CERTIFICATE OF APPROVAL
No CF 563

This is to certify that, in accordance with
TS00 General Requirements for Certification of Fire Protection Products
The undermentioned products of

SIDERISE INSULATION LIMITED

Forge Industrial Estate, Maesteg,
Bridgend, CF34 0AZ
Tel: 01656 730833 Fax: 01656 812509

Have been assessed against the requirements of the Technical Schedule(s) denoted below and are approved for use subject to the conditions appended hereto:

CERTIFIED PRODUCT	TECHNICAL SCHEDULE
Lamatherm 'CW', 'EW' & 'TW' Cavity Barriers and Firestops (BS 476: Part 20)	**TS 39 Fire Resisting Cavity Barriers**
Lamatherm 'CW-FS' Firestops (BS EN 1364-4)	

Signed and sealed for and on behalf of Exova (UK) Limited trading as Warrington Certification

Paul Duggan
Certification Manager

Issued:	25th February 2008
Revised:	6th November 2018
Valid to:	5th February 2019

Lamatherm CW, EW & TW Cavity Barriers and Fire Stops – BS 476: Part 20

This Certificate of Approval relates to the fire resistance of Lamatherm CW, EW & TW cavity barriers and firestops when used in the following applications:

This approval uses the Integrity and Insulation criteria defined in BS 476: Part 20 subject to any undermentioned conditions.

Lamatherm CW-FS Fire Stops - BS EN 1364 Part 4

This Certificate of Approval relates to the fire resistance of Lamatherm CW-FS; firestops when used in the following application.

This approval uses the Integrity and Insulation criteria defined in BS EN 1364 Part 4 subject to any undermentioned conditions.

The products are approved on the basis of:

i) Initial type testing.
ii) A design appraisal against TS39.
iii) Certification of quality management system to ISO 9001: 2008.
iv) Inspection and surveillance of factory production control.
v) Audit testing.

This Certificate of Approval must be read in conjunction with CERTIFIRE Technical Schedule TS39, Fire Resisting Cavity Barriers.

Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019

General Requirements

There is no restriction to the direction of exposure for the cavity barriers or firestops.

Cavity barriers and firestops shall not be penetrated by services, e.g. pipes or cables.

Approved products, applications and fire resistance periods

This certificate approves the products and applications detailed within the following tables subject to the installation of the products in accordance with the requirements of this certificate and specifically detailed within the manufacturer's installation instructions.

Where the approval relates to applications involving external façade assemblies, only the specific types of constructions defined below each table and illustrated in the associated drawings are approved.

Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019

Lamatherm CW Cavity Barriers and Fire Stops – BS 476: Part 20

Table 1 – Floor slab to concrete cladding applications

Gap Width (mm)	Product	Seal Thickness (mm)	Compression %	Compression Minimum (mm)	Performance to BS 476: Part 20		Cover Length (mm)	Bracket Requirement
					Integrity (mins)	Insulation (mins)		
20 to 50	CW-CB30	75	n/a	10	30	30	1200	No Brackets required
	CW-FS60	90	n/a	10	60	60	1200	
	CW-FS120	120	n/a	10	120	120	1200	
	CW-FS300	175	n/a	10	300	300	1125	
51 to 100	CW-CB30	75	n/a	10	30	30	1200	2 No. Standard brackets* per length at 600mm nominal centres, brackets to be mechanically fixed to structure
	CW-FS60	90	n/a	10	60	60	1200	
	CW-FS120	120	n/a	10	120	120	1200	
	CW-FS300	175	n/a	10	300	300	1125	
101 to400	CW-CB30	75	10%	n/a	30	30	1200	2 No. Standard brackets* per length at 600mm nominal centres, brackets to be mechanically fixed to structure
	CW-FS60	90	10%	n/a	60	60	1200	
	CW-FS120	120	10%	n/a	120	120	1200	
	CW-FS300	175	10%	n/a	300	300	1125	
401 to 600	CW-FS60-X	120	10%	n/a	60	60	1200	4 No. Standard brackets* per length at 300mm nominal centres, brackets to be mechanically fixed to structure
	CW-FS120-X	175	10%	n/a	120	120	1125	
601 to 1200	CW-FS60-SB	120	n/a	60	60	60	1200	3 No. Structural brackets* per length at 400mm nominal centres, brackets to be mechanically fixed to structure
	CW-FS120-SB	175	n/a	60	120	120	1125	

- The floor slab shall be of a thickness at least equal to that of the relevant seal and shall be capable of providing adequate support to the seal for the required period of fire resistance. The floor shall have a fire resistance of at least that required for the seal in terms of BS 476: Part 21.

*

Bracket reference	Gap width range (mm)
B65/110	50-150
B195	151-240
B355	241-400
B600	601-900
B900	901-1200

*** B355 up to 600mm as per Table 1**

Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019

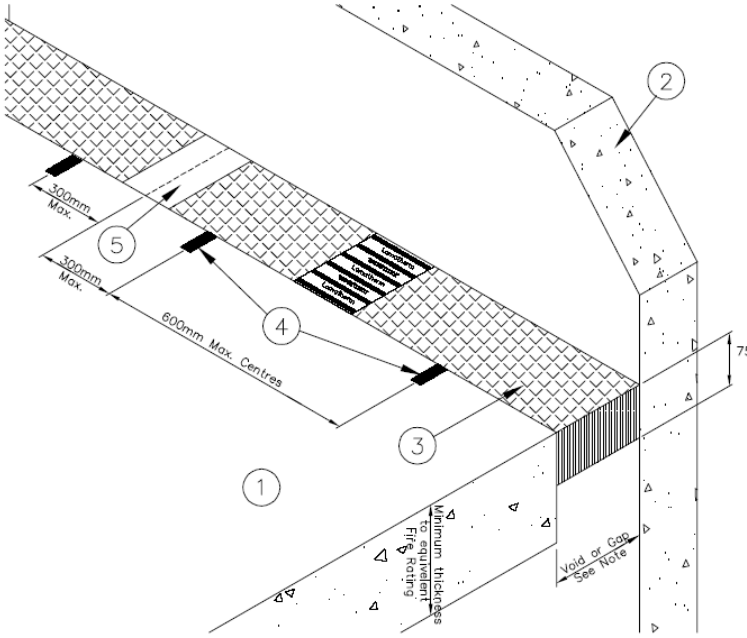
Lamatherm CW Cavity Barriers and Fire Stops – BS 476: Part 20

Typical installation detail for the floor slab to concrete cladding applications detailed in Table 1.

