



European notified body
Identification number 0736

EC-Type Examination (Module B) Certificate

Certificate No. **100.217**

Name and address of the manufacturer: SAINT-GOBAIN ISOVER G+H AG
Bürgermeister-Grünzweig-Strasse 1
67059 Ludwigshafen (Germany)

Date of issue: **03.06.2014**

Annex A.1 Item No & Item designation: **A.1/3.34 – Fire resisting divisions for high speed craft**

Product designation: Horizontal division 30

Product Type: **Loadbearing fire-resisting deck 30**

Intended purpose: Fire resisting divisions for high speed craft complying with IMO Resolution MSC.36(63)-1994 HSC-Code) 7 and IMO Resolution MSC.97(73)-(2000 HSC-Code) 7

Testing based on (Specific standard): IMO Resolution MSC.307 (88)-(FTP-Code 2010)*
*) = not applicable accordance chapter 8.3 IMO Resolution MSC.307 (88)
IMO Resolution MSC.61(67)-(FTP-Code)

Remarks: see overleaf

The type tested was found to be in compliance with the Fire Protection requirements of Marine Equipment Directive (MED) 96/98/EC as amended by Directive 2012/32/EU subject to any conditions in the schedule (part of this certificate).

This certificate may only be used in connection with module(s) **D, E or F** of this directive.

Expiry date: **02.06.2019**



Signature (Niehus)

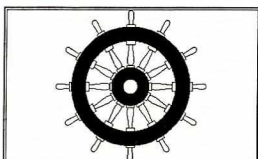


Installed equipment stays approved beyond the validity date until it is revoked!

Note 1: This certificate will not be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with the notified body named on this certificate.

Note 2: Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply.

Note 3: 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-control phase module (D, E or F) of ANNEX B of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.



xxxx/yy

Note 4: "Wheelmark" Format

YY Last two digits of year mark affixed.

XXXX Notified Body number undertaking surveillance module

Technical data / approved drawings and additional conditions and remarks:

1.

This EC-Type Examination Certificate is based on the following documents:

- Test Report P604995 of the "SP Technical Research Institute of Sweden", 501 15 Borås (SWE) dated 12.04.2007.
- Assessment of a loadbearing fire-resistant deck P705681 (Mr. Lars Boström) dated 18.09.2008.
- Letter of the company SAINT-GOBAIN ISOVERG+H AG (Dr. Perner) dated 15.05.2009.

2.

This EC-Type Examination Certificate provides that the assembly of the loadbearing horizontal division coincides in all items with the construction as described in number 2.2 and the annexes to the Test Report P604995 and the Assessment of a loadbearing fire-resistant deck P705681 incl. annex..

3.

All measurements of the loadbearing horizontal division must be in accordance with the drawing no. AK2171 (annex no. 1 - 4 to the Test Report P604995) and drawing no. AK2178 (annex to Assessment of a loadbearing fire-resistant deck P705681). They may only be changed in compliance with the Prüf- und Zertifizierungsstelle of Dienststelle Schiffssicherheit.

4.

The horizontal division was tested as follows:

Insulation	= exposed side
FRP Sandwich panel	= unexposed side

5.

As fire restricting material has to be used:

- "FRP Sandwich panel with different insulation materials", EC-Type Examination Certificate No. 223.002, issued by Dienststelle Schiffssicherheit.

6.

The following non-combustible material has to be used alternatively for the isolation of the FRP Sandwich Panel (structure of isolation see assessment of a loadbearing fire-resistant deck P705681):

- ISOVER-marine slab ULTIMATE U MPN 66 + U MPN 85
EC-Type Examination Certificate no. 114.477, issued by Dienststelle Schiffssicherheit.
- ISOVER-marine slab ULTIMATE U MPG 66-220
EC-Type Examination Certificate no. 114.480, issued by Dienststelle Schiffssicherheit.
- ISOVER-marine slab ULTIMATE U MPA 66
EC-Type Examination Certificate no. 114.483, issued by Dienststelle Schiffssicherheit.
- ULTIMATE U Marine Wired Mat 66 Alu1
EC-Type Examination Certificate no. 114.540, issued by Dienststelle Schiffssicherheit.
- U Marine Wired Mat 66 V1
EC Type Examination Certificate No. MED265213CS/001, issued by RINA.
- U Marine Wired Mat 66 N
EC Type Examination Certificate No. MED068414CS, issued by RINA.

