

# 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.**

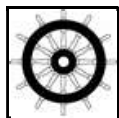
Further details of the equipment and conditions for certification are given overleaf.

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), 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.

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 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/m<sup>3</sup>

## 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

concrete frame, 2420mm

corrugated steel, 2410mm (if in 2 slabs: 2x 1205mm + welded in the middle)

corrugated bulkhead

corrugated steel, 2470mm  
concrete frame, 2480mm

corrugated bulkhead welded to steel  
angle bar on all contact surfaces

detail A

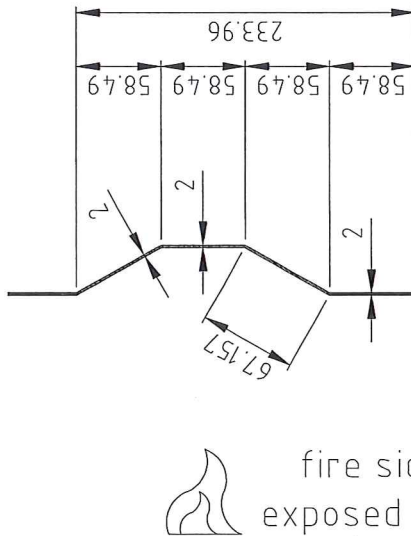
detail B

fire side  
exposed side

fire side  
exposed side

fire side  
exposed side

fire side  
exposed side



fire side  
exposed side

Danish Institute of Fire  
and Security Technology  
File no. PFA10839H

*Tommy Billerby*

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

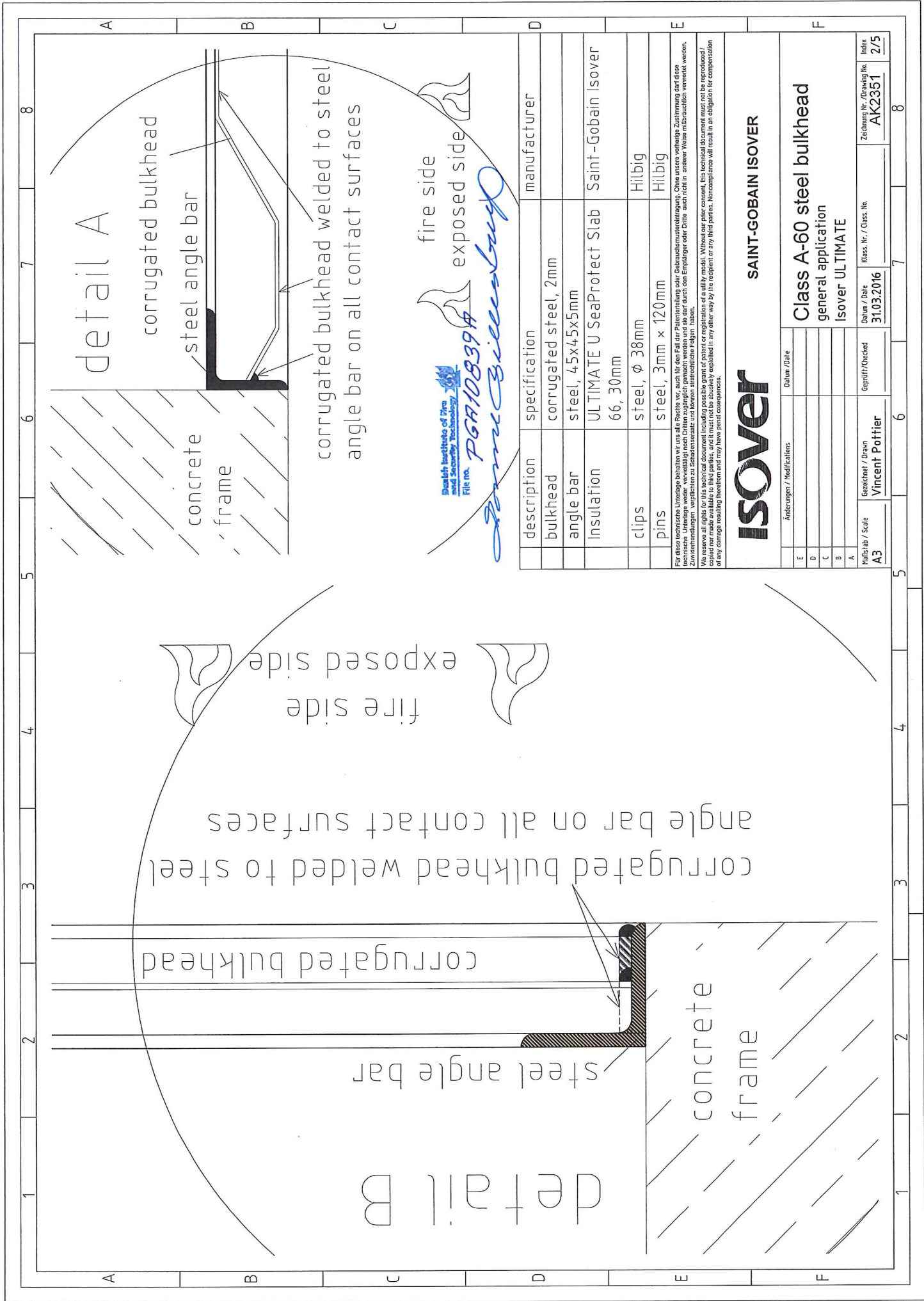
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**ISOVER**

