



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 Ceiling
Description	Fire Resisting B-15 Class Continuous Ceiling Panel System
Trade Name	BIP C-162
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 Asia 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.

Kwang-Baek Kim

Fire & Safety - Senior Specialist to Lloyd's Register Asia
A member of the Lloyd's Register group

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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR2490968SF

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 Design Appraisal Document forms part of the Certificate.

This Certificate is a Renewal of Certificate Number LR2002944SF-01.

APPROVAL DOCUMENTATION

TEST REPORTS

Korea Marine Equipment Research Institute (KOMERI), 24-20 Noksansandan 335-ro, Gangseo-gu, Busan, Korea, Fire Test Report No. KOMERI-0402-19T3670(E)-A dated 10th February 2020.

CONDITIONS OF CERTIFICATION

1. B-15 Class interlocking panel system 'BIP C-162' consisting of: 0.6mm thick galvanised steel sheet formed into trays 30mm deep, filled with 2 layers of insulation each (15mm thick, 200kg/m³ density) mineral wool insulation manufactured by KCC Corporation Korea. Bonded with adhesive type 'BNUR-1000' manufactured by BN Steel Chemical Co Ltd. Total thickness of ceiling 30mm.
2. Adjacent panels connected together longitudinally with omega profiles of 1.0mm steel screwed over top of joints with pairs of M4 steel screws and M4 steel screws fixed to adjacent ceiling panel.
3. Panels suspended from deck by steel hanger set positioned along steel joint profile (T-carrier) with cover and retained at perimeter with screws to tops of bulkhead panels.
4. Maximum ceiling panel width: 600mm
5. Maximum ceiling panel length: 2420mm
6. Maximum distance between ceiling hangers: 1200mm
7. Minimum distance between top of ceiling and bottom of overhead deck: 270mm
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, whether manufactured by themselves or their licensee manufacturers, if agreed by Lloyd's Register, 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.



DESIGN APPRAISAL DOCUMENT

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Certificate No: LR2490968SF
Issue Date: 15/07/2024
Expiry Date: 14/07/2029
Reference: GTSO/F&S/TA/KBK/CHA2402060/PRJ11100444377

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR2490968SF

PLACE OF PRODUCTION

BIP Industries Co Ltd
67, Baedungongdan-gil
Hoehwa-myeon, Goseong-gun
Gyeongsangnam-do
Republic of Korea

Kwang-Baek Kim
Senior Specialist, Fire & Safety to Lloyd's Register Asia
Global Technical Support Office
Lloyd's Register Operations

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)

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