



Certificate number: 22784/D0 BV

File number: ACI1000/177/052

Product code: 5030H

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 BULKHEADS

B-15 Class Bulkhead, type "BIP W-163"

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)-, as amended

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° 22784/C0 BV expiring on 02/03/2026

This certificate will expire on: 02 Mar 2031

For Bureau Veritas Marine & Offshore,

At BV PUSAN, on 21 Jan 2026,

Seungbeom HONG

This certificate was created electronically and is valid without signature



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 SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

B-15 Class Bulkhead, type "BIP W-163"

The 80 mm thick bulkhead is composed of:

- 0.6 mm thick galvanised steel sheet (C-shape cassette with dimensions 20x30x600x30x20 mm),
- 15 mm thick layer of "**Mineral Wool Board**" (nominal density 200 kg/m³; manufactured by KCC Corporation, Korea),
- 50 mm air gap,
- 15 mm thick layer of "**Mineral Wool Board**" (nominal density 200 kg/m³; manufactured by KCC Corporation, Korea),
- 0.6 mm thick galvanised steel sheet (C-shape cassette with dimensions 20x30x600x30x20 mm).

The steel sheets are glued to mineral wool boards with adhesive "**OCUA-1000RC**" (manufactured by DAE HAN POLYMER Ind. Co., Ltd.) or adhesive "**BNUR-1000**" (manufactured by BN Chemical Co., Ltd.) with a maximum application rate 200 g/m².

At the bottom, the cassettes (=panels) are fitted on square pipe made of 2.1 mm thick steel box (30x30 mm).

The cassettes are jointed to each other with fitting screws along their 30 mm edge making a side panel. These side panels are fixed back to back and separated on edges by steel omega-profiles.

Maximum length of panels: 2480 mm

Maximum width of panels: 600 mm

Total thickness of bulkhead: 80 mm

2. DOCUMENTS AND DRAWINGS:

As per the Manufacturer's drawings N° F2014-W163-R0, rev.ORI dated 20/10/2014.

3. TEST REPORTS:

Test report N° AK2014-0615 dated 02/01/2015, as per IMO 2010 FTP Code Annex 1 Part 3, from FILK, Korea.

4. APPLICATION / LIMITATION:

The fitting aboard to be the same as described in §1.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The **B-15 Class Bulkhead, type "BIP W-163"** is 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.

5.4 - For information, **BIP INDUSTRIES Co., Ltd.** has declared to Bureau Veritas the following production site:

BIP INDUSTRIES Co., Ltd.
67, Baedungongdan-gil, Heohwa-myeon
Gosung-gun, Gyeongsangnam-do
KOREA (REPUBLIC OF)

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

- the insulating material "**Mineral Wool Board**" (nominal density 200 kg/m³),
- the adhesive materials "**OCUA-1000RC**" and "**BNUR-1000**", and
- any added finish surface material(s).

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° 22784/C0 BV issued on 15/02/2021 by the Society.

*** END OF CERTIFICATE ***