

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00002BW
Revision No:
1

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV 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)
A-60 Steel Corrugated Bulkhead – 2 mm – U SP 66 / 2 x 30

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) 2021/1158,
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, IMO MSC.1/Circ.1435.

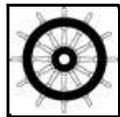
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2027-04-11**.

Issued at **Hamburg** on **2022-04-12**

DNV local station:
Essen

Approval Engineer:
Timo Linn



Notified Body
No.: **0098**



for **DNV SE**

Digitally Signed By: Mydlak-Röder, Christine

Location: DNV GL SE Hamburg, Germany

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

"A-60 Steel Corrugated Bulkhead – 2 mm – U SP 66 / 2 x 30"

The A-60 bulkhead consisted of a 2.0mm thick corrugated steel sheet (distance between flanks 35 mm) insulated with two layers of 30 mm thick ISOVER U SeaProtect 66 slabs mounted on top of the corrugated profile.

Total thickness of bulkhead 95mm.

The insulation was mounted at the unexposed side of the test specimen.

The insulation was fixed to the corrugated steel plate with one row of Ø 3 mm steel pins and Ø 38 mm steel washers. The pins were positioned with a distance of 300 mm vertically and 234 mm horizontally at the bottom of the corrugated profile.

For further details, including spacing of welded pins and pinning in connection with joints, see test report listed under Type Approval documentation below.

Insulation materials:

ISOVER U SeaProtect 66

Manufacturer: Saint-Gobain Isover G+H AG

Density: 66 kg/m³

Application/Limitation

Approved for use as a vertical fire retarding division of class A-60.

A-60 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 use.

Type Examination documentation

Test report No. PGA10839A dated 14 June 2016 from DBI (Danish Institute of Fire and Security Technology).

Tests carried out

Tested according to IMO Res. MSC.307(88) – 2010 FTP Code Annex 1, Part 3.

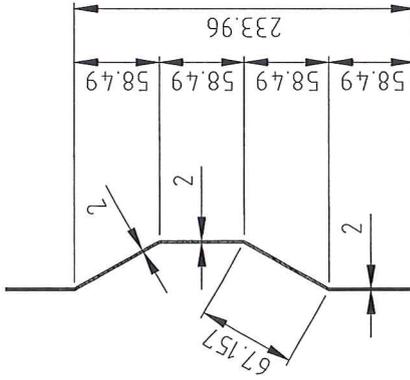
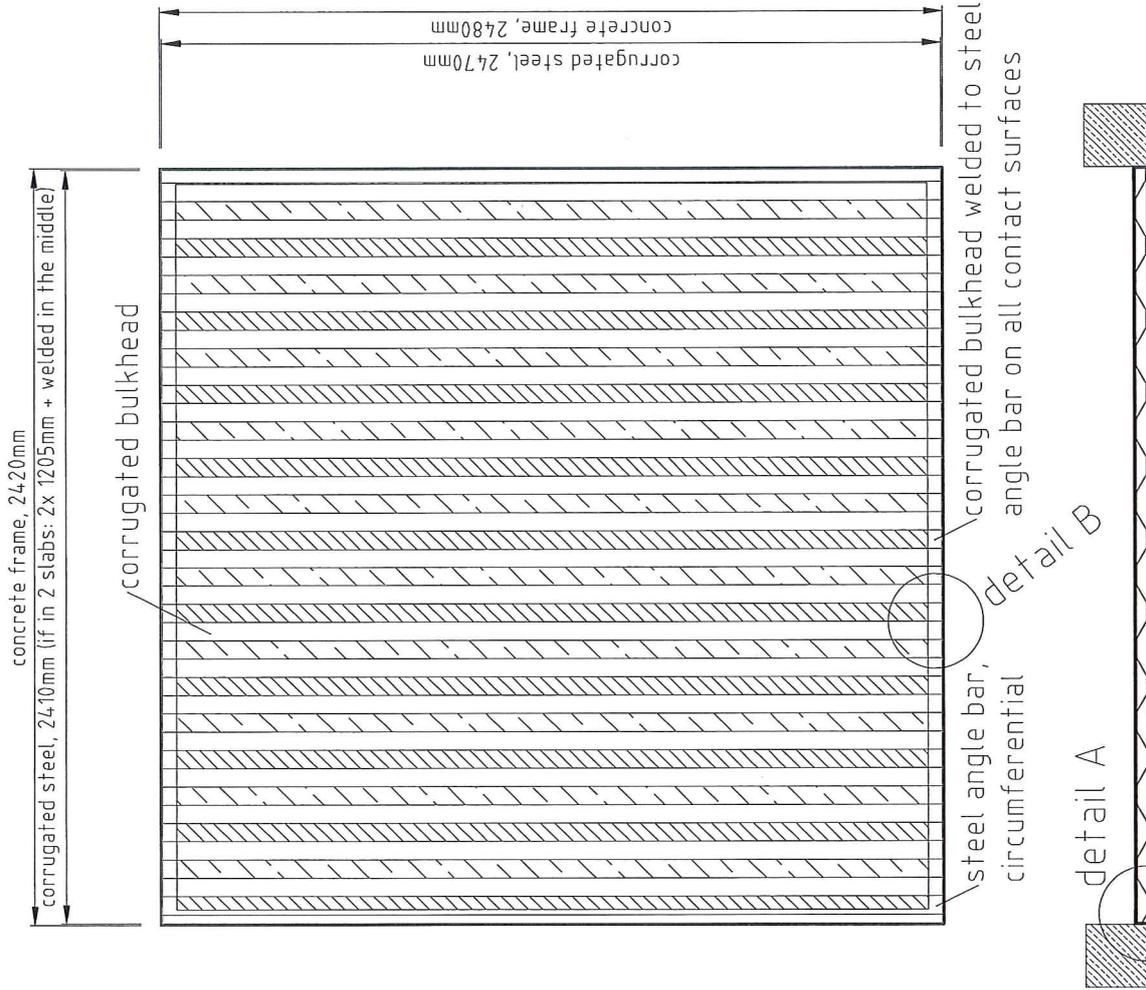
Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation, fire technical rating, 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 and amended by Decision No.1/2018 dated February 18th, 2019.

