



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 Class Continuous Ceiling Panel System
Trade Name	"BIP C-645"
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 North America, Inc. 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.

1330 Enclave Parkway, Houston, Texas, 77077,
United States

Bruce McDonald

Technical Authority - Statutory to Lloyd's
Register North America, Inc.
A member of the Lloyd's Register group

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



DESIGN APPRAISAL DOCUMENT

Page	2 of 3
Certificate No:	LR22274567SF-02
Issue Date:	17/10/2022
Expiry Date:	27/03/2027
Reference:	UKITSO/FIRE/TA/BM/WP45488533/PRJ11100649622

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR22274567SF-02

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. LR22274567SF

APPROVAL DOCUMENTATION

TEST REPORTS

Fire Insurers Laboratories of Korea (FILK), 1030 Gyeongchung-daero, Ganam-eup, Yeosu-si, Gyeonggi-Do 12661, Korea; Test Report No. AK2014-0227R dated 29th May 2014.

CONDITIONS OF CERTIFICATION

1. Ceiling panel system consisting of: 0.6mm thick galvanized perforated or non-perforated steel sheet panels formed into trays, insulated on the upper side with one layer of mineral wool (40mm thick, 80 kg/m³ density) manufactured by KCC Corporation, Korea.
2. Total ceiling thickness: 45mm.
3. Maximum ceiling panel size: 300 mm width.
4. Minimum distance between top of ceiling and bottom of overhead steel deck: 300mm.
5. Adjacent panels connected together longitudinally with overlapping joints and at ends with T carrier welded to deck above.
6. Maximum distance between hanger set: 1200 mm.
7. Panels connected to bulkheads by steel profile to bulkhead and 1mm thick steel profile screwed on top and secured with self-tapping screws, and to steel profiles suspended from deck with hanger sets.
8. Composition, application and installation of sub components, including 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.

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PLACE OF PRODUCTION

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

Bruce McDonald
Technical Authority-Statutory
Lloyd's Register Americas

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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