



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, South Korea
Type	B-0 Ceiling
Description	Fire Resisting 'B' Class Continuous Ceiling
Trade Name	"BIP C-643"
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 Marine and Offshore India LLP 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.

Chandrashekhar Aher

Team Lead - Fire and Safety to Lloyd's
Register Marine and Offshore India LLP
A member of the Lloyd's Register group

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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR26164215SFTC

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 is an Amendment of Certificate Number LR21347666SF

APPROVAL DOCUMENTATION

TEST REPORTS

Korea Marine Equipment Research Institute (KOMERI), 24-20, Noksansandan 335-ro, Gangseo-gu, Busan, Republic of Korea;
Test Report No. KOMERI-0402-22T1596(E) dated 15 June 2022.

MANUFACTURE DRAWING: F2022-C643-R1

CONDITIONS OF CERTIFICATION

1. Consisting of: 0.6mm thick, 300mm wide galvanized perforated (perforations 0.18mm diameter) or non-perforated steel sheet panels, insulated on non-exposed upper side with (25mm thick, 60 kg/m³ density) mineral wool insulation manufactured by KCC Corporation, Korea. Total thickness of ceiling 25mm.
2. Adjacent panels connected together longitudinally with overlapping joints and at ends with T carrier welded to deck above.
3. Panels connected to bulkheads by steel profile to bulkhead and top steel profile screwed on top and secured with screws, and to steel profiles suspended from deck with hanger sets.
4. Maximum ceiling panel size: 300 mm width.
5. Maximum distance between 'T' ceiling hangers: 1200 mm.
6. Minimum distance between top of ceiling and bottom of overhead steel deck: 300mm.
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, 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 .



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PLACE OF PRODUCTION

BIP Industries Co., Ltd.
67 Baedun-gong Dangil
Hoehwa-myeon, Goseong-gun
Gyeongsangnam-do
Korea

Chandrashekar Aher
Team Lead - Fire & Safety
Global Technical Support Office, Maritime Operations
Lloyd's Register Marine and Offshore India LLP

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)



This product has been verified to be fully in accordance with Transport Canada Procedure TP14612E "Procedures for approval of life-saving appliances and fire safety systems, equipment and products" and is suitable to be placed on Canadian Flagged vessels.