)

Maximum width of panels: 300 mm

Total thickness of ceiling: 25 mm (panels) + 50 mm (mineral wool overlay) = 75 mm

Optional: When perforated galvanized steel cassette is used, fabric membrane ("**Non-Woven Fabric**" manufactured by DAE KYOUNG CHEMICAL CO., LTD.) is laid between steel sheet and mineral wool board.

2. DOCUMENTS AND DRAWINGS:

As per the Manufacturer's drawings N° F2014-C513-R0 dated 01/09/2014.

3. TEST REPORTS:

Test report N° AK2014-0555 dated 05/11/2014, as per IMO 2010 FTP Code Annex 1 Part 3, from FILK, Korea.

4. APPLICATION / LIMITATION:

4.1 - The fitting aboard to be the same as used for the test.

4.2 - The following components shall comply with the requirements of the relevant Bureau Veritas rules and be type approved:

- the insulating materials "**Mineral Wool**" (nominal densities 60 kg/m³ and 80 kg/m³),
- any added finish surface material(s).

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The **B-15 Class Continuous Ceiling, type "BIP C-513"** is to be supplied by **BIP INDUSTRIES Co., Ltd. (Goseong)** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **BIP INDUSTRIES Co., Ltd.(Goseong)** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

6. MARKING OF PRODUCT:

The product or packing is to be marked with Manufacturer name, type, designation and fire-technical rating.

7. OTHERS:

7.1 - It is **BIP INDUSTRIES Co., Ltd. (Goseong)**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This Certificate supersedes the Type Approval Certificate N° 22783/B0 BV issued on 02/03/2016 by the Society.

*** END OF CERTIFICATE ***