



**TYPE APPROVAL CERTIFICATE**  
No. FPE351419XG/007

**This is to certify that the product identified below satisfies the requirements of the standard quoted under "Reference standard"**

<i>Description</i>	<b>Fire resisting bulkheads</b>
<i>Type</i>	<b>ISOVER Steel bulkhead A-30, restricted application</b>
<i>Applicant</i>	<b>SAINT-GOBAIN ISOVER G+H AG - SAINT - GOBAIN ISOVER G+H AG BURGERMEISTER-GRUNZWEIG-STRASSE 1 67059 Ludwigshafen GERMANY</b>
<i>Manufacturer</i>	<b>SAINT-GOBAIN ISOVER G+H AG - SAINT - GOBAIN ISOVER G+H AG</b>
<i>Reference standards</i>	<b>Chap. II-2 of SOLAS 74 Convention, as amended; IMO Res. MSC.307(88)-(2010 FTP Code)</b>
<i>Reference documents</i>	<b>Rules for Testing and Certification of Marine Materials and Equipment</b>

Issued in **Hamburg** on **December 5, 2019**. This Certificate is valid until **December 4, 2024**



RINA Services S.p.A.  
**Giuseppe Russo**

This certificate consists of this page and 1 enclosure



**TYPE APPROVAL CERTIFICATE**  
No. FPE351419XG/007  
Enclosure - Page 1 of 1  
**ISOVER Steel bulkhead A-30, restricted application**

**Product description**

**Construction: "U SeaProtect 46/40 + 46/30"**

Composed of a stiffened steel bulkhead insulated on stiffened side with min. 40 mm mineral wool of type U SeaProtect 46 (density 46 kg/m<sup>3</sup>) from SAINT-GOBAIN ISOVER G+H AG.

Min. 30 mm U SeaProtect is fitted around the stiffeners.

Insulation (U SeaProtect 46) is fitted inside the void of the stiffeners.

The insulation is fasten with 3 mm steel pins and 30 or 38 mm steel washers.

Distance between pins is maximum 300 mm.

See appendix for further details.

**Field of application**

Approved for use as vertical fire retarding division of Class A-30 for "restricted application".

The insulation thickness may be increased and Insulation density may be increased up to 86kg/m<sup>3</sup> as stated in PHA10498c dated 27 November 2019,

The insulation material 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.

**Reference documents**

Test report no. PGA11131A (Revision no.1) dated 7 November 2018 and assessments no. PHA11121A dated 8 October 2018 and no. PHA10498a (Revision no.1) dated 2 November 2018, all issued by Danish Institute of Fire and Security Technology (DBI), Hvidovre, Denmark.

Drawing no. AK2392- 1/1 dated 12 January 2015 and nos. AK2304- 1/4, 2/4, 3/4 and 4/4 dated 11 December 2014 all from SAINT-GOBAIN ISOVER G+H AG..

Documentation filed by RINA with n° HMFP/5829-5832.  
MEDB00004FE issued by DNV GL AS on 2018-11-29.

