

Certificate Of Fire Approval

This is to certify that the product detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations and with the International Convention for the Safety of Life at Sea, (SOLAS), 1974, as amended, for use on ships and offshore installations classed with Lloyd's Register, and for use on ships and offshore installations when authorised by contracting governments to issue the relevant certificates, licences, permits etc.

Manufacturer	BIP Industries Co., Ltd.
Address	1817, Jungang-Daero, Geumjeong-gu, Busan, Republic of Korea
Type	B-15 Bulkhead
Description	Fire Resisting 'B' Class Bulkhead
Trade Name	"BIP W-302E"
Specified Standard	IMO Res. MSC.307(88) – (2010 FTP Code) Annex 1 Part 3

This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document and its supplementary Type Approval Terms and Conditions form part of this Certificate.

This certificate remains valid unless cancelled or revoked, provided the conditions in the attached Design Appraisal Document are complied with and the equipment remains satisfactory in service.

Jessica Evans

Senior Surveyor to Lloyd's Register EMEA
A member of the Lloyd's Register group

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DESIGN APPRAISAL DOCUMENT

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR21347602SF

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions, and this Design Appraisal Document forms part of the Certificate.

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APPROVAL DOCUMENTATION

TEST REPORTS

Fire Insurers Laboratories of Korea (FILK), 1030 Gyeongchung-daero, Ganam-eup, Yeosu-Si, Gyeonggi-Do, 469-881, Korea; Test Report No. AK2016-0404 dated 8th July 2016.

CONDITIONS OF CERTIFICATION

1. Bulkhead panel interlocking system consisting of: 0.6mm thick steel sheet panels + 0.4mm thick perforated steel sheet (diameter of perforations 4mm, centres 8.5mm) + mineral wool insulation (47.5mm thick, density 140kg/m³) manufactured by KCC Corporation + 0.4mm thick perforated steel sheet (diameter of perforations 4mm, centres 8.5mm) + 0.6mm thick galvanised steel sheet. Bonded with urethane adhesive type 'BNUR-100' manufactured by BN Chemical Co Ltd and urethane adhesive type 'OCUA-1000RC' manufactured by Dai Han Polymer Co. Ltd.
2. Each panel having cable conduits throughout 50mm wide x 20mm deep, at 100mm centres across entire width of each panel.
3. Total thickness of bulkhead: 50mm.
4. Maximum panel width: 550mm.
5. Panels joined with cap profiles of 0.6mm thick steel, 10mm wide. Panel insulated each side of joint for width 30mm with mineral wool insulation (47.5mm thick, density 240kg/m³) manufactured by KCC Corporation.
6. Panels retained within 5mm thick steel frames.
7. Not to be used for stairwell enclosures and main fire zone bulkheads on passenger ships.
8. Composition, application and installation of sub components, including any adhesives, seals and any fire retardants, to be maintained in production and use in accordance with originally tested composition formula and method of application and installation, and manufacturer's instructions.
9. Production items are to be manufactured in accordance with a quality control system which shall be maintained to ensure that items are of the same standard as the approved prototype.
10. The certificate holder is solely responsible for the products supplied under this Certificate and to ensure that their products, are fully compliant with the relevant statutory regulations as applicable and are designed, manufactured and installed to the same quality and specifications as the prototype tested, including components that are designed and manufactured by third parties.

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PLACE OF PRODUCTION

BIP Industries Co., Ltd.
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Hoehwa-myeon, Goseong-gun
Gyeongsangnam-do
Republic of Korea



Jessica Evans
Senior Specialist
Statutory Fire & Safety
Marine Technology and Engineering Services
Global Technology Centre
Lloyd's Register EMEA

Supplementary Type Approval Terms and Conditions

This certificate and Design Appraisal Document relates to type approval, it certifies that the prototype(s) of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein, it does not mean or imply approval for any other use, nor approval of any products designed or manufactured otherwise than in strict conformity with the said prototype(s).