

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00004XN
Revision No:
3

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 & B Class divisions fire integrity: A class divisions.

with type designation(s)
Class A-15 steel bulkhead

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) 2023/1667,

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.1434,1435; IMO MSC.1/Circ.1616, 1621

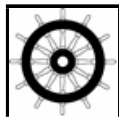
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2029-02-20**.

Issued at **Hamburg** on **2024-02-21**

DNV local unit:
Essen

Approval Engineer:
Helge Bjørnara



Notified Body
No.: **0098**



for **DNV GL SE**

Digitally Signed By:
Christine Mydlak-Röder
Location: **DNV Hamburg,**
Germany

Mydlak-Röder, Christine
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) 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

"Class A-15 steel bulkhead"

Steel bulkheads with different insulation constructions are listed in the enclosed Appendix.

Application/Limitation

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

General application: Fire on either side.

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 9 March 2018 from DBI, Hvidovre, Denmark.

- Supplement to test report No. PGA11200A dated 3 September 2019 from DBI, Hvidovre, Denmark.

Test report. No. PGA10476 dated 25 July 2014 from DBI, Hvidovre, Denmark.

- Supplement to test report No. PGA10476 dated 29 November 2019 from DBI, Hvidovre, Denmark.

Test report. No. PGA10288 dated 29 July 2013 from DBI, Hvidovre, Denmark.

Assessment No. PHA10498a Rev.3 dated 7 July 2023 from DBI, Hvidovre, Denmark.

Assessment No. PHA10498b dated 9 December 2019 from DBI, Hvidovre, Denmark.

Assessment No. PHA10498c dated 16 December 2019 from DBI, Hvidovre, Denmark.

Assessment No. PHA10498d dated 27 March 2020 from DBI, Hvidovre, Denmark.

Assessment No. PHA10498e Rev.3 dated 3 January 2022 from DBI, Hvidovre, Denmark.

Assessment No. PHA10498f dated 16 December 2019 from DBI, Hvidovre, Denmark.

Assessment No. PHA10498g dated 15 January 2020 from DBI, Hvidovre, Denmark.

Assessment No. PHA11121B dated 8 October 2018 from DBI, Hvidovre, Denmark.

Drawing No. AK2304 dated 11 December 2014 from manufacturer.

Drawing No. AK2308 dated 3 December 2014 from manufacturer.

Drawing No. AK2433 Rev.2 dated 23 October 2019 from manufacturer.

Drawing No. AK2435 Rev.2 dated 23 October 2019 from manufacturer.

Tests carried out

Tested according to IMO 2010 FTP Code part 3.

Marking of product

The product 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).