7.

For insulating the "FRP Sandwich Panel" may also be used the identical insulating materials of the series "ULTIMATE U SeaProtect"(manufacturer: SAINT-GOBAIN ISOVER G+H AG).

Technical data / approved drawings and additional conditions and remarks:

8.

Fire restricting material as per Test Report P604995 may be replaced by a different one or non combustible material, provided that its composition and physical properties (e.g. heat conductivity, density and thickness of the material) correspond with the tested material and an approval as per Directive 96/98, as amended, has been obtained.

This has to be proved to Dienststelle Schiffssicherheit beforehand in written form.

9.

Surface materials which will be used must be not readily ignitable and approved by an European notified body.

10.

Adhesives which will be used must be not readily ignitable.

11.

The equipment shall be marked in accordance with article 11 of the Council Directive 96/98 EC of 20 December 1996 on Marine Equipment as amended.

12.

This EC-Type Examination Certificate replaces the old EC-Type Examination Certificate, issued on 18.06.2009 with a running time up to 30.06.2014.

13.

This EC-Type Examination Certificate may only be published or transmitted unabridged.



European notified body
Identification number 0736



DGUV Test

Prüf- und Zertifizierungsstelle
BG Verkehr
Dienststelle Schiffssicherheit

1. Supplement to EC-Type Examination Certificate

Certificate-No. 100.217

dated 03.06.2014

Product designation: Horizontal division 30

Item designation: **A.1/3.34 - Fire resisting divisions for high speed craft**

Type: **Loadbearing fire-resisting deck 30**

Manufacturer: SAINT-GOBAIN ISOVER G+H AG
Bürgermeister-Grünzweig-Strasse 1
67059 Ludwigshafen (Germany)

Reference: Assessment for the change of insulation issued by "SP Technical Research Institute of Sweden" (Mr. P. Johansson) with the reference P903422D dated 01.12.2014.

Alteration / Addition: For the non-combustible material ISOVER-marine slab ULTIMATE U MPN 85 / ISOVER-marine slab ULTIMATE U SeaProtect slab 85 the following insulation shall be used:

- ISOVER-marine slab ULTIMATE U SeaProtect slab 86
EC-Type Examination Certificate No. 114.477, issued by Ship Safety Division

The approved type with the above certificate number may be further manufactured and sold with the alterations / additions stated above.

The other regulations of the EC-Type Examination Certificate are not affected by this supplement.

