TYPE APPROVAL CERTIFICATE
No. **FPE351419XG/009**

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

Description	**Fire resisting bulkheads**
Type	**ISOVER Steel bulkhead A-15**
Applicant	**SAINT-GOBAIN ISOVER G+H AG - SAINT - GOBAIN ISOVER G+H AG BURGERMEISTER-GRUNZWEIG-STRASSE 1 67059 Ludwigshafen GERMANY**
Manufacturer	**SAINT-GOBAIN ISOVER G+H AG - SAINT - GOBAIN ISOVER G+H AG**
Reference standards	**Chap. II-2 of SOLAS 74 Convention, as amended; IMO Res. MSC.307(88)-(2010 FTP Code)**
Reference documents	**Rules for Testing and Certification of Marine Materials and Equipment**

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

RINA Services S.p.A.
Via Corsica, 12 - 16128 Genova
Tel +39 010 53851
Fax +39 010 5351000

TYPE APPROVAL CERTIFICATE
No. **FPE351419XG/009**
Enclosure - Page 1 of 1
ISOVER Steel bulkhead A-15

Product description

"Steel Bulkhead A-15"

Construction 1: "U SeaProtect 66/30"
Composed of a stiffened steel bulkhead insulated on stiffened side with min. 30 mm mineral wool of type U SeaProtect 66 (density 66 kg/m3) from SAINT-GOBAIN ISOVER G+H AG.
No insulation is fitted on 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.

Construction 2: "U SeaProtect 46/30"
Composed of a stiffened steel bulkhead insulated on stiffened side with min. 30 mm mineral wool of type U SeaProtect 46 (density 46 kg/m3) from SAINT-GOBAIN ISOVER G+H AG.
No insulation is fitted on 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-15 with "general application" that is means fire can come from either side of the construction (insulation can be fitted either on stiffened or non stiffened side of the division). The insulation thickness may be increased and Insulation density may be increased up to 86kg/m3 as stated in PHA10498c dated 27 November 2019, 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.

Reference documents

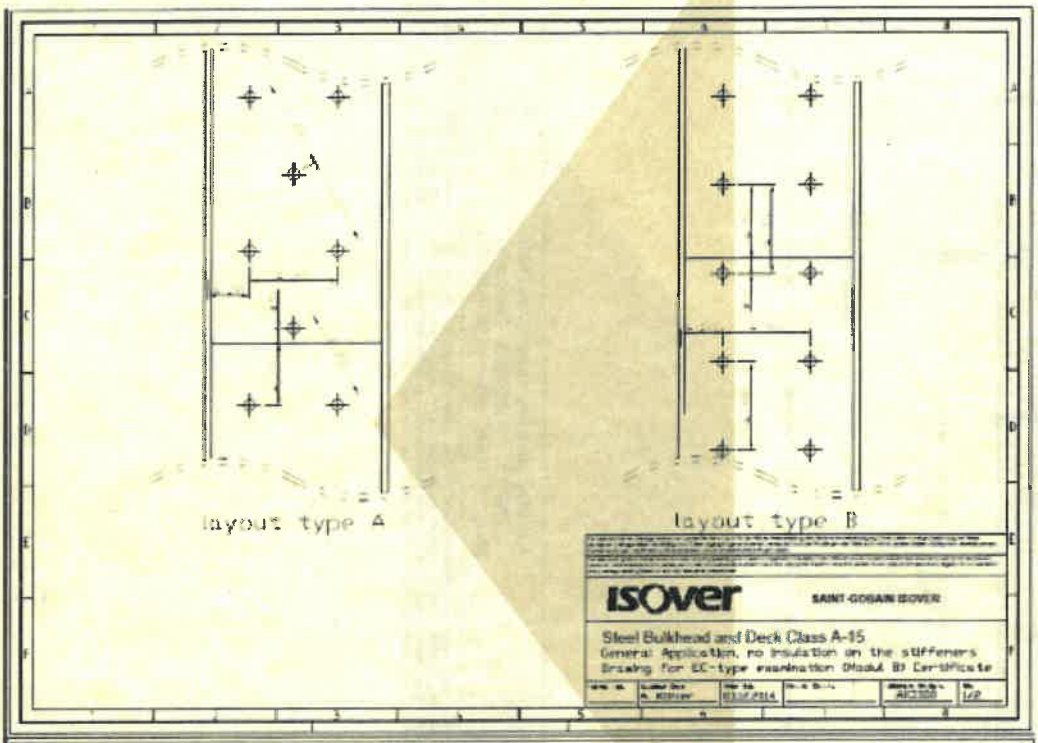
Test Report. No. PGA10476 dated 25 July 2014 from Danish Institute of Fire and Security Technology (DBI), Hvidovre, Denmark
PHA10498a, Revision no.: 1 (use of mats or rolls instead of slabs) dated 2 November 2018,
PHA10498c (minimum thickness and density) dated 27 November 2019,
PHA10498d (position of joints) dated 16 December 2014,
PHA10498g (pin pattern) dated 28 November 2014,
PGA10476 dated 28 March 2014,
PGA11200A dated 29 October 2019.
All from Danish Institute of Fire and Security Technology (DBI), Hvidovre, Denmark.
Drawing no. AK2308 (2 pages) dated 3 December 2014 from
SAINT-GOBAIN ISOVER G+H AG.
Documentation filed by RINA with n° HMFP/5829-5832.
MED-B-9398 issued by DNV GL AS on 2015-02-05.