Appendix to MEDB00004XN Rev.3

	Product Description ^{1, 2, 3}	Type Approval Documentation
1	<p>“U SeaProtect 46/30”</p> <p>Composed of a structural steel bulkhead insulated with minimum 30 mm mineral wool U SeaProtect Slab/Roll 46 between the stiffeners which are kept uninsulated. All insulation pieces are mounted tightly together along the joints and compressed between the stiffeners. The insulation layer is mounted without staggered joints.</p> <p>The insulation is fastened with 3 mm steel pins and 30 mm or 38 mm steel washers. Distance between pins is maximum 300 mm.</p>	<p>Test report No. PGA11200A Supplement to PGA 11200A</p> <p>Assessment No. PHA10498a Assessment No. PHA10498c Assessment No. PHA10498d Assessment No. PHA10498f Assessment No. PHA10498g</p> <p>Drawing No. AK2308 Drawing No. AK2433</p>
2	<p>“U SeaProtect 66/30”</p> <p>Composed of a structural steel bulkhead insulated with minimum 30 mm mineral wool U SeaProtect Slab 66 between the stiffeners which are kept uninsulated.</p> <p>The insulation is fastened with 3 mm steel pins and 30 mm or 38 mm steel washers. Distance between pins is maximum 300 mm.</p>	<p>Test report No. PGA10476 Supplement to PGA10476</p> <p>Assessment No. PHA10498c Assessment No. PHA10498d Assessment No. PHA10498f Assessment No. PHA10498g</p> <p>Drawing No. AK2308 Drawing No. AK2435</p>
3	<p>“U SeaProtect 24/50 + 24/50”</p> <p>Composed of a structural steel bulkhead insulated with minimum 50 mm mineral wool U SeaProtect Slab/Roll 24 between the stiffeners.</p> <p>Minimum 50 mm mineral wool U SeaProtect Slab/Roll 24 is fitted around the stiffeners. Insulation is fitted inside the void of the stiffeners.</p> <p>The insulation is fastened with 3 mm steel pins and 30 mm or 38 mm steel washers. Distance between pins is maximum 300 mm.</p>	<p>Test report No. PGA10288</p> <p>Assessment No. PHA10498a Assessment No. PHA10498b Assessment No. PHA10498c Assessment No. PHA10498d Assessment No. PHA10498e Assessment No. PHA10498f Assessment No. PHA10498g</p> <p>Drawing No. AK2304</p>
4	<p>“U SeaProtect 24/50 + 56/30”</p> <p>Composed of a structural steel bulkhead insulated with minimum 50 mm mineral wool U SeaProtect Slab/Roll 24 between the stiffeners.</p> <p>Minimum 30 mm mineral wool U SeaProtect Slab/Roll 56 is fitted around the stiffeners. Insulation is fitted inside the void of the stiffeners.</p> <p>The insulation is fastened with 3 mm steel pins and 30 mm or 38 mm steel washers. Distance between pins is maximum 300 mm.</p>	<p>Test report No. PGA10288</p> <p>Assessment No. PHA10498a Assessment No. PHA10498b Assessment No. PHA10498c Assessment No. PHA10498d Assessment No. PHA10498e Assessment No. PHA10498f Assessment No. PHA10498g</p> <p>Drawing No. AK2304</p>
5	<p>“U SeaProtect 24/50 + 66/25”</p> <p>Composed of a structural steel bulkhead insulated with minimum 50 mm mineral wool U SeaProtect Slab/Roll 24 between the stiffeners.</p> <p>Minimum 25 mm mineral wool U SeaProtect Slab 66 is fitted around the stiffeners. Insulation is fitted inside the void of the stiffeners.</p> <p>The insulation is fastened with 3 mm steel pins and 30 mm or 38 mm steel washers. Distance between pins is maximum 300 mm.</p>	<p>Test report No. PGA10288</p> <p>Assessment No. PHA10498a Assessment No. PHA10498b Assessment No. PHA10498c Assessment No. PHA10498d Assessment No. PHA10498e Assessment No. PHA10498f Assessment No. PHA10498g</p> <p>Drawing No. AK2304</p>
6	<p>“U SeaProtect 24/50 + 76/20”</p> <p>Composed of a structural steel bulkhead insulated with minimum 50 mm mineral wool U SeaProtect Slab/Roll 24 between the stiffeners.</p> <p>Minimum 20 mm mineral wool U SeaProtect Slab 76 is fitted around the stiffeners. Insulation is fitted inside the void of the stiffeners.</p> <p>The insulation is fastened with 3 mm steel pins and 30 mm or 38 mm steel washers. Distance between pins is maximum 300 mm.</p>	<p>Test report No. PGA10288</p> <p>Assessment No. PHA10498a Assessment No. PHA10498b Assessment No. PHA10498c Assessment No. PHA10498d Assessment No. PHA10498e Assessment No. PHA10498f Assessment No. PHA10498g</p> <p>Drawing No. AK2304</p>
1	All mineral wool of type U SeaProtect are manufactured by Saint-Gobain ISOVER.	
2	Naming: U SeaProtect density/thickness, e.g. U SeaProtect 46/30 is a mineral wool with nominal density of 46 kg/m ³ and thickness of 30 mm.	
3	Insulation of same type U SeaProtect Slab or Roll with density up to 86 kg/m ³ or 56 kg/m ³ respectively may be used.	