Revision:	Amendments:	Date:	By:
A	First Issue	27–09–10	KW
B	Second Issue	30–09–10	KW
C	Comments Revised	05–10–10	KW

Rev: C

Drawing No. SW2328



\# Minimum Void dimension – 20mm
\# Maximum Void dimension – 1200mm

1.0mm Galvanised Steel to BS EN10142 1991
\+ For voids up to 400mm Brackets need not be fixed to slab, just returned to top surface.

1. Concrete Floor.
2. Concrete/Stone Cladding
\# 3. Lamatherm CW/FS or CW/CB. For scope & compression ratio refer to Certifire Cert 563.
\+ 4. Bracket – For quantity & type refer to Cert 563
5. Class "0" Aluminium Foil Tape applied to joints, top side only.

75mm – 175mm Dependant on Fire Rating See table in Cert. CF563

The gap stability is a fundamental requirement in order to achieve fire compartmentation when utilising these products, it should be noted that the fire stops will only function to the specified rating providing the gap stability does not deviate greater than the specified compression tolerances stated in the tables. Appropriate external facade support systems should be designed and installed to limit this potential movement at the elevated temperatures of a fire and should the gap increase beyond these tolerances and or fail completely in the event of a fire, then the fire stop will cease to function.

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Scale: N.T.S.

Client: Siderise
Project: Siderise Standard CW Insulation
Title: Concrete Cladding
Drawn By: Kelvin Williams
Date: 27 September 2010
Checked By: Chris Mort
Drawing No. SW2328
Rev: C

Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019

Lamatherm CW Cavity Barriers and Fire Stops – BS 476: Part 20

Table 2 – Masonry/concrete wall to concrete cladding applications

Gap Width (mm)	Product	Seal Thickness (mm)	Compression %	Compression Minimum (mm)	Performance to BS 476: Part 20		Cover Length (mm)	Bracket Requirement
					Integrity (mins)	Insulation (mins)		
20 to 50	CW-CB30	75	n/a	10	30	30	1200	No Brackets required
	CW-FS60	90	n/a	10	60	60	1200	
	CW-FS120	120	n/a	10	120	120	1200	
	CW-FS300	175	n/a	10	300	300	1125	
51 to 100	CW-CB30	75	n/a	10	30	30	1200	2 No. Standard brackets* per length at 600mm nominal centres, brackets to be mechanically fixed to structure
	CW-FS60	90	n/a	10	60	60	1200	
	CW-FS120	120	n/a	10	120	120	1200	
	CW-FS300	175	n/a	10	300	300	1125	
101 to 400	CW-CB30	75	10%	n/a	30	30	1200	2 No. Standard brackets* per length at 600mm nominal centres, brackets to be mechanically fixed to structure
	CW-FS60	90	10%	n/a	60	60	1200	
	CW-FS120	120	10%	n/a	120	120	1200	
	CW-FS300	175	10%	n/a	300	300	1125	

- **The masonry/concrete wall shall be of a thickness at least equal to that of the relevant seal and shall be capable of providing adequate support to the seal for the required period of fire resistance. The wall shall have a fire resistance of at least that required for the seal in terms of BS 476: Part 21 or 22: 1987.**

*

Bracket reference	Gap width range (mm)
B65/110	**50-150**
B195	**151-240**
B355	**241-400**

Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019

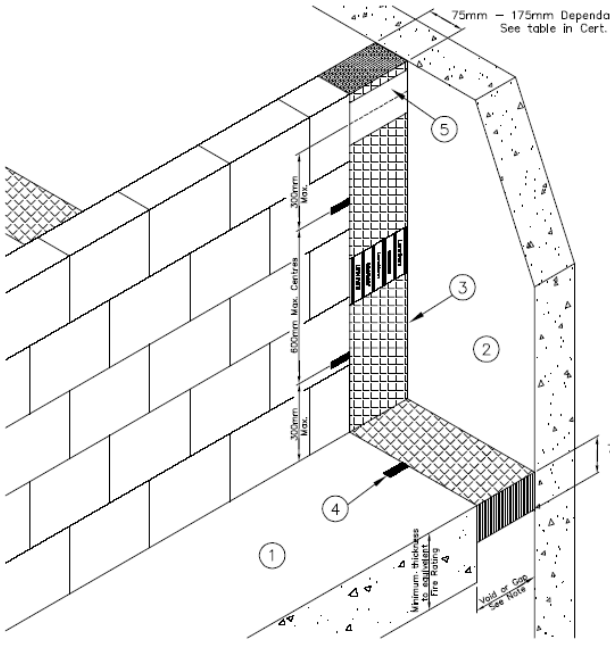
Lamatherm CW Cavity Barriers and Fire Stops – BS 476: Part 20

Typical installation detail for the Masonry/concrete wall to concrete cladding applications detailed in Table 2.

Revision:	Amendments:	Date:	By:
A	First Issue	08–10–10	KW

Rev: A

Drawing No. SW2337



\# Minimum Void dimension – 20mm
Maximum Void dimension – 1200mm

\+ 1.0mm Galvanised Steel to BS EN10142 1991
For voids up to 400mm Brackets need not be fixed to slab, just returned to top surface.

1. Concrete Floor.
2. Concrete/Stone Cladding
\# 3. Lamatherm CW/FS or CW/CB. For scope & compression ratio refer to Certifire Cert 563.
\+ 4. Bracket – For quantity & type refer to Cert 563
5. Class "0" Aluminium Foil Tape applied to joints, one side only.

75mm – 175mm Dependant on Fire Rating
See table in Cert. CF563

The gap stability is a fundamental requirement in order to achieve fire compartmentation when utilising these products, it should be noted that the fire stops will only function to the specified rating providing the gap stability does not deviate greater than the specified compression tolerances stated in the tables. Appropriate external facade support systems should be designed and installed to limit this potential movement at the elevated temperatures of a fire and should the gap increase beyond these tolerances and or fail completely in the event of a fire, then the fire stop will cease to function.