SAINT-GOBAIN ISOVER

Class A-60 steel bulkhead  
general application  
Isover ULTIMATE

Änderungen / Modifications	Datum / Date
E	
D	
C	
B	
A	
Maßstab / Scale	Gezeichnet / Drawn
A3	Vincent Pottier
Datum / Date	Geprüft / Checked
31.03.2016	
Klass. Nr. / Class. No.	Zeichnung Nr. / Drawing No.
	AK2351
Index	1/5



detail A

detail B

British Institute of Fire and Security Technology  
File no. **PGA108394**

*Stm Bielefeld*

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

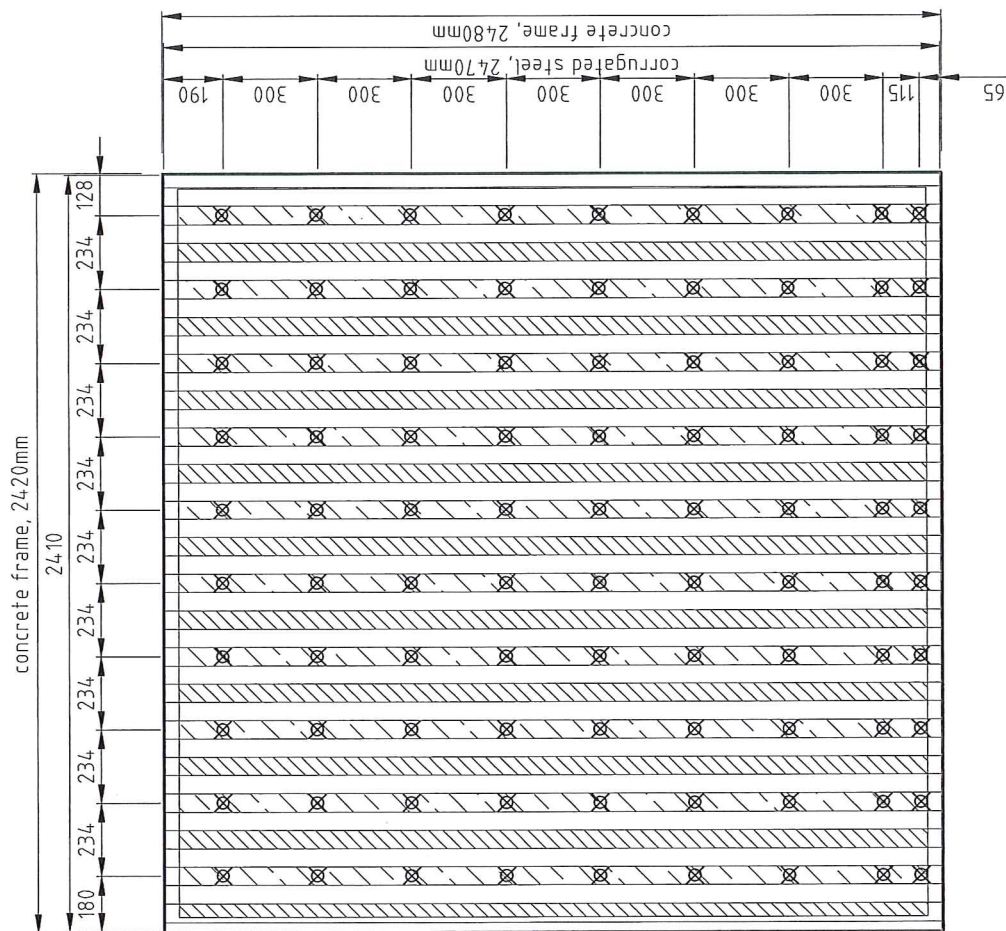
**ISOVER**

SAINT-GOBAIN ISOVER

Anderungen / Modifications	Datum / Date
E	
D	
C	
B	
A	
Heftstab / Scale	Geschnitten / Drawn
A3	Vincent Pottier
	Geprüft / Checked
	Datum / Date
	31.03.2016
	Klass. Nr. / Class. No.
	AK2351
	Zeichnung Nr. / Drawing No.
	2/5

