



Marine &amp; Offshore

Certificate number: 18950/C0 BV

File number: ACI 1000/499/014

Product code: 5072H

*This certificate is not valid when presented without the full attached schedule composed of 7 sections*

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## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**SAINT-GOBAIN ISOVER G+H AG**

Ludwigshafen - GERMANY

*for the type of product*

**"A" CLASS DIVISIONS**

A-15 Class Deck, type U SeaProtect Slab 36

A-30 Class Deck, types U SeaProtect Slab 24, U SeaProtect Slab 80, U SeaProtect Slab 24 + U SeaProtect Slab 66

A-60 Class Deck, types U SeaProtect Slab 36, U SeaProtect Slab 36 + U SeaProtect Slab 66

### Requirements:

Bureau Veritas Rules for the Classification of Steel Ships Part C, Chapter 4

SOLAS 74 Convention as amended, Regulations II-2/9, II-2/3.2

IMO Res. MSC.61(67)-(FTP Code) with IMO Res MSC.307(88) (2010 FTP Code) article 8

IMO MSC/Circ.1120

*This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.*

**This certificate will expire on: 12 Jan 2023**

**For Bureau Veritas Marine & Offshore,**

At BV HAMBURG, on 12 Jan 2018,

Jens Bauermeister



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site [www.veristar.com](http://www.veristar.com). Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION :

#### 1.1 - A-15 Class Deck, type U SeaProtect Slab 36 - 60 mm

Composed of structural steel deck insulated underneath with glass wool U SeaProtect Slab 36, density 36 kg/m<sup>3</sup>.

Insulation thickness = 60 mm between stiffeners (no insulation on stiffeners).

Fastening welded pins :

- max spacing 300 mm on plate between stiffeners

#### 1.2 - A-30 Class Deck, type U SeaProtect Slab80 - 40/25 mm

Composed of structural steel deck insulated underneath with glass wool U SeaProtect Slab 80, density 80 kg/m<sup>3</sup>.

Insulation thickness = 40 mm between and 25 mm around stiffeners - U-shape - (cavities inside stiffeners also filled).

Fastening welded pins :

- max spacing 350 mm on plate between stiffeners
- max spacing 250 mm around stiffeners

#### 1.3 - A-30 Class Deck, type U SeaProtect Slab 24 - 50/50 mm

Composed of structural steel deck insulated underneath with glass wool U SeaProtect Slab 24, density 24 kg/m<sup>3</sup>.

Insulation thickness = 50 mm between and around stiffeners - U-shape - (cavities inside stiffeners also filled).

Fastening welded pins :

- max spacing 350 mm on plate between stiffeners
- max spacing 250 mm around stiffeners

#### 1.4 - A-30 Class Deck, type U SeaProtect Slab 24 + U SeaProtect Slab 66 - 50/30 mm

Composed of structural steel deck insulated underneath with glass wool :

- 50 mm U SeaProtect Slab 24, density 24 kg/m<sup>3</sup> in between stiffeners
- 30 mm U SeaProtect Slab 66, density 66 kg/m<sup>3</sup> wrapped around stiffeners (cavities inside stiffeners also filled).

Fastening welded pins :

- max spacing 350 mm on plate between stiffeners
- max spacing 250 mm around stiffeners

#### 1.5 - A-60 Class Deck, type U SeaProtect Slab 36 : 60/60 mm

Composed of structural steel deck insulated underneath with glass wool :

- 60 mm ULTIMATE U MPN 36, density 36 kg/m<sup>3</sup> in between stiffeners
- 60 mm ULTIMATE U MPN 36, density 36 kg/m<sup>3</sup> wrapped around stiffeners (cavities inside stiffeners also filled).

Fastening welded pins :

- max spacing 350 mm on plate between stiffeners
- max spacing 250 mm around stiffeners

#### 1.6 - A-60 Class Deck, type U SeaProtect Slab 36 + U SeaProtect Slab66 : 60/30 mm

Composed of structural steel deck insulated underneath with glass wool :

- 60 mm U SeaProtect Slab 36, density 36 kg/m<sup>3</sup> in between stiffeners
- 30 mm U SeaProtect Slab 66, density 66 kg/m<sup>3</sup> wrapped around stiffeners (cavities inside stiffeners also filled).