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Scale: N.T.S.

Client: Siderise
Project: Siderise Standard Vertical CW Insulation
Title: Masonry / Concrete Cladding
Drawn By: Kelvin Williams
Date: 27 September 2010
Checked By: Chris Mort
Drawing No. SW2337
Rev: A

Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019

Lamatherm CW Cavity Barriers and Fire Stops – BS 476: Part 20

Table 3 – Floor slab to external façade assembly applications								
Gap Width (mm)	**Product**	**Seal Thickness (mm)**	**Compression %**	**Compression Minimum (mm)**	**Performance to BS 476: Part 20**		**Cover Length**	**Bracket Requirement**
					Integrity (mins)	Insulation (mins)	(mm)	
20 to 50	CW-CB30	75	n/a	10	30	30	1200	No Brackets required
	CW-FS60	90	n/a	10	60	60	1200	
	CW-FS120	120	n/a	10	120	120	1200	
	CW-FS300	175	n/a	10	300	300	1125	
51 to 100	CW-CB30	75	n/a	10	30	30	1200	2 No. Standard brackets* per length at 600mm nominal centres, brackets to be mechanically fixed to structure
	CW-FS60	90	n/a	10	60	60	1200	
	CW-FS120	120	n/a	10	120	120	1200	
	CW-FS300	175	n/a	10	300	300	1125	
101 to400	CW-CB30	75	10%	n/a	30	30	1200	2 No. Standard brackets* per length at 600mm nominal centres, brackets to be mechanically fixed to structure
	CW-FS60	90	10%	n/a	60	60	1200	
	CW-FS120	120	10%	n/a	120	120	1200	
	CW-FS300	175	10%	n/a	300	300	1125	
401 to 600	CW-FS60-X	120	10%	n/a	60	60	1200	4 No. Standard brackets* per length at 300mm nominal centres, brackets to be mechanically fixed to structure
	CW-FS120-X	175	10%	n/a	120	120	1125	
601 to 1200	CW-FS60-SB	120	n/a	60	60	60	1200	3 No. Structural brackets* per length at 400mm nominal centres, brackets to be mechanically fixed to structure
	CW-FS120-SB	175	n/a	60	120	120	1125	

- The floor slab shall be of a thickness at least equal to that of the relevant seal and shall be capable of providing adequate support to the seal for the required period of fire resistance. The floor shall have a fire resistance of at least that required for the seal in terms of BS 476: Part 21.
- External façade support frames of typical façade construction shall incorporate infill panels of one of the following:
  - i.) Mineral fibre core composite panel having steel or aluminium facings[$]
  - ii.) Mineral based non-combustible board faced panelling having a minimum thickness of 75 mm.

Mineral fibre cored composite panel may include an additional lining of mineral fibre board fixed to the internal face of the panel (see drawing No. SW2325).

[$] The insulation performance of the panel should only be assumed to be satisfied on the unexposed surface of the seal. Due to the highly conductive nature of metallic facings, it cannot be assumed that the surface temperature of these facings will also satisfy the insulation performance criteria. Evidence of the panel's ability to satisfy the insulation criteria in this specific application should be sought from the panel manufacturer if an insulation performance is required from the panel construction.

Lamatherm CW Cavity Barriers and Fire Stops – BS 476: Part 20

*

Bracket reference	Gap width range (mm)

Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019

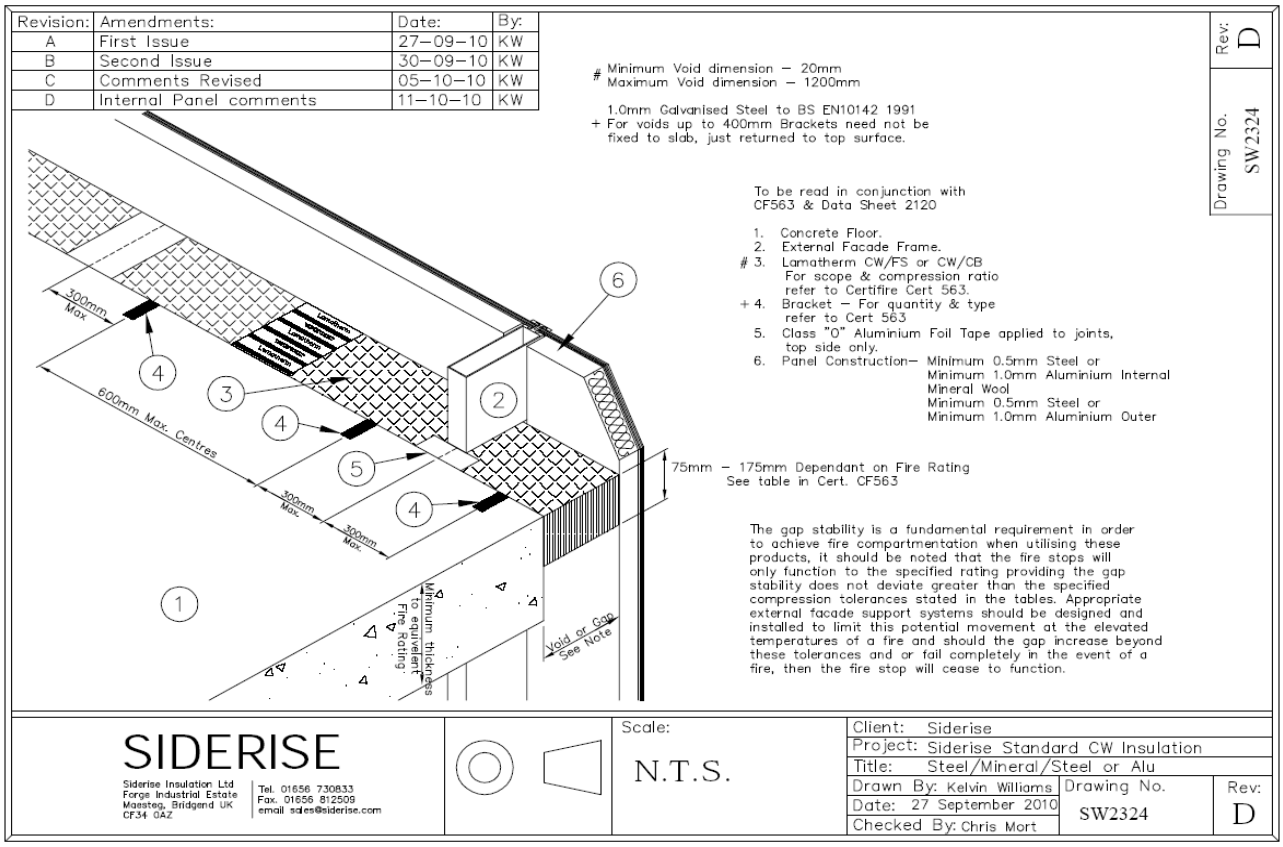
B65/110	50-150
B195	151-240
B355	241-400
B600	400-900
B900	901-1200