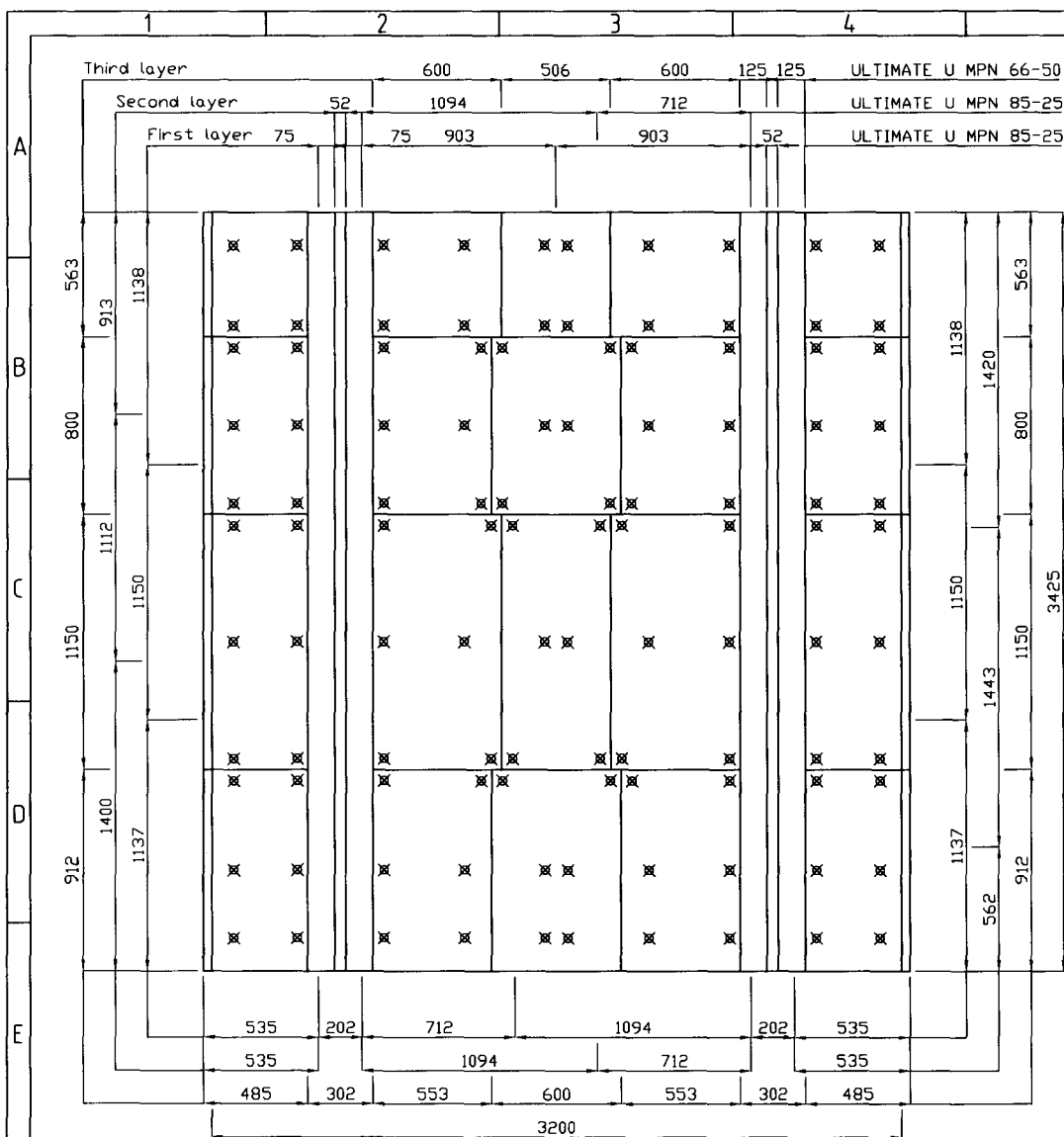
This Supplement to EC-Type Examination Certificate will be expired on: **02.06.2019**

Hamburg, 13.01.2015

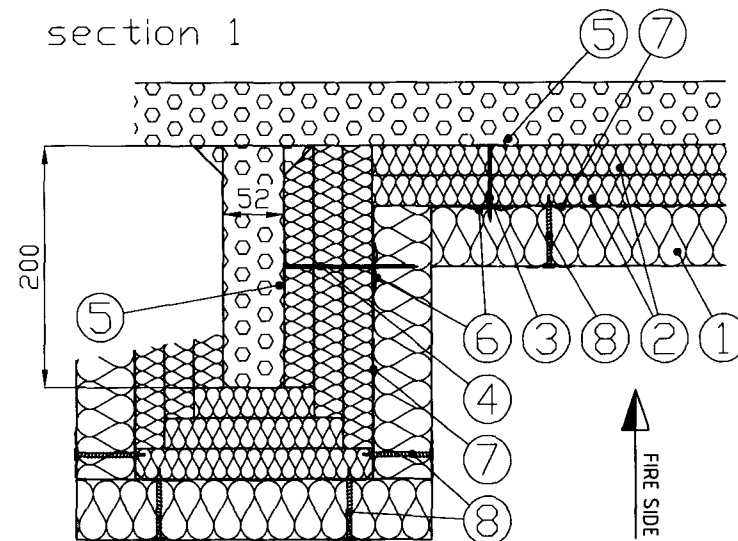


Signature (Bork)





