



Marine & Offshore

Certificate number: 41893/B0 BV

File number: ACI 1000/499/027

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

Steel Deck A-15 U Sea Protect 36/70

Requirements:

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

SOLAS 74 Convention as amended, Regulations II-2/9, II-2/3.4

IMO Resolution MSC.307(88) - (2010 FTP Code)

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: 06 Oct 2025

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 06 Oct 2020,

Jens Bauermeister



This certificate is recognized by Transport Canada

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. 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 :

Steel Deck A-15 U Sea Protect 36/70

Composed of structural steel deck insulated on stiffened side with mineral wool;
- "U SeaProtect Slab 36" (former "ISOVER ULTIMATE Marine Slab U MPN 36")

OR

- "U SeaProtect Roll 36" (former "ISOVER ULTIMATE Marine Roll U MFN 36") (see §3.2.4),
both nominal density 36 kg/m³ and manufactured by SAINT-GOBAIN ISOVER G+H AG.

Insulation thickness - 70 mm between stiffeners. The stiffeners (of type standard, bulb flat or T bars - see §3.1) are not insulated.

Insulation can be increased in thickness up to a max. area weight of 5280 g/m² or density up to 76 kg/m³ (see §3.2.2).

The insulation is fixed to the steel plate with 3 mm diameter steel pins and 38 mm (or 30 mm - see §3.2.5) diameter washers. A minimum of 6 pins and washers (30 mm or 38 mm diameter - see §3.2.5) are used per slab.

Max distance between pins - 300 mm.

Max distance pins and joints: 50-250 mm en level, 100-200 mm on stiffeners
(see §3.2.1 and §3.2.3).

2. DOCUMENTS AND DRAWINGS :

As per Manufacturer's drawing N°AK2305 dated 19/06/14.

3. TEST REPORTS :

3.1 - Test report N° PGA10523 dated 30/09/2014 + supplement dated 29/10/2019 (alternative stiffeners design) as per IMO 2010 FTP Code Annex 1 Part 3 from Danish Institute of Fire and Security Technology (DBI), Denmark.

3.2 - Technical assessments:

3.2.1 - PHA10498d (position of joints) dated 27/03/2020

3.2.2 - PHA10498c (minimum thickness and density) dated 16/12/2019

3.2.3 - PHA10498g (pin pattern) dated 15/01/2020

3.2.4 - PHA10498a (slabs vs rolls) rev.2 dated 15/01/2020

3.2.5 - PHA10498f (washer diameter) dated 16/12/2019

from DBI, 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 36" and "U SeaProtect Roll 36",
- 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 **Steel Deck A-15 U Sea Protect 36/70** 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.

5.4 - For information, **Saint-Gobain Isover G+H AG** has declared to Bureau Veritas the following production site(s):

Saint-Gobain Isover G+H AG
Bürgermeister-Grünzweig-Strasse 1
67059 Ludwigshafen
GERMANY

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's** 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°41893/A0 BV issued on 26/08/2015 by the Society.

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