* B355 up to 600mm as per Table 3

Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019

Lamatherm CW Cavity Barriers and Fire Stops – BS 476: Part 20

Typical installation detail for the floor slab to external façade (mineral fibre core composite panel) assembly applications detailed in Table 3.



Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019

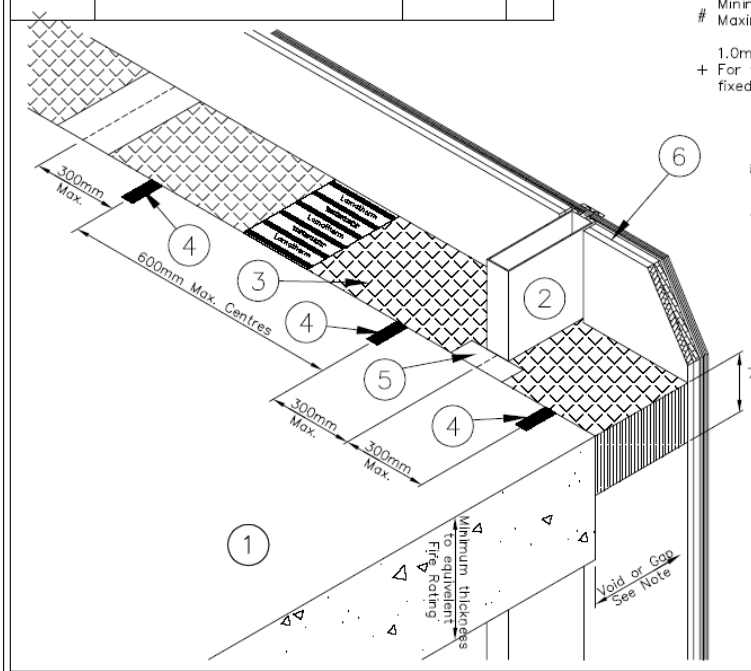
Lamatherm CW Cavity Barriers and Fire Stops – BS 476: Part 20

Typical installation detail for the floor slab to external façade (non-combustible board faced panel) assembly applications detailed in Table 3.

Revision:	Amendments:	Date:	By:
A	First Issue	27–09–10	KW
B	Second Issue	30–09–10	KW
C	Comments Revised	05–10–10	KW

Rev: C

Drawing No. SW2327



\# Minimum Void dimension – 20mm
Maximum Void dimension – 1200mm

1.0mm Galvanised Steel to BS EN10142 1991

\+ For voids up to 400mm Brackets need not be fixed to slab, just returned to top surface

1. Concrete Floor.
2. External Facade Frame.
\# 3. Lamatherm CW/FS or CW/CB. For scope & compression ratio refer to Certifire Cert 563.
\+ 4. Bracket – For quantity & type refer to Cert 563
5. Class "O" Aluminium Foil Tape applied to joints, top side only.
6. Cementitious Boards as detailed in Cert 563

75mm – 175mm Dependant on Fire Rating See table in Cert. CF563

The gap stability is a fundamental requirement in order to achieve fire compartmentation when utilising these products, it should be noted that the fire stops will only function to the specified rating providing the gap stability does not deviate greater than the specified compression tolerances stated in the tables. Appropriate external facade support systems should be designed and installed to limit this potential movement at the elevated temperatures of a fire and should the gap increase beyond these tolerances and or fail completely in the event of a fire, then the fire stop will cease to function.

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Scale: N.T.S.

Client: Siderise
Project: Siderise Standard CW Insulation
Title: Cement Particle Board
Drawn By: Kelvin Williams
Date: 27 September 2010
Checked By: Chris Mort
Drawing No. SW2327
Rev: C

Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019

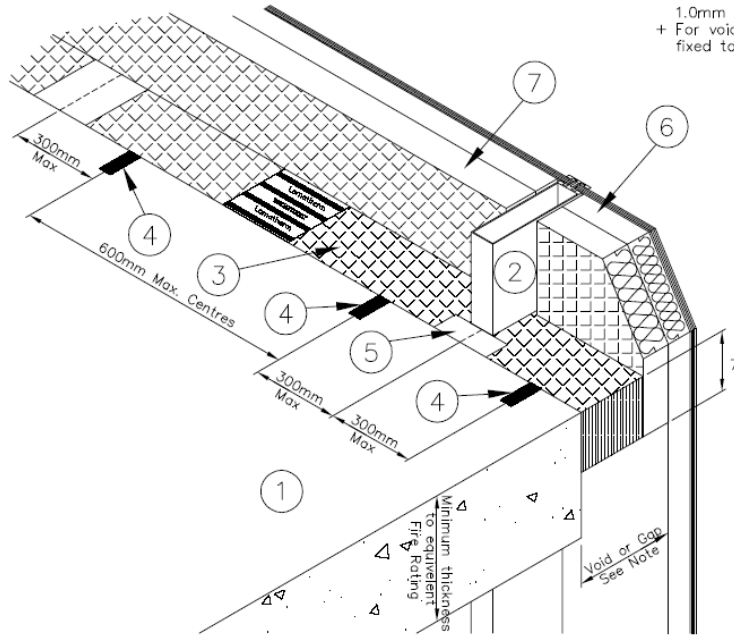
Lamatherm CW Cavity Barriers and Fire Stops – BS 476: Part 20

Typical installation detail for the floor slab to external façade (mineral fibre core composite panel) assembly applications detailed in Table 3.

