



## 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.

<b>Manufacturer</b>	<b>BIP Industries Co., Ltd.</b>
<b>Address</b>	1817 Jungang-daero Geumjeong-gu, Busan, 46273, South Korea
<b>Type</b>	B-15 Ceiling
<b>Description</b>	Fire Resisting Continuous Ceiling
<b>Trade Name</b>	BIP C-513
<b>Specified Standard</b>	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 Polska sp. z o. o. 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.

Al Zwycięstwa 13a, Gdańsk, 80-219, Poland

**Marta Walk**

Fire & Safety - Senior Specialist to Lloyd's  
Register Marine Polska sp. z o. o.  
A member of the Lloyd's Register group

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**ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No.LR24137792SF**

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 a Renewal of Certificate Number: LR2001554SF-01

**APPROVAL DOCUMENTATION**

**TEST REPORTS**

Fire Insurers Laboratories of Korea (FILK), 69-1 Simseok-Ri, Ganam-Myeon, Yeosu-Gun, Gyeonggi-Do, 469-881, Korea; Test Report No. AK2014-0555 dated 5th November 2014. Manufacturer's Drawing No: F2014-C513-R0 sheets 1-9, dated 1<sup>st</sup> September 2014.

**CONDITIONS OF CERTIFICATION**

1. "BIP C-513" B-15 Class interlocking panel system consisting of: 0.6mm thick, galvanised steel sheet, non-perforated or with perforations 1.8mm diameter formed into trays 25mm deep, 275mm wide with 25mm connection overlap.
2. The panel system is insulated with mineral wool comprising a nominal thickness of 25mm+ 50 mm and nominal density of 60Kg/m<sup>3</sup>+80Kg/m<sup>3</sup> manufactured by KCC Corporation, Korea.
3. Maximum ceiling panel width: 300mm
4. Maximum ceiling panel length: 2240mm and may be extended in accordance with chapter 2.8.2.3 of Appendix 1 to Part 3 of 2010 FTP code, Annex 1. Panels connected by a P704 connection profile.
5. Minimum distance between top of ceiling and bottom of overhead deck: 300mm
6. Adjacent panels connected together longitudinally with overlapping joints screwed to main runners
7. Adjacent panels joined together along width by 1.0mm thick steel to main runners at maximum distance 1400mm, and maximum 300mm from perimeter.
8. Panels suspended from deck by steel hanger sets positioned along main runners at maximum distance of 1200mm, and maximum 300mm from edge. Ceiling retained at perimeter with top steel profile.
9. Composition, application, and installation of subcomponents, including adhesives, glass, 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.
10. 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.
11. 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.



**ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No.LR24137792SF**

12. Should a change of Place of Production from that stated below be required i.e. where the stages of manufacture/assembly/testing of this product take place, the new Place of Production is to be advised to us prior to the change taking place. This Certificate will require to be updated for Approval to be maintained.

**Note:**

The type "BIP C-513" B-15 Class ceiling panel system may also be used as a continuous B-15 ceiling as described in IMO Res. MSC.307(88) -(2010 FTP Code) Annex 1 Part 3 Appendix 4, when used in conjunction with B-15 Class bulkhead panel system.

**PLACE OF PRODUCTION**

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

M. Walk

**Marta Walk**

Senior Specialist, Fire & Safety  
Statutory Discipline Team, Marine & Offshore  
Lloyd's Register EME

**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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