section 1



	Description	Specification	Manufacturer
1	Insulation	Ultimate U MPN 66-50	Saint-Gobain Isover
2	Insulation	Ultimate U MPN 85-25	Saint-Gobain Isover
3	Pin with perfor. Plate	$\phi=2.7\text{mm}$ / $L=64\text{mm}$	LM DAHL
4	Pin with perfor. Plate	$\phi=2.7\text{mm}$ / $L=114\text{mm}$	LM DAHL
5	Screws for Plate Pins	Steel $L=13\text{mm}$ $\phi=3.5\text{mm}$	
6	Washers	Steel $\phi=38\text{mm}$	LM DAHL
7	Steel Strip	40% perfor. $68 \times 0.5\text{mm}$	LM DAHL
8	Screw IR2-4.8	Steel 60mm	SFS Intec

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ISOVER

SAINT-GOBAIN ISOVER

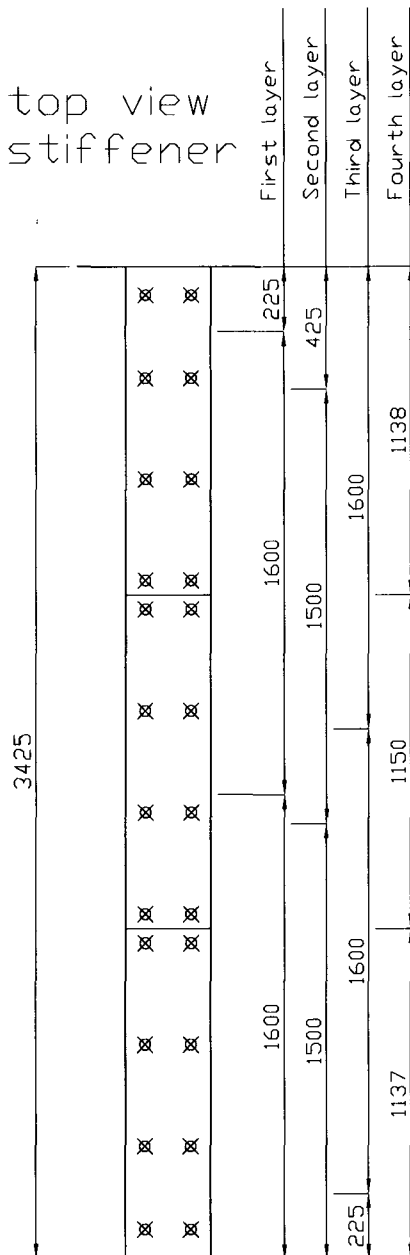
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E					
D					
C					
B					
A					
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	A. Köhler		25.01.2007		AK2171
					Index
					1/4

APP. 1
SP REF: PL09995
SIGN: 24

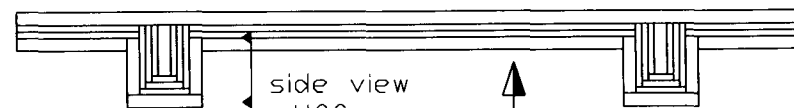
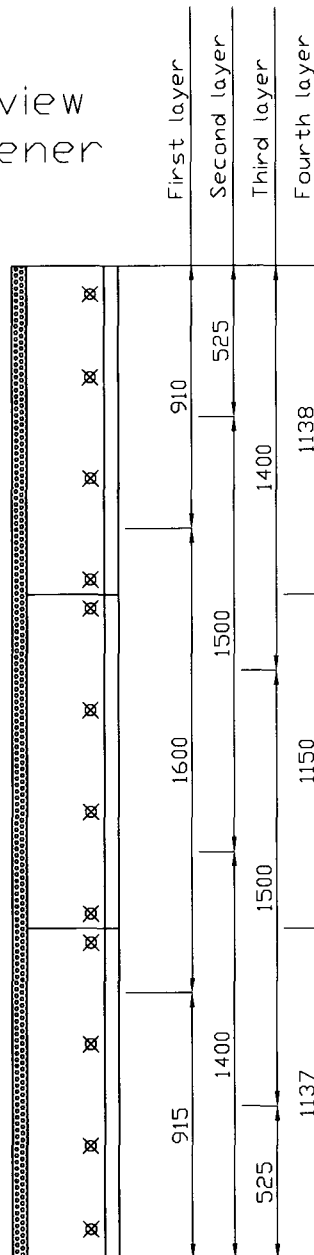
FIRE SIDE

