



Marine & Offshore

Certificate number: 34216/B0 BV

File number: ACI1000/177/024

Product code: 5030H

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

www.veristar.com

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-E80S"

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 will expire on: 29 Jan 2024

For Bureau Veritas Marine & Offshore,
 At BV PUSAN, on 29 Jan 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.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

B-15 Class Bulkheads - Type "BIP W-E80S" with Cable Conduit System

Composed of "MINERAL WOOL" board (nominal density 140 kg/m³, manufactured by KCC Co., Ltd., Korea), bonded on both sides with 0.6 mm thick galvanized steel sheet (manufactured by POSCO, Korea) thanks to "OCUA-1000 RC" urethane adhesive (manufactured by DAE HAN POLYMERS IND. Co. KOREA).

Vertical edges of panels are jointed each other by a steel spline joint profile (3 mm thick, 30 mm long).

The bulkhead is fixed:

- on each vertical and horizontal edge, by a 2.0 mm thick U-profile steel channel (40 mm x 56 mm x 40 mm) and,
- on the frame, by 5 mm thick L-profile fixing cleats (50 x 50 x 100 mm).

A panel may be inserted air gap channel used for pre-cable conduits. The cable conduit is terminated 800 mm above the bottom of panels.

Cable conduit way maximum dimensions: 80 mm width x 24 mm depth (from unexposed side).

Maximum width of panel: 600 mm

Total thickness of bulkhead: 50 mm

2. DOCUMENTS AND DRAWINGS:

As per the Manufacturer's drawing N° F2012-WE80S-R0 dated 02/11/2012.

3. TEST REPORTS:

Test report N° A2012-0932, dated 20/02/2013, as per IMO 2010 FTP Code Annex 1 Part 3, from FILK, Korea (testing date: 29/11/2012).

4. APPLICATION / LIMITATION:

4.1 - The following component(s) shall comply with the requirements of the relevant Bureau Veritas rules and be type approved:

- the insulating material(s) "MINERAL WOOL, density 140 kg/m³",
- the adhesive material "OCUA-1000 RC",
- 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 **B-15 Class Bulkheads - Type "BIP W-E80S" with Cable Conduit System** 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 concerning the production phase modules, **BIP INDUSTRIES Co., Ltd.** has declared the following manufacturing 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° 34216/A0 BV issued on 01/11/2013 by the Society.

*** END OF CERTIFICATE ***