

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 46273, Republic of Korea
Type	B-0 Bulkhead
Description	Fire Resisting B-0 Bulkhead Panel System – Type: “BIP W-161”
Trade Name	BIP W-161
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.

ATTACHMENT TO CERTIFICATE OF FIRE APPROVAL No. LR2275842SF

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.

This Certificate supersedes and is a replacement of previous Lloyd's Register Certificate of Fire Approval No: SAS F174002-02.

APPROVAL DOCUMENTATION

1. Fire Insurers Laboratories of Korea (FILK), 69-1 Simseok-Ri, Ganam-Myeon, Yeosu-Gun, Gyeonggi-Do, 469-881, Korea, Test Report No. AK2013-0461 dated 06 March 2014.

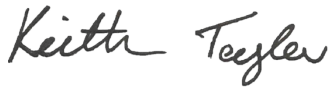
CONDITIONS OF CERTIFICATION

1. "BIP W-161" B-0 Class Bulkhead Panel shall comprise of a 15mm thick insulation core (200kg/m³ density) of mineral wool insulation manufactured by KCC Corporation, bonded to a 0.6mm thick galvanised steel sheet using one of the following adhesives: 'OCUA-1000RC', manufactured by Dae Han Polymer Industries Co., Ltd.; or 'BNUR-1000', manufactured by BN Chemical Co., Ltd.
2. Panel thickness: 15.6mm (30mm including omega joint profile).
3. Maximum panel width: 600mm.
4. Panels shall be secured at perimeter boundaries with 2mm thick, 40mm x 32mm x 40mm steel channels.
5. Adjacent panels shall be joined and connected each other with fitting screws and omega profiles with screws.
6. For use in escape routes in ro-ro passenger ships, B Class bulkhead panel system is to be subjected to strength tests where handrails are to be attached, in accordance with IMO MSC/Circ.910 under independent witness and test reports submitted to final design Project Approval Authority for approval on a case-by-case basis.
7. 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.
8. 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.
9. 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 and Lloyd's Register Class Rules as applicable and 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.
67 Baedungongdan-gil
Hoehwa-myeon, Goseong-gun
Gyeongnam 52915
Republic of Korea



Keith Taylor
Team Lead, Fire & Safety
Statutory Discipline Team
UK&I Technical Support Office, Marine & Offshore
Lloyd's Register

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).