section 1

top view
stiffener



side view
stiffener



side view
stiffener

FIRE SIDE

top view stiffener

APP: 2
REF: P604995
SIGN: RA

First layer on stiffener

Ultimate U MPN 85-25

Second layer on stiffener

Ultimate U MPN 85-25

Third layer on stiffener

Ultimate U MPN 85-25

Fourth layer on stiffener

Ultimate U MPN 66-50

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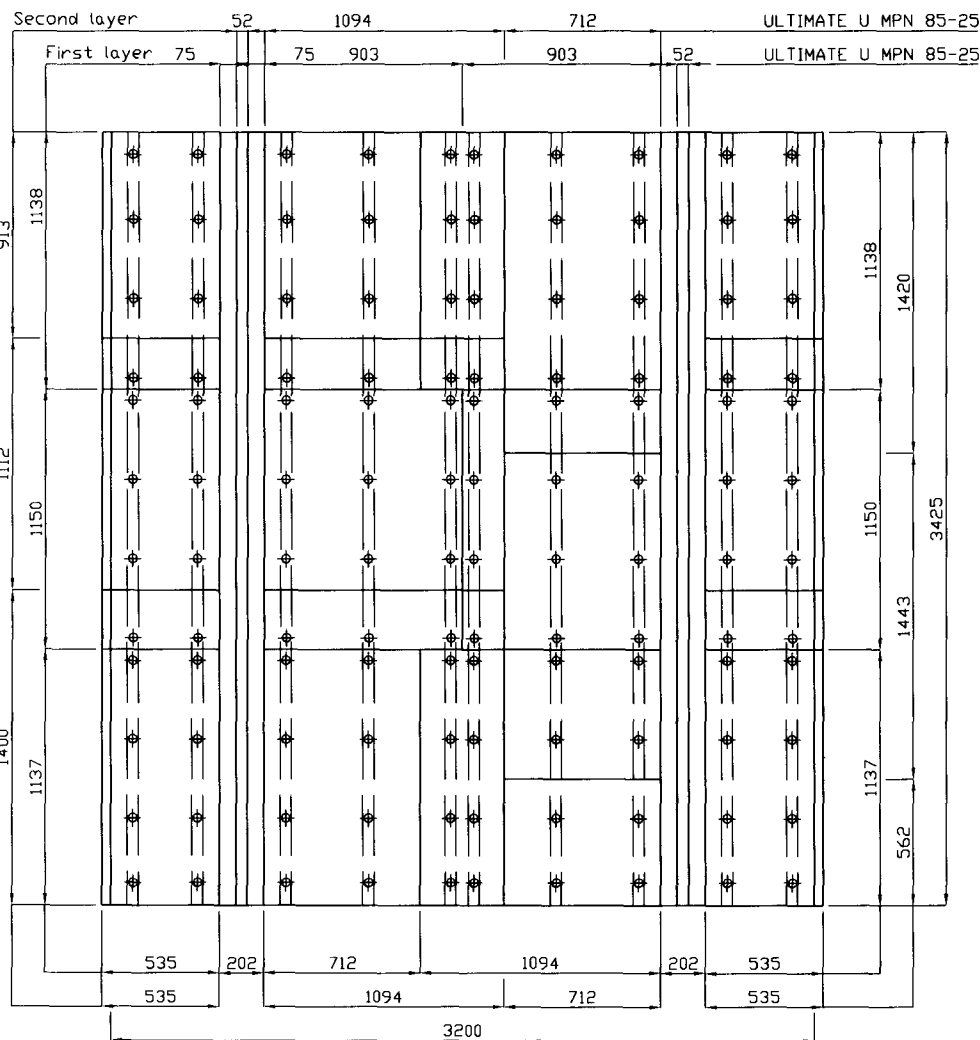
ISOVER