Class A-60 steel bulkhead  
general application  
Isover ULTIMATE





fire side  
exposed side

Swedish Institute of Fire and Security Technology 2014  
File no. *PGA1003974*  
*Danne Billeb Lund*

D			
description	specification	manufacturer	
bulkhead	corrugated steel, 2mm		
angle bar	steel, 4,5x4,5x5mm		
Insulation	ULTIMATE U SeaProtect Slab	Saint-Gobain Isover	
	66, 30mm		
clips	steel, Ø 38mm	Hilbig	
pins	steel, 3mm x 120mm	Hilbig	

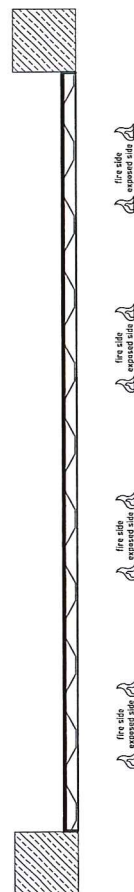
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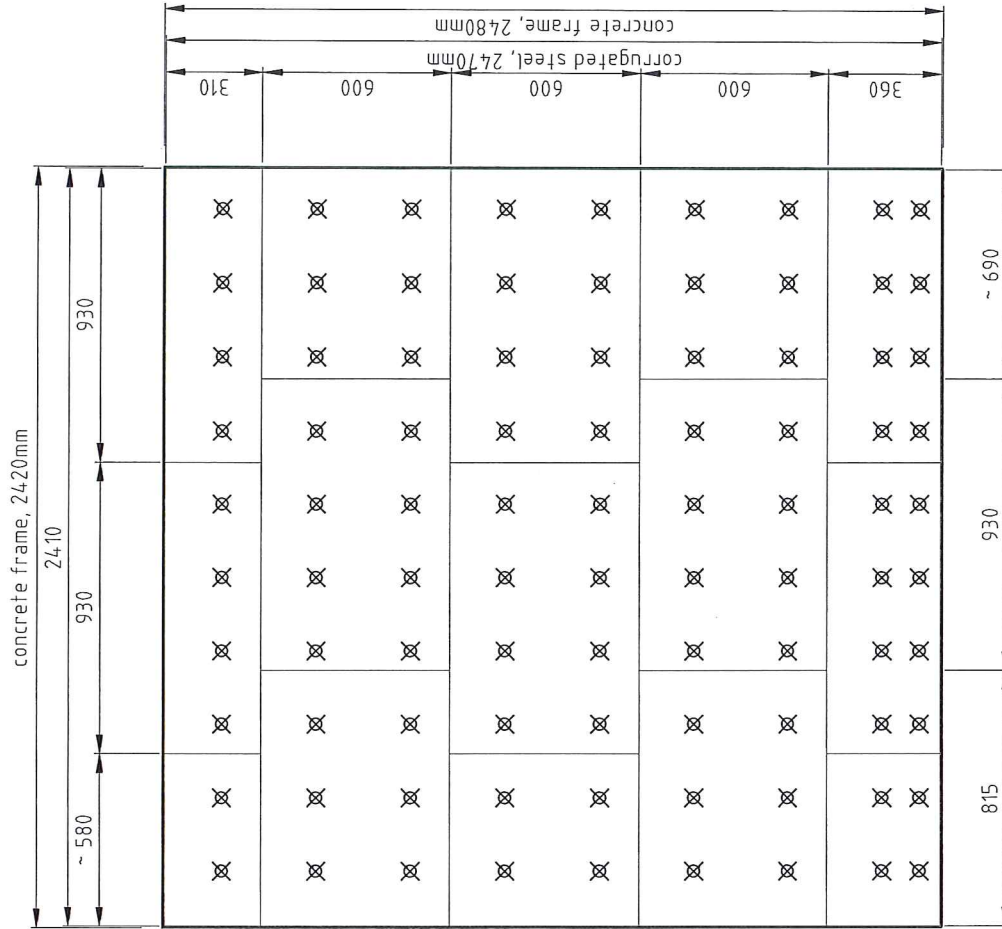
# Is over

