

**EC-TYPE EXAMINATION
CERTIFICATE (MODULE B)**

Certificate No:
MEDB00004FE
Revision No:
1

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-30 steel bulkhead, general application

Issued to
Saint-Gobain Isover G+H AG
Ludwigshafen am Rhein, Rheinland-Pfalz, Germany

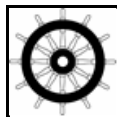
is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773**,
item No. MED/3.11a. SOLAS 74 as amended, Regulation II-2/3.2 & II-2/9, IMO 2010 FTP Code, IMO MSC/Circ.1120 and IMO MSC.1/Circ.1434

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

This Certificate is valid until **2023-11-11**.

Issued at **Hamburg** on **2018-11-29**

DNV GL local station:
Augsburg



for **DNV GL SE**

Approval Engineer:
Pavel Golyshov

Notified Body
No.: **0098**

Sven Dudzus
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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.



Job Id: **344.1-008532-2**
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Product description

"Class A-30 steel bulkhead, general application" is a Class A-30 bulkhead consisting standard 4.5 mm thick steel plate suitably stiffened.

The steel plate is insulated with one layer of 50 mm thick Ultimate U SeaProtect Slab 56. The distance from the joints to the pins on the surface insulation is approx. 150 mm above as well as below the joint. All the insulation slabs are mounted tightly together along the joints. The insulation layer is mounted without staggered joints.

The stiffeners are insulated with 20 mm thick Ultimate U SeaProtect Slab 76. 20 mm thick and 65 mm wide slabs are mounted along the sides of the stiffeners and they are kept in place by the slabs mounted on the steel plate between the stiffeners. The cavity inside the stiffeners is filled out with three layers of 20 mm thick Ultimate U SeaProtect Slab 76. The outer flange is insulated with 20 mm x 100 mm Ultimate U SeaProtect Slab 76.

Insulation materials:

ISOVER U SeaProtect Slab 56 (nominal density: 56 kg/m³);

ISOVER U SeaProtect Slab 76 (nominal density: 76 kg/m³);

Manufacturer: Saint-Gobain Isover G+H AG.

The insulation is fixed to the stiffened steel core 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 pins on the surface as well as on the stiffeners are mounted with a distance of approx. 150 mm from the insulation joints both above and below the joint.

ISOVER U SeaProtect Slab 56 may be applied in form of mats instead of slabs acc. to assessment no. PHA10498a (Revision no.: 1).

Further alternative arrangements acc. to assessment no. PHA11121A:

- Increase of insulation in thickness and density (up to 86 kg/m³);
- Distance from the pins to the joints (50 mm to 250 mm on level and stiffeners);
- Alternative mounting method of the insulation around the stiffeners acc. to drawings AK2304-2/4, 3/4 and 4/4;
- Use of washers in different dimensions: washers' diameter can be changed from 38 mm to 30 mm;
- Use of a different pin patterns than tested acc. to drawings AK2304- 1/4.

For further details see under Type Examination documentation below.

Application/Limitation

Approved for use as vertical fire retarding division of class A-30.


A-30 steel bulkead 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. PGA11131A (Revision no.: 1) dated 7th of November 2018 and assessments no. PHA11121A dated 8th of October 2018 and no. PHA10498a (Revision no.: 1) dated 2nd of November 2018, all issued by Danish Institute of Fire and Security Technology (DBI), Hvidovre, Denmark.



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Drawing no. AK2392- 1/1 dated 12th of January 2015 (included in test report) and nos. AK2304- 1/4, 2/4, 3/4 and 4/4 dated 11th of December 2014 (see in Appendix) all from 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