view from unexposed side




 Danish Institute of Fire and Security Technology
 File no. PGR10839A
Jens Billeby

description	specification	manufacturer
bulkhead	corrugated steel, 2mm	
angle bar	steel, 45x45x5mm	
Insulation	ULTIMATE U SeaProtect Slab 66, 30mm	Saint-Gobain Isover
clips	steel, ϕ 38mm	Hilbig
pins	steel, 3mm x 120mm	Hilbig

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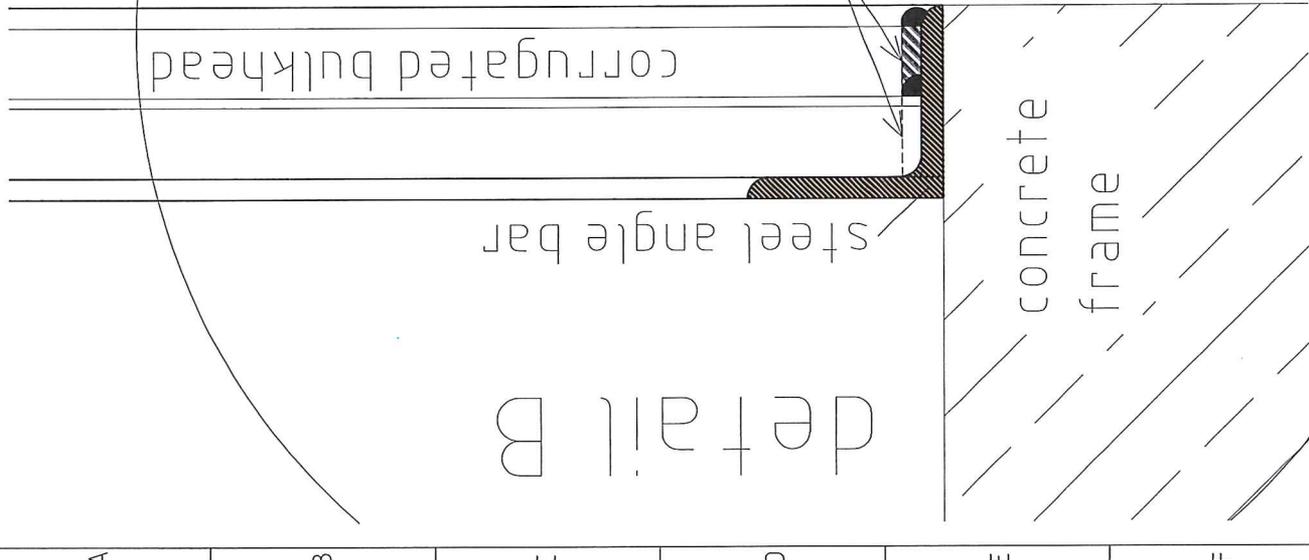


SAINT-GOBAIN ISOVER

Änderungen / Modifications		Datum / Date	
E			
D			
C			
B			
A			

Class A-60 steel bulkhead
general application
Isover UL TIMATE

Gezeichnet / Drawn	Klass. Nr. / Class. No.	Zeichnung Nr. / Drawing No.	Index
Vincent Pottier		AK2351	1/5
Maßstab / Scale	Datum / Date		
A3	31.03.2016		

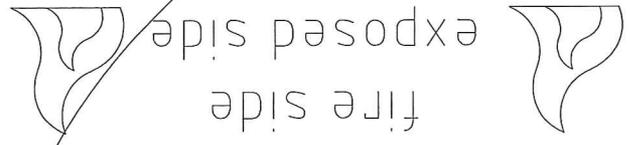


corrugated bulkhead welded to steel angle bar on all contact surfaces

corrugated bulkhead

steel angle bar

concrete frame



detail A

corrugated bulkhead

steel angle bar

concrete frame

corrugated bulkhead welded to steel angle bar on all contact surfaces



fire side
exposed side

British Institute of Fire and Security Technology
File no. **PGA10839A**

Anna Billemburg

description	specification	manufacturer
bulkhead	corrugated steel, 2mm	
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Insulation	ULTIMATE U SeaProtect Slab 66, 30mm	Saint-Gobain Isover
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ISOVER

SAINT-GOBAIN ISOVER

Class A-60 steel bulkhead
general application
Isover ULTIMATE

Anderungen / Modifications		Datum / Date	
E			
D			
C			
B			
A			

Gezeichnet / Drawn Vincent Pottier	Gepflicht/Checked	Datum / Date 31.03.2016	Klass. Nr. / Class. No.	Zeichnung Nr. / Drawing No. AK2361	Index 2/5
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Heftstab / Scale
A3