Revision:	Amendments:	Date:	By:
A	First Issue	27–09–10	KW
B	Second Issue	30–09–10	KW
C	Comments Revised	05–10–10	KW
D	Internal Panel comments	11–10–10	KW

Rev: D

Drawing No. SW2325



\# Minimum Void dimension – 20mm
\# Maximum Void dimension – 1200mm

1.0mm Galvanised Steel to BS EN10142 1991
\+ For voids up to 400mm Brackets need not be fixed to slab, just returned to top surface.

1. Concrete Floor.
2. External Facade Frame.
\# 3. Lamatherm CW/FS or CW/CB. For scope & compression ratio refer to Certifire Cert 563.
\+ 4. Bracket – For quantity & type refer to Cert 563
5. Class "O" Aluminium Foil Tape applied to joints, top side only.
6. Panel Construction– Minimum 1.0mm Aluminium or Minimum 0.5mm Steel Internal Mineral Wool Minimum 0.5mm Steel or Minimum 1.0mm Aluminium Outer
7. Mineral Fibre Insulation to suit "U" value requirements

75mm – 175mm Dependant on Fire Rating See table in Cert. CF563

The gap stability is a fundamental requirement in order to achieve fire compartmentation when utilising these products, it should be noted that the fire stops will only function to the specified rating providing the gap stability does not deviate greater than the specified compression tolerances stated in the tables. Appropriate external facade support systems should be designed and installed to limit this potential movement at the elevated temperatures of a fire and should the gap increase beyond these tolerances and or fail completely in the event of a fire, then the fire stop will cease to function.

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Scale: N.T.S.

Client: Siderise
Project: Siderise Standard CW Insulation
Title: Alu/Mineral/Steel or Alu. Min Fibre Ins.
Drawn By: Kelvin Williams
Date: 27 September 2010
Checked By: Chris Mort
Drawing No. SW2325
Rev: D

Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019

Lamatherm CW Cavity Barriers and Fire Stops – BS 476: Part 20

Table 4 – Masonry/concrete wall to external façade assembly applications								
Gap Width (mm)	**Product**	**Seal Thickness (mm)**	**Compression %**	**Compression Minimum (mm)**	**Performance to BS 476: Part 20**		**Cover Length**	**Bracket Requirement**
					Integrity (mins)	Insulation (mins)	(mm)	
20 to 50	CW-CB30	75	n/a	10	30	30	1200	No Brackets required
	CW-FS60	90	n/a	10	60	60	1200	
	CW-FS120	120	n/a	10	120	120	1200	
	CW-FS300	175	n/a	10	300	300	1125	
51 to 100	CW-CB30	75	n/a	10	30	30	1200	2 No. Standard brackets* per length at 600mm nominal centres, brackets to be mechanically fixed to structure
	CW-FS60	90	n/a	10	60	60	1200	
	CW-FS120	120	n/a	10	120	120	1200	
	CW-FS300	175	n/a	10	300	300	1125	
101 to 400	CW-CB30	75	10%	n/a	30	30	1200	2 No. Standard brackets* per length at 600mm nominal centres, brackets to be mechanically fixed to structure
	CW-FS60	90	10%	n/a	60	60	1200	
	CW-FS120	120	10%	n/a	120	120	1200	
	CW-FS300	175	10%	n/a	300	300	1125	

- The masonry/concrete wall shall be of a thickness at least equal to that of the relevant seal and shall be capable of providing adequate support to the seal for the required period of fire resistance. The wall shall have a fire resistance of at least that required for the seal in terms of BS 476: Part 21 or 22: 1987.
- External façade support frames of typical façade construction shall incorporate infill panels of one of the following:
  - i.) Mineral fibre core composite panel having steel or aluminium facings[$]
  - ii.) Mineral based non-combustible board faced panelling having a minimum thickness of 75 mm.

[$] The insulation performance of the panel should only be assumed to be satisfied on the unexposed surface of the seal. Due to the highly conductive nature of metallic facings, it cannot be assumed that the surface temperature of these facings will also satisfy the insulation performance criteria. Evidence of the panel's ability to satisfy the insulation criteria in this specific application should be sought from the panel manufacturer if an insulation performance is required from the panel construction.