SAINT-GOBAIN ISOVER

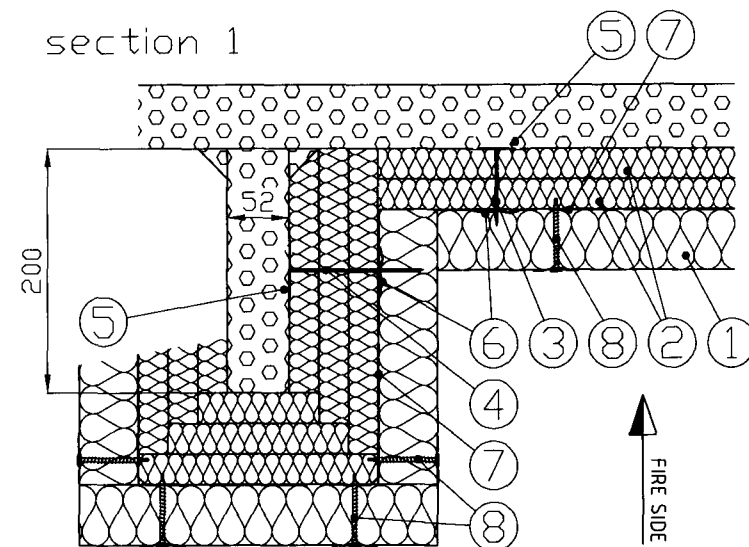
Anderungen / Modifications	Datum / Date
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FRD30 FRP Deck

Maßstab / Scale	Gezeichnet / Drawn A. Köhler	Geprüft / Checked	Datum / Date 25.01.2007	Klass. Nr. / Class No	Zeichnung Nr. / Drawing No AK2171	Index 2/4
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section 1



	Description	Specification	Manufacturer
1	Insulation	Ultimate U MPN 66-50	Saint-Gobain Isover
2	Insulation	Ultimate U MPN 85-25	Saint-Gobain Isover
3	Pin with perfor. Plate	$\phi=2.7\text{mm}$ / $L=64\text{mm}$	LM DAHL
4	Pin with perfor. Plate	$\phi=2.7\text{mm}$ / $L=114\text{mm}$	LM DAHL
5	Screws for Plate Pins	Steel $L=13\text{mm}$ $\phi=3.5\text{mm}$	
6	Washers	Steel $\phi=38\text{mm}$	LM DAHL
7	Steel Strip	40% perfor. $68 \times 0.5\text{mm}$	LM DAHL
8	Screw IR2-4.8	Steel 60mm	SFS Intec

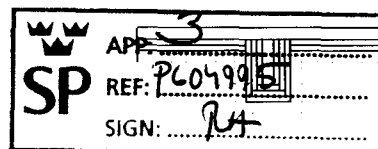
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ISOVER

SAINT-GOBAIN ISOVER

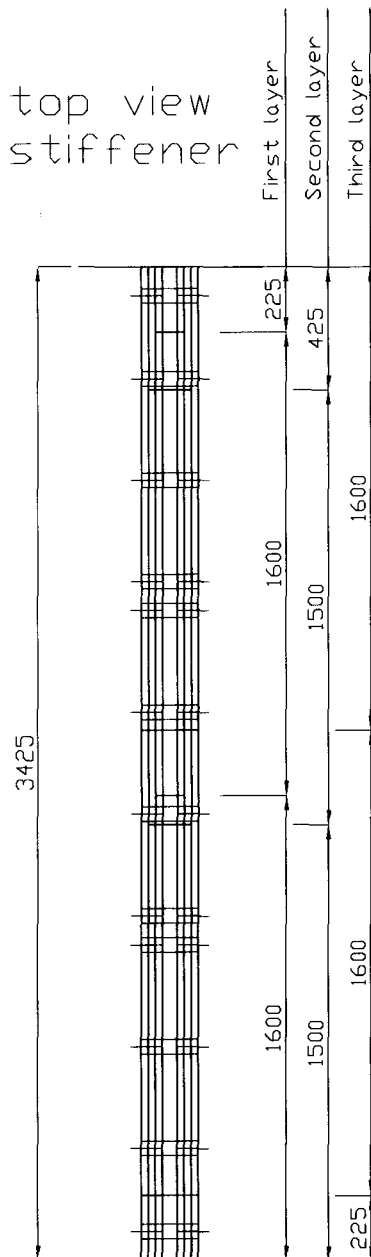
Anderungen / Modifications	Datum / Date	FRD30 FRP Deck		
E		top view - level layer 1+2		
D				
C				
B				
A				
Maßstab / Scale	Gezeichnet / Drawn A. Köhler	Gepflicht / Checked	Datum / Date 25.01.2007	Klass. Nr. / Class. No. AK2171
			Zeichnung Nr. / Drawing No. AK2171	Index 3/4



