

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive 2014/93/EU, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. This Certificate is issued by DNV GL AS under the authority of the Government of the Kingdom of Norway.

This is to certify:

That the "B" Class divisions, fire integrity

with type designation(s)

BIP C-511/ C-520: B-0 Class Continuous Ceiling

Issued to

BIP Industries Co., Ltd.

Yongsan-si Gyeongsangnam-do, Republic of Korea

is found to comply with the requirements in the following Regulations/Standards:

Annex A.1, item No. A.1/3.11b and Annex B, Module B in the Directive. SOLAS 74 as amended, Regulation II-2.3.4.4. and IMO 2010 FTP Code.

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2019-02-18**.

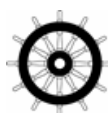
Issued at **Høvik** on **2016-02-19**

DNV GL local station:

Pusan

Approval Engineer:

Piotr Orzechowski



Notified Body
No.: **0575**

for **DNV GL AS**

Vidar Dolonen
Head of Notified Body

Product description

"BIP C-511/ C-520: B-0 Class Continuous Ceiling"

Composed of panels suspended below the structural deck, panel cassettes insulated with 25 mm thick mineral wool (manufactured by KCC Corporation, Korea) of density of 60 kg/m³, covered with 0.6 mm thick galvanized steel sheet or perforated galvanized steel (max 5% porosity of Ø1.8 mm) on exposed side.

The panels are connected to each other, screwed to main runner and fastened to the deck by hanger sets. The panels can be connected to each other by Omega shaped connection profile and attached to the deck by support channel.

In the longitudinal direction, the following measures applies:

- Max. distance between hangers: 1400 mm (BIP C-511) or 1200 mm (BIP C-520)
- Max. distance from bulkhead to the first hanger: 325 mm (BIP C-511) or 300 mm (BIP C-520)
- Max. distance from a connection profile to the nearest hanger: 325 mm (BIP C-511)

In the transverse direction, the following measures applies:

- Max. distance between hangers: 1200 mm (BIP C-511) or 1400 mm (BIP C-520)
- Max. distance from bulkhead to the first hanger: 312.5 mm (BIP C-511) or 100 mm (BIP C-520)

Total ceiling thickness is 25 mm.

For further details, see the drawings mentioned under Type Examination documentation.

Application/Limitation

Approved for use as a horizontal fire retarding division of class B-0.

Max panel size is 300 x 2290 mm (W x L).

The insulation material and any adhesives and surface materials used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

Each product is to be supplied with its manual for installation and use.

Type Examination documentation

Test Report No. A2012-1451 (BIP C-511) dated 28 May 2013, AK2015-0627 (BIP C-511) dated 16 November 2015 and 20002057 (BIP C-520) dated 28 August 2001 from "FILK" Fire Insurers Laboratories of Korea, Korea

Drawing No. F-2015-C511-R0 (8 sheets) dated 16 September 2015 from manufacturer.

Tests carried out

Tested according to IMO 2010 FTP Code part 3 and in compliance with IMO 2010 FTP Code Ch. 8.

Marking of product

The product is to be marked with name of manufacturer, type designation, fire technical rating, MED Mark of Conformity and USCG approval number if applicable.