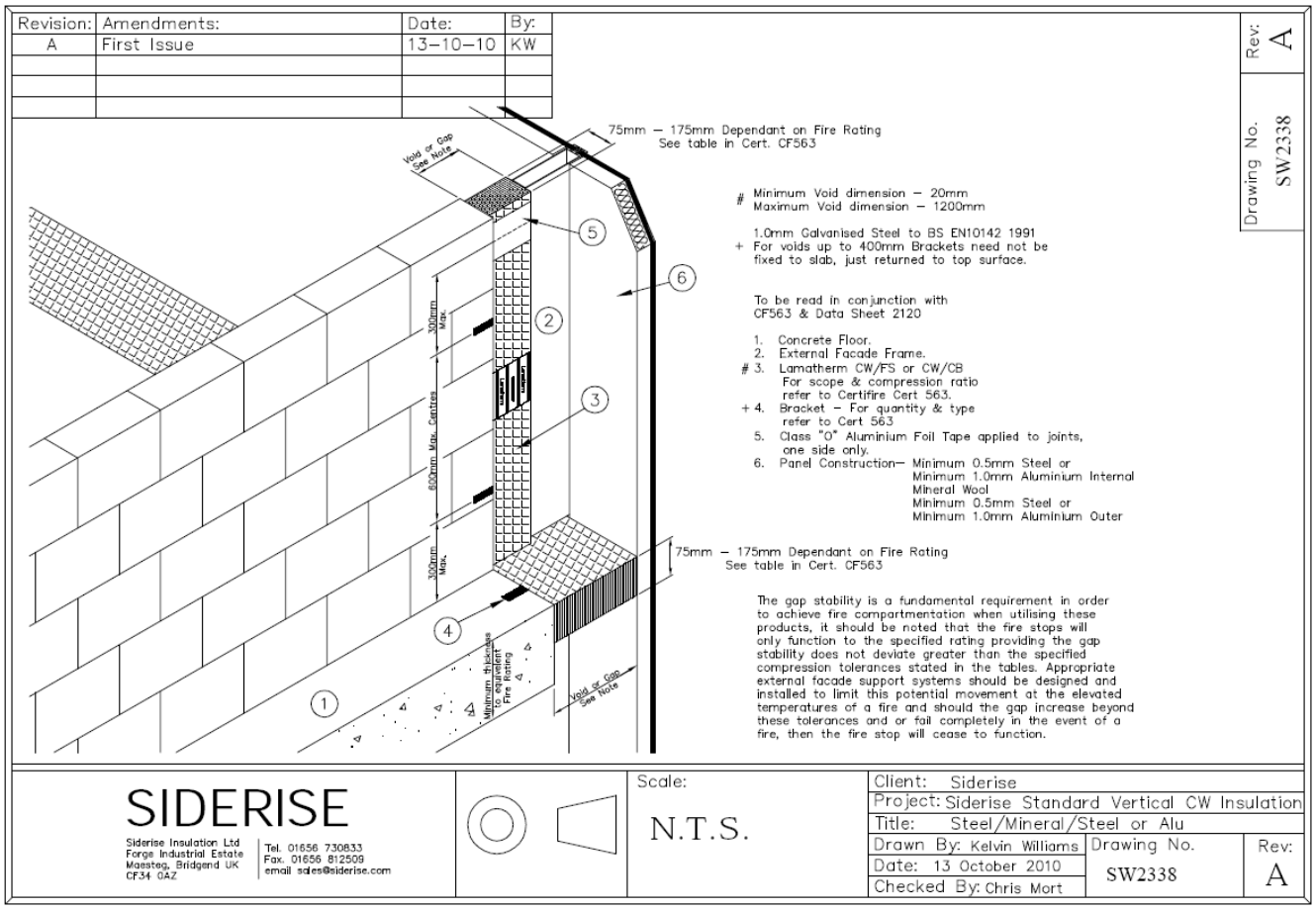
*

Bracket reference	Gap width range (mm)
B65/110	50-150
B195	151-240
B355	241-400

Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019

Lamatherm CW Cavity Barriers and Fire Stops – BS 476: Part 20

Typical installation detail for the Masonry/concrete wall to external façade assembly detailed in Table 4.



Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019

Lamatherm EW Cavity Barriers and Fire Stops – BS 476: Part 20

Table 5- Floor slab to masonry wall applications

Gap Width (mm)	Product	Seal Thickness (mm)	Min Compression (%)	Min Compression (mm)	Performance to BS 476: Part 20		Cover Length (mm)	Bracket Requirement
					Integrity (mins)	Insulation (mins)		
20 to 50	EW-CB30	75	n/a	10	30	30	1200	No Brackets required
	EW-FS60	90	n/a	10	60	60	1200	
	EW-FS120	120	n/a	10	120	120	1200	
	EW-FS300	175	n/a	10	300	300	1125	
51 to 100	EW-CB30	75	n/a	10	30	30	1200	2 No. Standard brackets* per length at 600mm nominal centres, brackets to be mechanically fixed to structure
	EW-FS60	90	n/a	10	60	60	1200	
	EW-FS120	120	n/a	10	120	120	1200	
	EW-FS300	175	n/a	10	300	300	1125	
101 to 400	EW-CB30	75	n/a	10	30	30	1200	2 No. Standard brackets* per length at 600mm nominal centres, brackets to be mechanically fixed to structure
	EW-FS60	90	n/a	10	60	60	1200	
	EW-FS120	120	n/a	10	120	120	1200	
	EW-FS300	175	n/a	10	300	300	1125	

- The floor slab shall be of a thickness at least equal to that of the relevant seal and shall be capable of providing adequate support to the seal for the required period of fire resistance. The floor shall have a fire resistance of at least that required for the seal in terms of BS 476: Part 21.
- The masonry/concrete wall shall be of a thickness at least equal to that of the relevant seal and shall be capable of providing adequate support to the seal for the required period of fire resistance. The wall shall have a fire resistance of at least that required for the seal in terms of BS 476: Part 21 or 22: 1987.

*

Bracket reference	Gap width range (mm)
B65/110	50-150
B195	151-240
B355	241-400

Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019

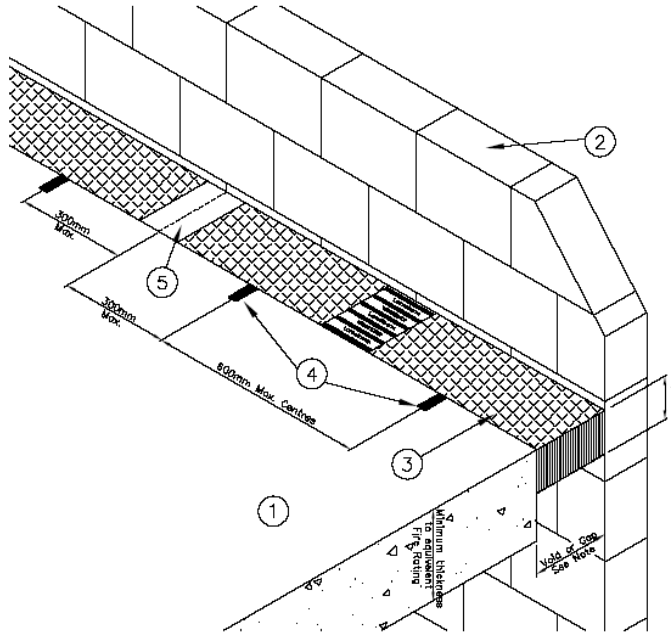
Lamatherm EW Cavity Barriers and Fire Stops – BS 476: Part 20

Typical installation detail for the floor slab to masonry wall applications detailed in Table 5.

Revision:	Amendments:	Date:	By:
A	First Issue	27–09–10	KW
B	Second Issue	30–09–10	KW
C	Comments Revised	05–10–10	KW

Rev: C

Drawing No. SW2329



Minimum Void dimension – 20mm
Maximum Void dimension – 1200mm

+ 1.0mm Galvanised Steel to BS EN10142 1991
For voids up to 400mm Brackets need not be fixed to slab, just returned to top surface.

1. Concrete Floor.
2. Brickwork/Masonry Cladding.
3. Lamatherm EW/FS or EW/CB.
For scope & compression ratio refer to Certifire Cert 563.
+ 4. Bracket – For quantity & type refer to Cert 563
5. Class "O" Aluminium Foil Tape applied to joints, top side only.