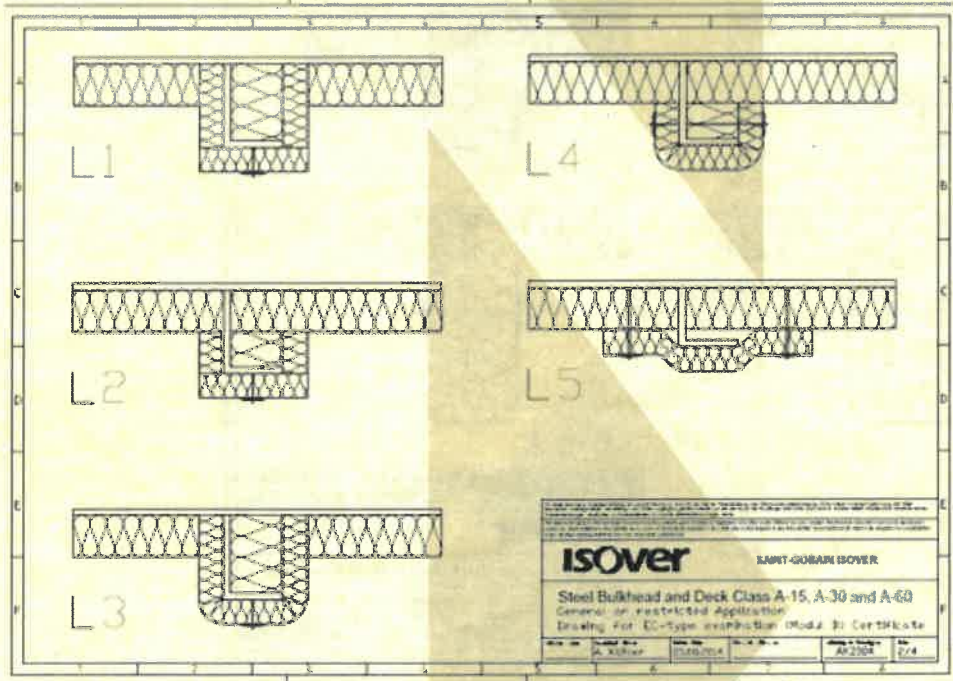
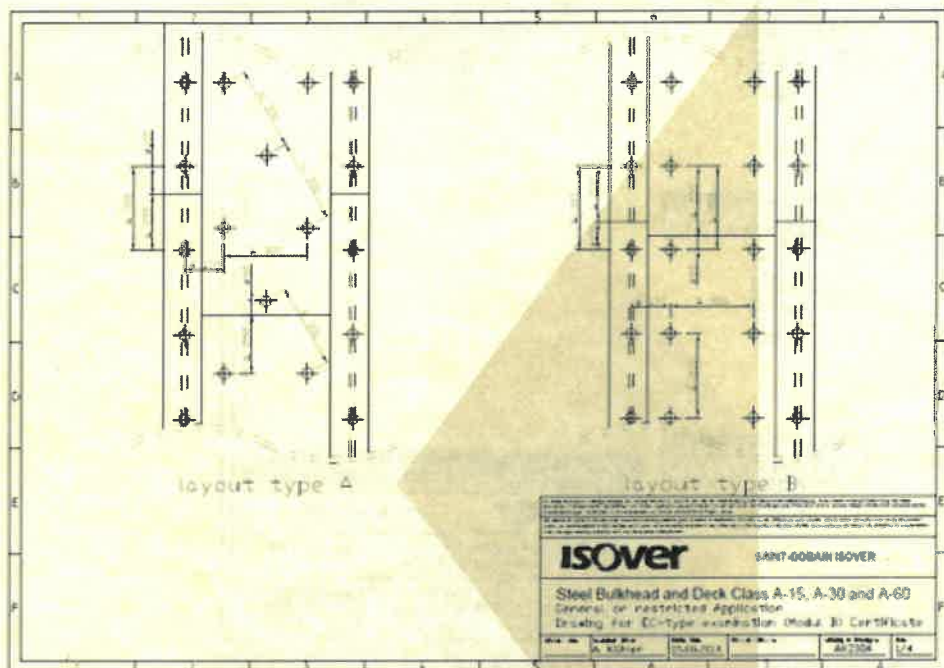
**Tests carried out**