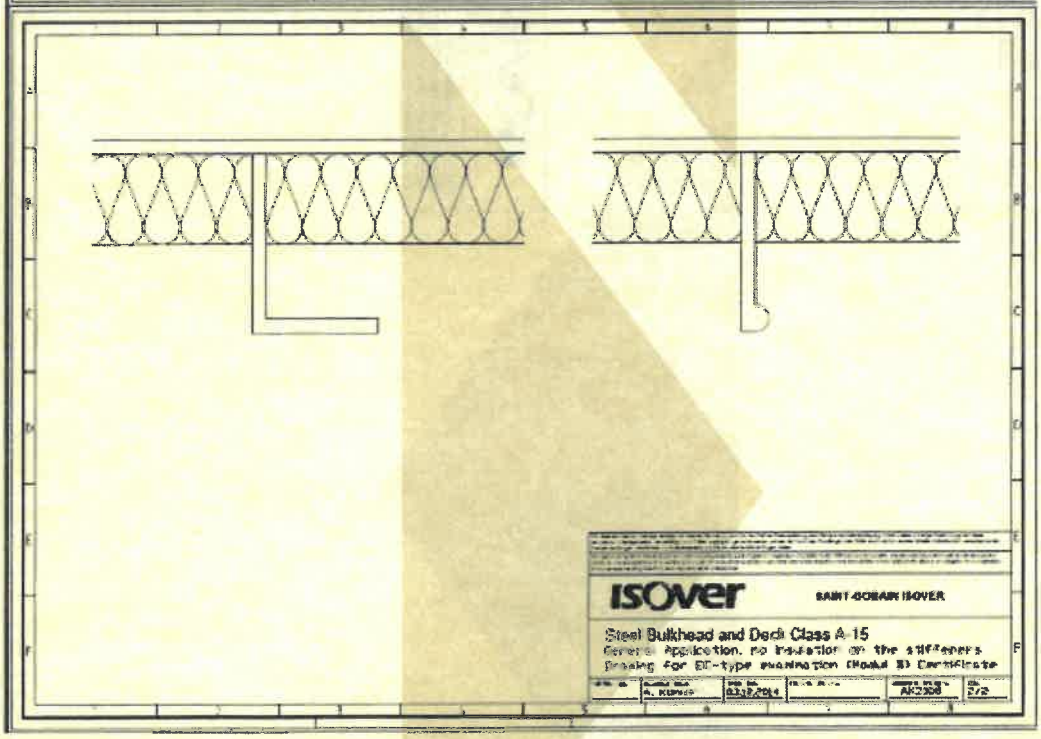
Tests carried out

Tested according to IMO 2010 FTP Code part 3.

RINA Services S.p.A.
Via Corsica, 12 - 16128 Genova
Tel +39 010 53851
Fax +39 010 5351000