75mm – 175mm Dependant on Fire Rating See table in Cert. CF563

The gap stability is a fundamental requirement in order to achieve fire compartmentation when utilising these products, it should be noted that the fire stops will only function to the specified rating providing the gap stability does not deviate greater than the specified compression tolerances stated in the tables. Appropriate external façade support systems should be designed and installed to limit this potential movement at the elevated temperatures of a fire and should the gap increase beyond these tolerances and or fail completely in the event of a fire, then the fire stop will cease to function.

SIDERISE

Siderise Insulation Ltd
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Scale: N.T.S.

Client: Siderise
Project: Siderise Standard CW Insulation
Title: Brickwork Cladding
Drawn By: Kelvin Williams
Date: 27 September 2010
Checked By: Chris Mort
Drawing No. SW2329
Rev: C

Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019

Lamatherm EW Cavity Barriers and Fire Stops – BS 476: Part 20

Table 6- Masonry/concrete wall to masonry wall applications								
Gap Width (mm)	**Product**	**Seal Thickness (mm)**	**Min Compression (%)**	**Min Compression (mm)**	**Performance to BS 476: Part 20**		**Cover Length (mm)**	**Bracket Requirement**
					Integrity (mins)	Insulation (mins)		
20 to 50	EW-CB30	75	n/a	10	30	30	1200	No Brackets required
	EW-FS60	90	n/a	10	60	60	1200	
	EW-FS120	120	n/a	10	120	120	1200	
	EW-FS300	175	n/a	10	300	300	1125	
51 to 100	EW-CB30	75	n/a	10	30	30	1200	2 No. Standard brackets* per length at 600mm nominal centres, brackets to be mechanically fixed to structure
	EW-FS60	90	n/a	10	60	60	1200	
	EW-FS120	120	n/a	10	120	120	1200	
	EW-FS300	175	n/a	10	300	300	1125	
101 to 400	EW-CB30	75	n/a	10	30	30	1200	2 No. Standard brackets* per length at 600mm nominal centres, brackets to be mechanically fixed to structure
	EW-FS60	90	n/a	10	60	60	1200	
	EW-FS120	120	n/a	10	120	120	1200	
	EW-FS300	175	n/a	10	300	300	1125	

- The masonry/concrete walls shall be of a thickness at least equal to that of the relevant seal and shall be capable of providing adequate support to the seal for the required period of fire resistance. The wall shall have a fire resistance of at least that required for the seal in terms of BS 476: Part 21 or 22: 1987.

*

Bracket reference	Gap width range (mm)
B65/110	50-150
B195	151-240
B355	241-400

Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019

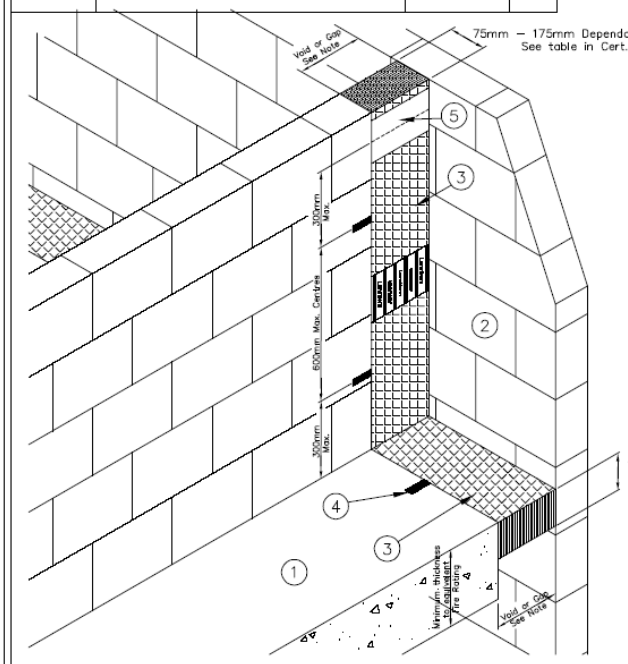
Lamatherm EW Cavity Barriers and Fire Stops – BS 476: Part 20

Typical installation detail for the Masonry/concrete wall to masonry wall applications detailed in Table 6.

Revision:	Amendments:	Date:	By:
A	First Issue	13–10–10	KW

Rev: A

Drawing No. SW2339



\# Minimum Void dimension – 20mm
Maximum Void dimension – 1200mm

1.0mm Galvanised Steel to BS EN10142 1991

\+ For voids up to 400mm Brackets need not be fixed to slab, just returned to top surface.

1. Concrete Floor.
2. Brickwork/Masonry Cladding.
\# 3. Lamatherm CW/FS or CW/CB. For scope & compression ratio refer to Certifire Cert 563.
\+ 4. Bracket – For quantity & type refer to Cert 563
5. Class "0" Aluminium Foil Tape applied to joints, one side only.

75mm – 175mm Dependant on Fire Rating
See table in Cert. CF563

The gap stability is a fundamental requirement in order to achieve fire compartmentation when utilising these products, it should be noted that the fire stops will only function to the specified rating providing the gap stability does not deviate greater than the specified compression tolerances stated in the tables. Appropriate external facade support systems should be designed and installed to limit this potential movement at the elevated temperatures of a fire and should the gap increase beyond these tolerances and or fail completely in the event of a fire, then the fire stop will cease to function.

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Scale: N.T.S.