SAINT-GOBAIN ISOVER

Änderungen / Modifications		Datum / Date	<h1>Class A-60 steel bulkhead</h1> <h2>general application</h2> <h3>Isover ULTIMATE</h3>		Zeichnung Nr. / Drawing No.	Index
E						3/5
D						
C						
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A						
Haltfab / Scale		Gegereit / Checked	Datum / Date	Klass. Nr. / Class. No.		
A3		Vincent Pottier	31.03.2016			



view from unexposed side



fire side exposed side



fire side  
exposed side

David's Institute of Fire  
and Safety Technology  
File no. DGA10839A  
Zama Gillevalup

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

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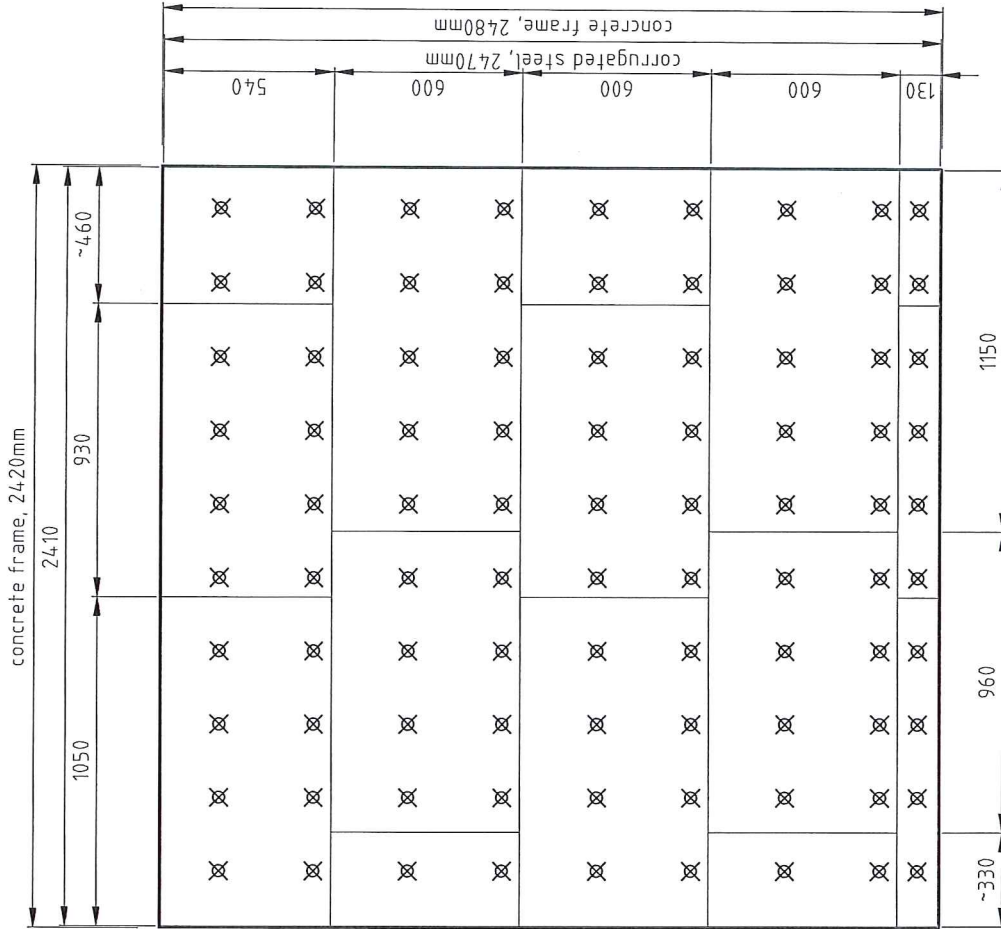
ISOVER

SAINT-GOBAIN ISOVER

Anderungen / Modifications	Datum / Date
E	
D	
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A	
Modell / Scale	
A3	
Gezeichnet / Drawn	Vincent Pottier
Geprüft / Checked	
Datum / Date	31.03.2016
Klasse. Nr. / Class. No.	
Zeichnung Nr. / Drawing No.	AK2351
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view from unexposed side



fire side  
exposed side

British Institute of Fire  
and Security Technology  
File no. **PGRI0839A**

*Remond-Verlender*

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

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**ISOVER**

SAINT-GOBAIN ISOVER

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E			
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A3		31.03.2016	
Hofstab / Scale		Klass. Nr. / Class. No.	
Vincent Pottier		AK2351	
		Zeichnung Nr. / Drawing No.	
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Class A-60 steel bulkhead  
general application  
Isover ULTIMATE

fire side exposed side

fire side exposed side

fire side exposed side

fire side exposed side