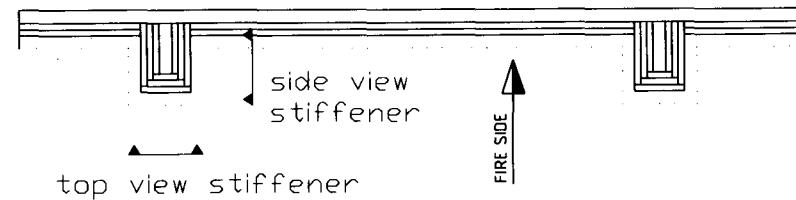
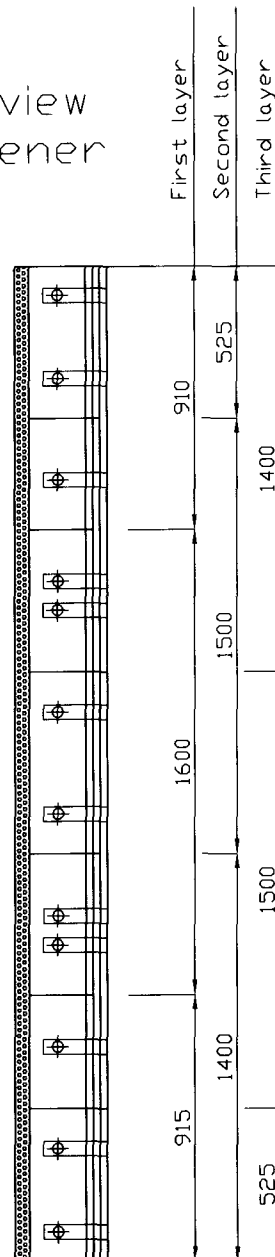
FIRE SIDE


section 1

top view
stiffener



side view
stiffener




 APP: 9
 REF: P60995
 SIGN: 74

First layer on stiffener	Ultimate U MPN 85-25
Second layer on stiffener	Ultimate U MPN 85-25
Third layer on stiffener	Ultimate U MPN 85-25
Fourth layer on stiffener	Ultimate U MPN 66-50