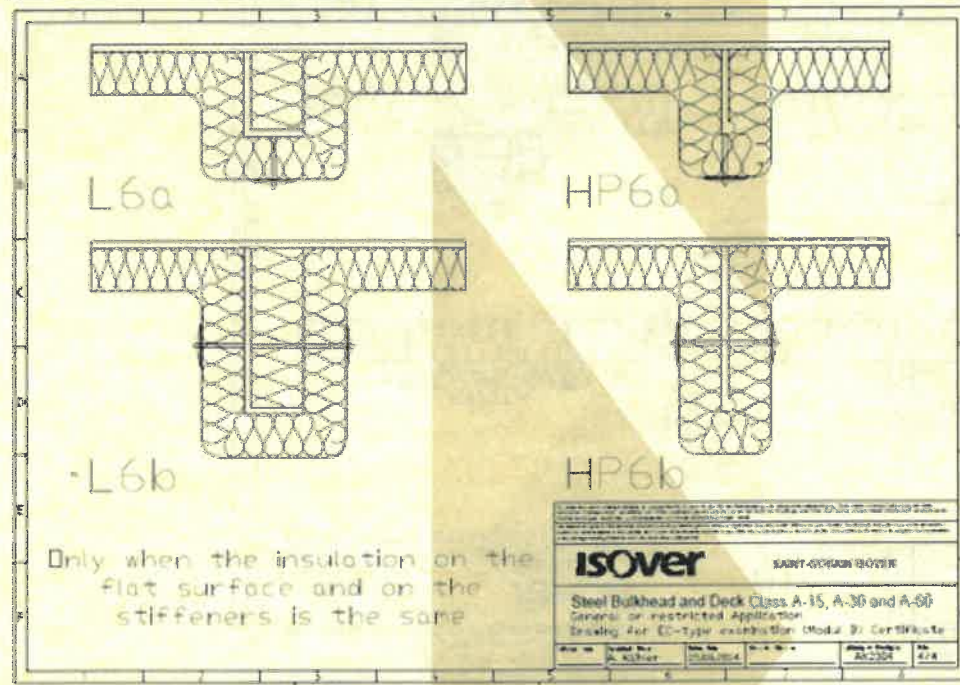
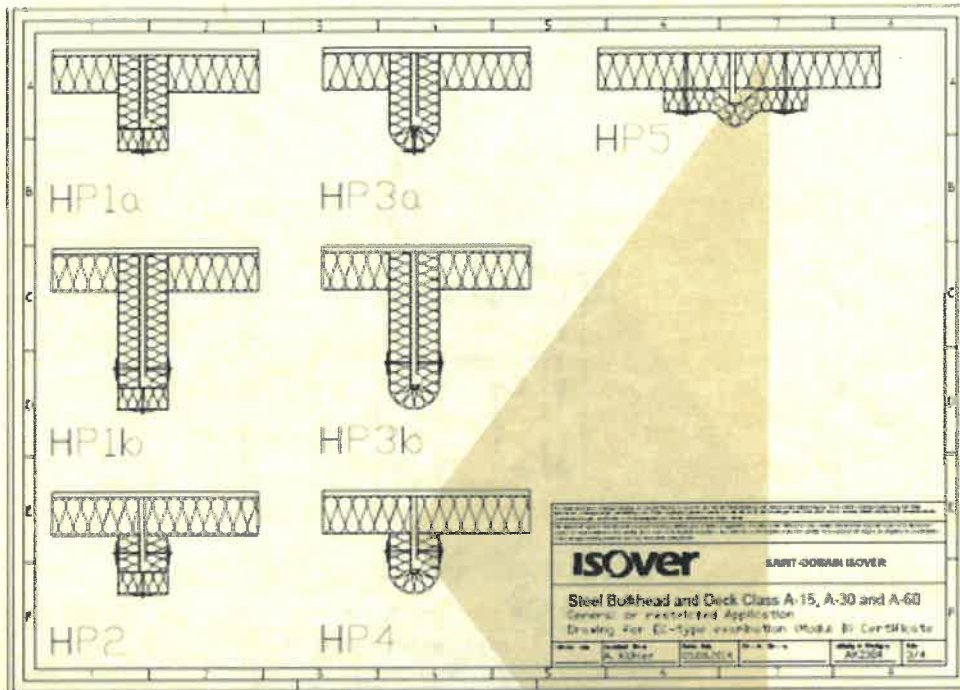
Tested according to IMO 2010 FTP Code part 3.





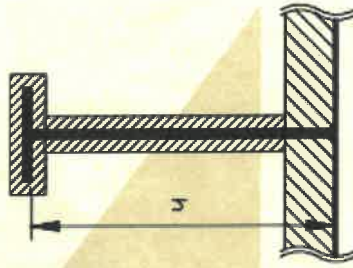
## Appendix



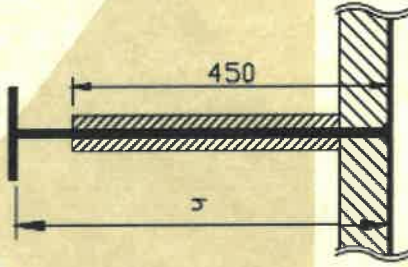




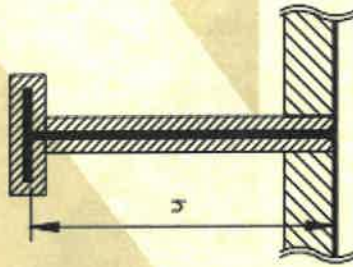
Solution for  $h < 450\text{mm}$



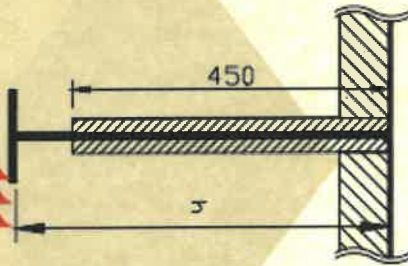
Solution for  $h \geq 450\text{mm}$





Solution for  $h < 450\text{mm}$



Solution for  $h \geq 450\text{mm}$



DBI  
PHAT  
SAINT-GOBAIN ISOVER

-  Product for insulation between the stiffeners (level)
-  Product for insulation around the stiffeners

<p><b>ISOVER</b> SAINT-GOBAIN ISOVER</p> <p>Insulation of T bars A-Class steel Deck &amp; Bulkhead</p>				
Product Name	Manufacturer	Issue Date	Issue No / Rev. No.	Revision / Drawing No.
V. Pottler	30.07.2019			AK2432
				1/1

Hamburg December 5, 2019



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