Fastening welded pins :

- max spacing 250 mm on plate between stiffeners
- max spacing 250 mm around stiffeners

### 2. DOCUMENTS AND DRAWINGS :

2.1 - A-15 Class Deck, type U SeaProtect Slab 36 - 60 mm: as per Manufacturer's drawing dated 08/02/2011

2.2 - A-30 Class Deck, type U SeaProtect Slab80 - 40/25 mm : as per Manufacturer's drawing dated 28/07/2004

2.3 - A-30 Class Deck, type U SeaProtect Slab 24 - 50/50 mm : as per Manufacturer's drawing dated 17/11/2004

2.4 - A-30 Class Deck, type U SeaProtect Slab 24 + U SeaProtect Slab 66 - 50/30 mm : as per Manufacturer's drawing dated 01/09/2005

2.5 - A-60 Class Deck, type U SeaProtect Slab 36 : 60/60 mm : as per Manufacturer's drawing dated 16/11/2004

2.6 - A-60 Class Deck, type U SeaProtect Slab 36 + U SeaProtect Slab66 : 60/30 mm : as per Manufacturer's drawing dated 14/09/2005

### **3. TEST REPORTS :**

3.1 - **A-15 Class Deck, type U SeaProtect Slab 36 - 60 mm** : test report N° PG 12339 dated 27.03.2011 as per IMO FTPC Part 3 from DIFT, Denmark

3.2 - **A-30 Class Deck, type U SeaProtect Slab80 - 40/25 mm** : test report N° PG 11376 dated 01.11.2004 as per IMO FTPC Part 3 from DIFT, Denmark

3.3 - **A-30 Class Deck, type U SeaProtect Slab 24 - 50/50 mm** : test report N° PG 11412 dated 17.01.2005 as per IMO FTPC Part 3 (test carried out with U SeaProtect Slab 24) and technical assessments N° PH 12697 dated 07.07.2005 and N° PH 12748 dated 04.04.2006, all issued by DIFT, Denmark.

3.4 - **A-30 Class Deck, type U SeaProtect Slab 24 + U SeaProtect Slab 66 - 50/30 mm** : test report N° PG 11518 dated 26.09.2005 issued by DIFT, Denmark (test carried out with U SeaProtect Slab 24 / U SeaProtect Slab 66 ) .

3.5 - **A-60 Class Deck, type U SeaProtect Slab 36 : 60/60 mm** : test report N° PG 11411 dated 01.02.2005 issued by DIFT, Denmark (test carried out with U SeaProtect Slab 36 / U SeaProtect Slab 36 ) .

3.6 - **A-60 Class Deck, type U SeaProtect Slab 36 + U SeaProtect Slab66 : 60/30 mm** : test reports N° PG 11519 dated 03.10.2005 (test carried out with U SeaProtect Slab 36 / U SeaProtect Slab 66 ), N° 11519b dated 07.11.2005 (test carried out with U SeaProtect Slab 36 / U SeaProtect Slab 66 ) and technical assessment N° PG 11519c dated 01.11.2005, all issued by DIFT, Denmark.

### **4. APPLICATION / LIMITATION :**

4.1- The following component(s) shall comply with the requirements of the relevant Bureau Veritas rules and be type approved :  
- the insulating materials "U SeaProtect Slab 24", "U SeaProtect Slab 36", "U SeaProtect Slab 66", "U SeaProtect Slab 80"  
- any added finish surface material(s).

4.2 - The fitting aboard to be the same as used for the test.

### **5. PRODUCTION SURVEY REQUIREMENTS :**

5.1 - The A-Class decks described in § 1 are to be supplied by **SAINT-GOBAIN ISOVER G+H AG** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **SAINT-GOBAIN ISOVER G+H AG** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

### **6. MARKING OF PRODUCT :**

The product or packing is to be marked with manufacturer name, type, designation and fire-technical rating.

### **7. OTHERS :**

7.1 - It is **SAINT-GOBAIN ISOVER G+H AG** responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This Certificate supersedes the Type Approval Certificate n° 18950/B0 BV issued on 12/102012 by the Society.

**\*\*\* END OF CERTIFICATE \*\*\***