

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the "A" Class divisions, fire integrity

with type designation(s)

Class A-15 steel bulkhead, general application

Issued to

SAINT-GOBAIN ISOVER G+H AG

Ludwigshafen am Rhein, Rheinland-Pfalz, Germany

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

Regulation **(EU) 2018/773**,

item No. MED/3.11a. SOLAS 74 as amended, Regulation II-2/3.2 & II-2/9, IMO 2010 FTP Code, IMO MSC/Circ.1120 and IMO MSC.1/Circ.1434

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

This Certificate is valid until **2024-01-28**.

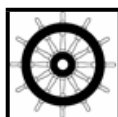
Issued at **Hamburg** on **2019-01-29**

DNV GL local station:

Augsburg

Approval Engineer:

Pavel Golyshev



Notified Body
No.: **0098**

for **DNV GL SE**

Sven Dudsus
Head of Notified Body

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment", signed February 27th, 2004.

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.



Product description

"Class A-15 steel bulkhead, general application" is a Class A-15 bulkhead consisting of standard 4.5 mm thick steel plate suitably stiffened.

The 30 mm thick Ultimate U SeaProtect Slab 46 is applied in one layer on the steel plate between the stiffeners which are kept uninsulated. All the insulation slabs are mounted tightly together along the joints and compressed between the stiffeners. The insulation layer is mounted without staggered joints.

The insulation is fixed to the steel core from the stiffened side with $\varnothing$ 3 mm steel pins (c/c approx. 300 mm, both vertically and horizontally) and $\varnothing$ 38 mm steel washers (no adhesive is used in this construction). The distance from the joints to the pins on the surface insulation is approx. 150 mm above as well as below the joint.

Insulation material: ISOVER U SeaProtect Slab 46 (nominal density: 46 kg/m³);
Manufacturer: Saint-Gobain Isover G+H AG.

ISOVER U SeaProtect Slab 46 may be applied in form of rolls instead of slabs acc. to assessment no. PHA10498a (Revision no.: 1).

Further alternative arrangements acc. to assessment no. PHA1112B. With this assessment the validity of the following technical assessments is prolonged and extended to cover test report no. PGA11200A:

- PHA10498d: distance from the pins to the joints (50 mm to 250 mm on level);
- PHA10498f: washers' diameter can be changed from 38 mm to 30 mm;
- PHA10498g: use of a different pin patterns than tested.

For further details see under Type Examination documentation below.

Application/Limitation

Approved for use as vertical fire retarding division of class A-15.

A-15 steel bulkhead approved for "general application".

The insulation materials and adhesives used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity. This requirement may also be applicable for surface materials used, if required by relevant rules and regulations.

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

Type Examination documentation

Test report no. PGA11200A dated 8th of March 2018 and assessments nos. PHA10498d dated 16th of December 2014, PHA10498f dated 15th of July 2014, PHA10498g dated 28th of November 2014, PHA11121B dated 8th of October 2018 and PHA10498a (Revision no.: 1) dated 2nd of November 2018, all issued by Danish Institute of Fire and Security Technology (DBI), Hvidovre, Denmark.

Drawing no. AK2402 1/1 dated 23rd of February 2018 (included in test report) from Saint-Gobain Isover G+H AG.

Tests carried out

Tested according to IMO Resolution MSC.307(88) - 2010 FTP Code Annex 1 Part 3.

Marking of product



Job Id: **344.1-008935-1**
Certificate No: **MEDB00004XN**

The product or packing is to be marked with name and address of manufacturer, type designation, fire-technical rating, the MED Mark of Conformity and USCG Approval Number if applicable (see first page).

USCG Approval Category (Module B) number

This product has been assigned a U.S. Coast Guard Module B number 164.107/EC0098 to note type approval to Module B only as it pertains to obtaining US Coast Guard approval as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed February 27th, 2004.