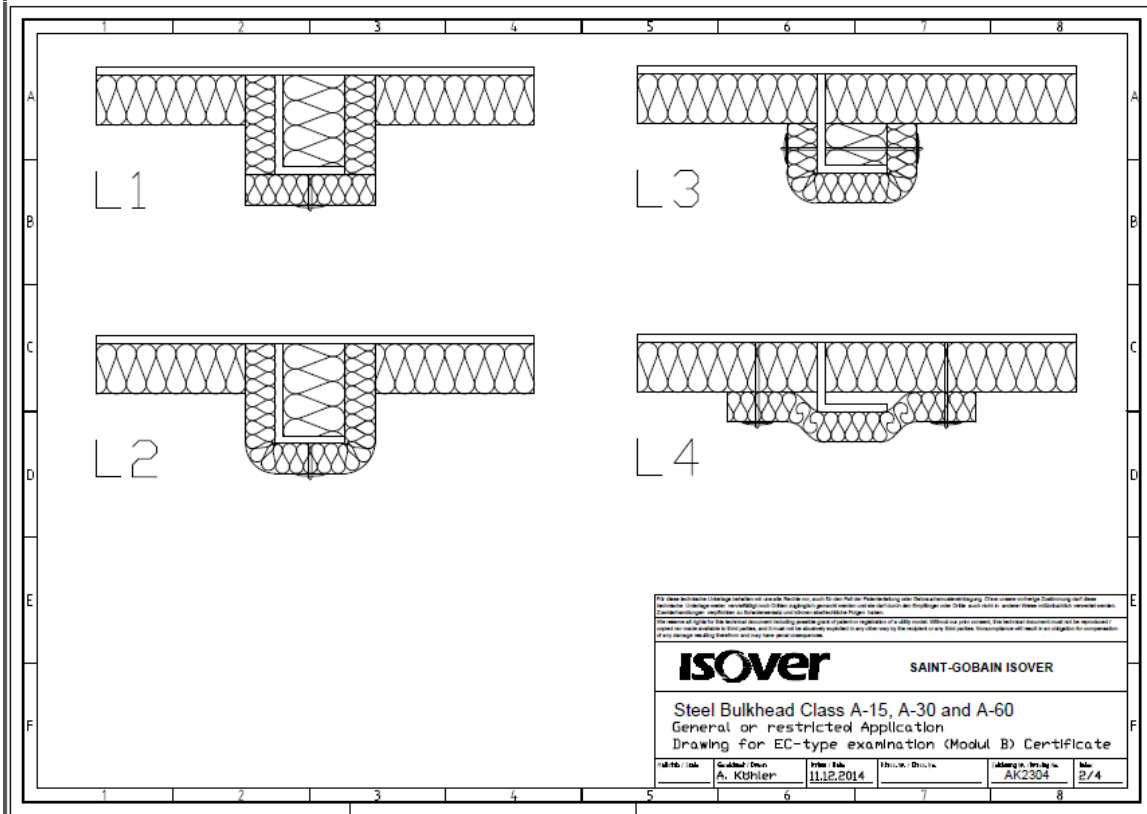
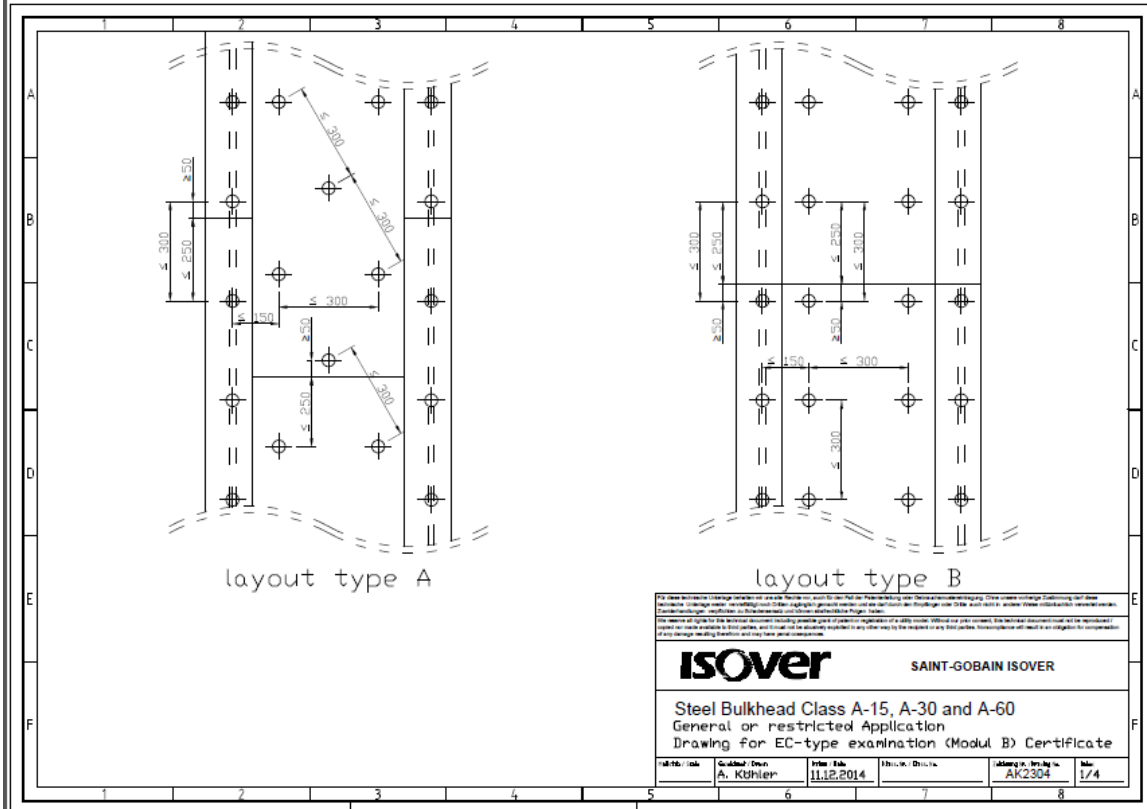
The product or packing is to be marked with name and address of manufacturer, type designation, fire-technical rating, the MED Mark of Conformity and USCG Approval Number if applicable (see first page).

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.

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Appendix to MEDB00004FE



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