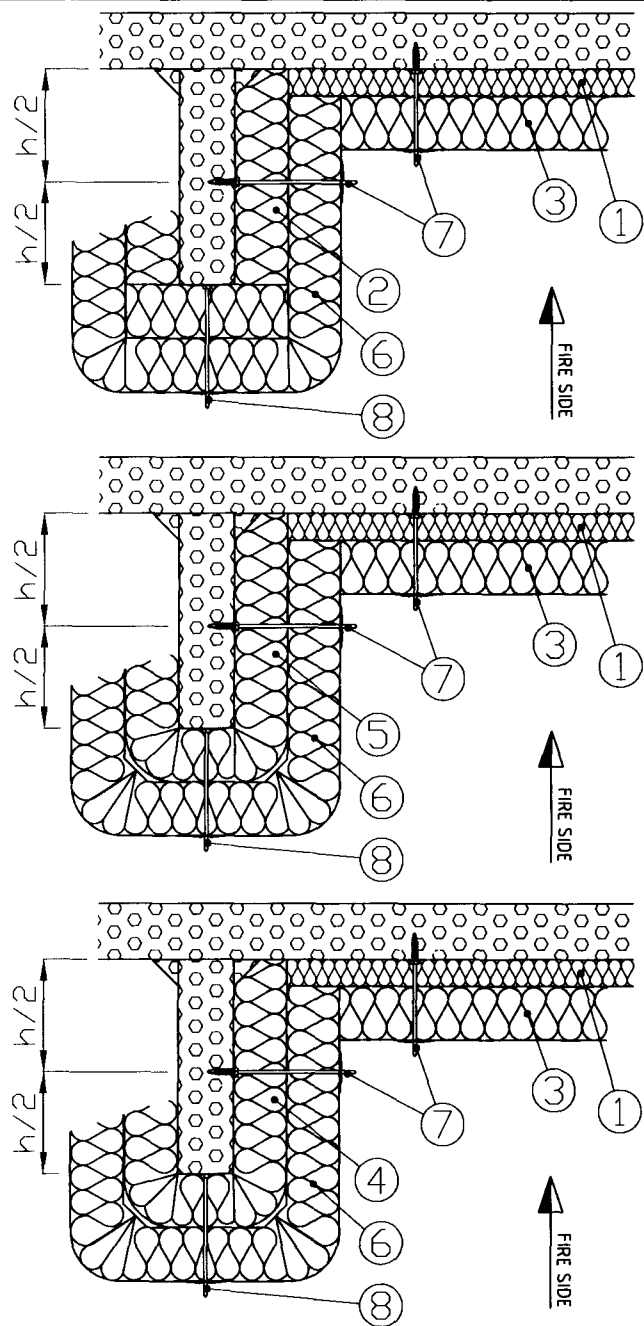
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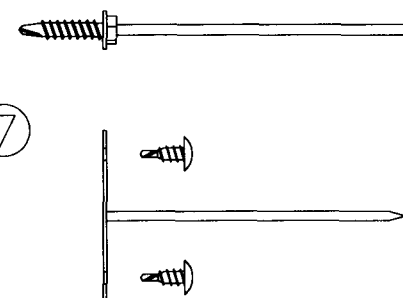
ISOVER

SAINT-GOBAIN ISOVER

Änderungen / Modifications	Datum / Date	FRD30 FRP Deck stiffener layer 1-3			
E					
D					
C					
B					
A					
Maßstab / Scale	Gezeichnet / Drawn A. Köhler	Gepüft / Checked	Datum / Date 25.01.2007	Klass. Nr. / Class. No.	Zeichnung Nr. / Drawing No. AK2171
					Index 4/4




 APP:
 REF: P705681
 SIGN: R4



Description	Specification	
1 Insulation	ULTIMATE U MPN 85-25	Saint-Gobain Isover
2 Insulation	ULTIMATE U MPN 66-50	Saint-Gobain Isover
3 Insulation	ULTIMATE U MPN 66-50 or U MPA 66-50 or U MPG 66-220, 50mm	
4 Insulation	ULTIMATE U MFN 66-50	
5 Insulation	ULTIMATE U Marine Wired Mat 66 N, 50mm	
6 Insulation	ULTIMATE U Marine Wired Mat 66 N, 50mm or U Marine Wired Mat 66 Alu1, 50mm or U Marine Wired Mat 66 GC2, 50mm or U Marine Wired Mat 66 V1, 50mm	
7 Screw Pin	steel, $\phi=3.0\text{mm}$, $l=100\text{mm}/125\text{mm}$, washer $\phi 38\text{mm}$	
	alternative: Pin with perforated Plate, steel, $\phi=2.7\text{mm}$, $l=100\text{mm}/125\text{mm}$, washer $\phi 38\text{mm}$	
8	glued perfor. Plate Pin; $\phi=2.7\text{mm}$, $l=114\text{mm}$, washer $\phi 38\text{mm}$	
pin pattern		
	level: max 275mm pin to pin, max 80mm pin to insulation joint	
	stiffener: max 275mm pin to pin along the stiffener	

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ISOVER

SAINT-GOBAIN ISOVER

Änderungen / Modifications	Datum / Date	Assessment FRD30 FRP Deck			
E					
D					
C					
B					
A					
Maßstab / Scale	Gezeichnet / Drawn A. Köhler	Gepflicht / Checked	Datum / Date 09.07.08	Klass. Nr. / Class. No.	Zeichnung Nr. / Drawing No. AK2178
					Index 2/2