



Marine &amp; Offshore

Certificate number: 38101/B0 BV

File number: ACI 1000/177/012

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 Bulkheads - Type "BIP W-106S"

**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: 15 Oct 2024**

**For Bureau Veritas Marine & Offshore,**

At BV PUSAN, on 15 Oct 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](http://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.veristarp.com/veristarb/jsp/viewPublicPdfTypepec.jsp?id=t9s0ynjn5q>

BV Mod. Ad.E 530 June 2017

This certificate consists of 2 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION :

#### **B-15 Class Bulkheads - Type "BIP W-106S"**

Consists of panels of two 0.6 mm thick steel sheets insulated with two layers of 22 mm thick mineral wool (density 140 kg/m<sup>3</sup>, manufactured by KCC Co., Ltd.) with an airgap of 5 mm in between.

Panel's end perimeter (50 mm long) is filled with 50 mm thick mineral wool (density 240 kg/m<sup>3</sup>, manufactured by KCC Co., Ltd.).

Mineral wool is glued on both sides to steel sheets with adhesive "OCUA 1000RC" (manufactured by DAE HAN POLYMER Ind. Co., Ltd., maximum application thickness 0.15 mm) or "BNUR-1000" (manufactured by BN STEEL CHEMICAL Co. Ltd, maximum application rate 200 g/m<sup>2</sup>).

Perforated corrugated steel sheet (thickness 0.6 mm, depth 6 mm) is inserted in between mineral wool layers. Panels are joined to each other by means of M-profile and spline joint (30x3 mm).

Total thickness of a panel: 50 mm

Maximum width of a panel: 600 mm

### 2. DOCUMENTS AND DRAWINGS :

As per the Manufacturer's drawing n° F2013-W106S-R0 dated December 16, 2013.

### 3. TEST REPORTS :

Test report n° AK2013-0460 dated March 6, 2014 (testing date: January 15, 2014) as per IMO 2010 FTP Code Annex 1 Part 3 from FILK, Korea.

### 4. APPLICATION / LIMITATION :

4.1 - The following component(s) shall have to comply with the requirements of BV Rules and be type approved :

- the insulating material, "**Mineral wool Board #140 & #240**"
- the adhesives "**OCUA 1000RC**" or "**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 W-106S** 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.

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

**BIP Industries Co., Ltd.**  
28, Sonam 3-gil, Yangsan-si,  
Gyeongsangnam-do  
KOREA (REPUBLIC OF)

### 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°38101/A0 BV issued on 05/06/2014 by the Society.

\*\*\* END OF CERTIFICATE \*\*\*