Appendix





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Via Corsica, 12 - 16128 Genova
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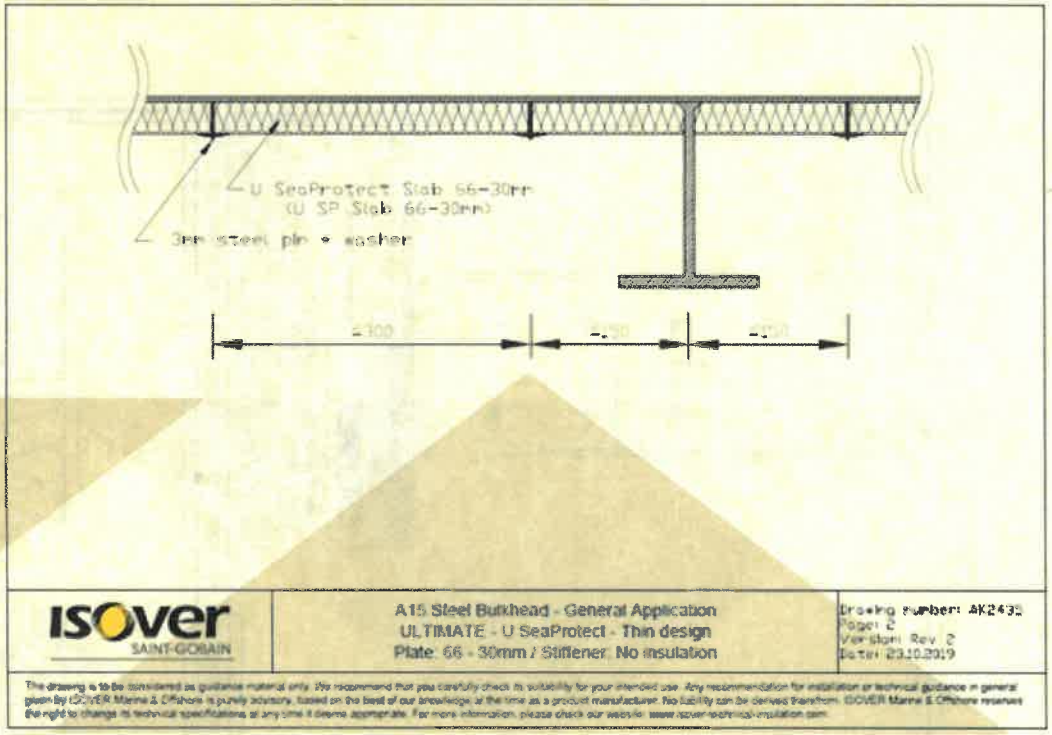
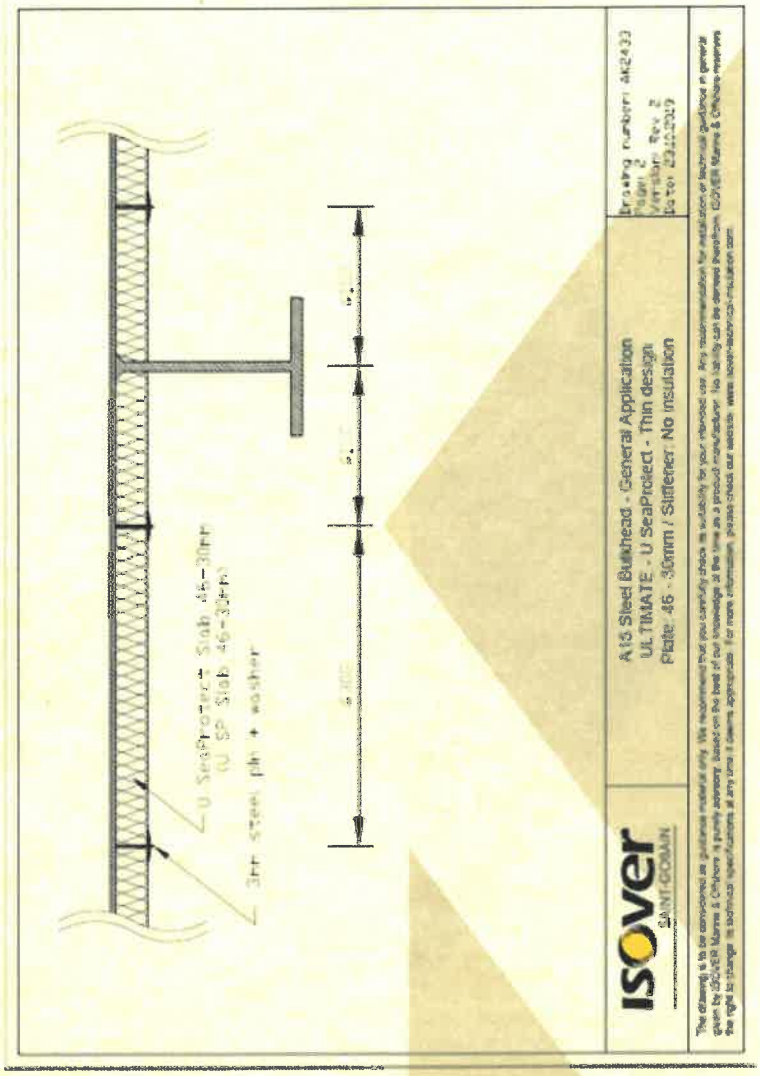
Fax +39 010 5351000



ISOVER SAINT-GOBAIN	A15 Steel Bulkhead - General Application ULTIMATE - U SeaProtect - Thin design Plate: 66 - 30mm / Stiffener: No insulation	Drawing number: AK2432 Page: 2 Version: Rev. 2 Date: 23.10.2019



Hamburg December 5, 2019

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Tel +39 010 53851
Fax +39 010 5351000