



Marine & Offshore

Certificate number: 22705/C0 BV

File number: ACI 1000/177/078

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.

Gyeongsangnam-do - KOREA (REPUBLIC OF)

for the type of product

B15 CLASS CEILINGS

B-15 CLASS CONTINUOUS CEILINGS - Type "BIP C-162"

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 Res MSC.307(88) -(2010 FTP Code)-
IMO MSC/Circ.1120

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 will expire on: 31 May 2026

For Bureau Veritas Marine & Offshore,

At BV PUSAN, on 31 May 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.

The electronic version is available at: <http://www.veristarm.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=hryn2ycepy>

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 Ceilings - Type "BIP C-162"

Ceiling panels suspended below a structural deck by means of hanger sets connected with a bulkhead by screws.

A 30 mm thick ceiling panel is composed of:

- 0.6 mm thick steel cassette on the exposed face,
- insulation core made up of two layers x 15 mm thick mineral wool boards (nominal density 200 kg/m³, manufactured by KCC CORPORATION (Gimcheon Plant), Korea) glued to the steel sheet by adhesive "BNUR-1000" (manufactured by BN STEEL CHEMICAL Co., Ltd., Korea, maximum application rate 200 g/m²).

Panels are hung up by hangers and joined by T-carriers fastened with screws to the lower side of panels. The panels are connected each other by omega profiles and screw fittings on unexposed side. The insulation material is filled up between joint profile and panel as well.

Total thickness of the ceiling panel: 30 mm (excluding omega profile)

Tested maximum ceiling panel size: 620 mm wide, 2420 mm long (practically max. 3600 mm maybe produced under responsibility of manufacturer's engineering specification)

Minimum distance between ceiling panel and deck: 300 mm

2. DOCUMENTS AND DRAWINGS:

As per the Manufacturer's drawing N° F2019-C162-R0, rev. ORI. dated Aug. 06, 2019.

3. TEST REPORTS:

Test report N° KOMERI-0402-19T3670(E)-A issued on Feb. 10, 2020 as per IMO 2010 FTP Code, Annex 1, Part 3 issued by KOMERI, Korea.

4. APPLICATION / LIMITATION:

4.1 - The following components have to be covered by a valid type approval certificate, issued by the Society:

- the insulating material "mineral wool #200"
- the adhesive "BNUR-1000"
- any added finish surface material(s).

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

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The "**BIP C-162**" are to be supplied by **BIP INDUSTRIES CO., LTD.** 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.** 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.**'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° 22705/B0 BV issued on 13 May 2016 by the Society.

*** END OF CERTIFICATE ***