



Marine & Offshore

Certificate number: 37094/B0 BV

File number: ACI1000/177/066

Product code: 5040H

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

B0 CLASS BULKHEADS

B-0 Class Bulkheads - Type "BIP W-351"

(restricted application - see §4.1)

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)

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: 12 Aug 2024

For Bureau Veritas Marine & Offshore,

At BV PUSAN, on 12 Aug 2019,

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-0 Class Bulkheads - Type "BIP W-351"

The 25 mm thick panels are composed of a "**mineral wool**" board (density 140 kg/m³, manufactured by KCC Co., Ltd.) glued on both side with two 0.6 thick steel sheets by the polyurethane adhesive "**OCUA-1000RC**" (application 0.15 mm; manufactured by DAE HAN POLYMER Ind. Co., Ltd.)

Alternative polyurethane glue: "**BNUR-1000**" (maximal application rate: 200 g/m²; manufactured by BN Steel Chemical Co., Ltd.).

The panels are connected on one side (exposed side of the bulkhead) by connector clip joints.

Maximum width of a panel: 540 mm
Total thickness of bulkhead: 25 mm

2. DOCUMENTS AND DRAWINGS:

As per the Manufacturer's drawings N° F2013-W351-R0 dated 31/07/2013.

3. TEST REPORTS:

Test report N° AK2013-0238 dated 04/11/2013, as per IMO 2010 FTP Code Annex 1 Part 3, from FILK, Korea.

4. APPLICATION / LIMITATION :

4.1 - **Restricted application:** The use is restricted to application where fire hazard has been identified as coming from the side including the connector clip joints.

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

- the insulating material "**mineral wool**" (nominal density 140 kg/m³),
- the adhesive materials "**OCUA-1000RC**" and "**BNUR-1000**",
- any added finish surface material(s).

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

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The **B-0 Class Bulkheads - Type "BIP W-351"** 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° 37094/A0 BV issued on 05/06/2014 by the Society.

*** END OF CERTIFICATE ***