Client: Siderise
Project: Siderise Standard Vertical CW Insulation
Title: Masonry / Masonry Cladding
Drawn By: Kelvin Williams
Date: 27 September 2010
Checked By: Chris Mort
Drawing No. SW2339
Rev: A

Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019

Lamatherm TW Cavity Barriers and Fire Stops – BS 476: Part 20

Table 7- Head of concrete/masonry wall to underside of floor slab								
Gap Width (mm)	**Product**	**Seal Thickness** (mm)	**Min. Compression** %	**Min. Compression** (mm)	**Performance to BS 476: Part 20**		**Cover Length** (mm)	**Bracket Requirement**
					Integrity (mins)	Insulation (mins)		
20 to 50	TW-CB30	75	n/a	10	30	30	1200	No Brackets required
	TW-FS60	90	n/a	10	60	60	1200	
	TW-FS120	120	n/a	10	120	120	1200	
	TW-FS300	175	n/a	10	300	300	1125	
51 to 100	TW-CB30	75	n/a	10	30	30	1200	2 No. Standard brackets* per length at 600mm nominal centres, brackets to be mechanically fixed to structure
	TW-FS60	90	n/a	10	60	60	1200	
	TW-FS120	120	n/a	10	120	120	1200	
	TW-FS300	175	n/a	10	300	300	1125	
101 to400	TW-CB30	75	10%	n/a	30	30	1200	2 No. Standard brackets* per length at 600mm nominal centres, brackets to be mechanically fixed to structure
	TW-FS60	90	10%	n/a	60	60	1200	
	TW-FS120	120	10%	n/a	120	120	1200	
	TW-FS300	175	10%	n/a	300	300	1125	
401 to 600	TW-FS60-X	120	10%	n/a	60	60	1200	4 No. Standard brackets* per length at 300mm nominal centres, brackets to be mechanically fixed to structure
	TW-FS120-X	175	10%	n/a	120	120	1125	
601 to 1200	TW-FS60-SB	120	n/a	60	60	60	1200	3 No. Structural brackets* per length at 400mm nominal centres, brackets to be mechanically fixed to structure
	TW-FS120-SB	175	n/a	60	120	120	1125	

- The masonry/concrete wall shall be of a thickness at least equal to that of the relevant seal and shall be capable of providing adequate support to the seal for the required period of fire resistance. The wall shall have a fire resistance of at least that required for the seal in terms of BS 476: Part 21 or 22: 1987.
- The floor slab shall be of a thickness at least equal to that of the relevant seal and shall be capable of providing adequate support to the seal for the required period of fire resistance. The floor shall have a fire resistance of at least that required for the seal in terms of BS 476: Part 21.

Lamatherm TW Cavity Barriers and Fire Stops – BS 476: Part 20

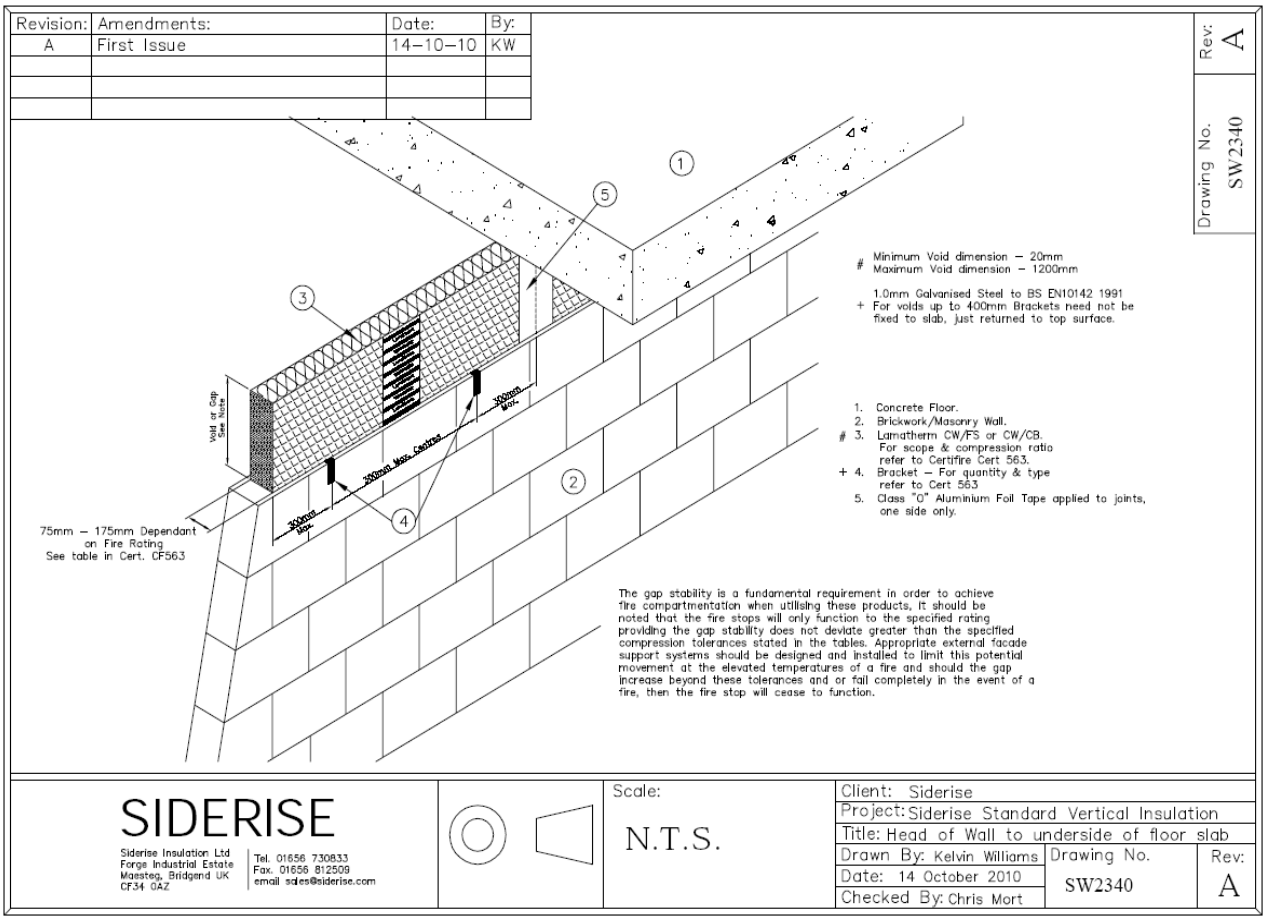
Bracket reference	Gap width range (mm)
B65/110	50-150
B195	151-240
B355	241-400
B600	601-900
B900	901-1200

*** B355 up to 600mm as per Table 7**

Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019

Lamatherm TW Cavity Barriers and Fire Stops – BS 476: Part 20

Typical installation detail for the Head of concrete/masonry wall to underside of floor slab applications detailed in Table 7.



Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019

Lamatherm 'CW-FS' Firestops (BS EN 1364-4 in Compliance with ETAG 026 GUIDLINE FOR EUROPEAN TECHNICAL APPROVAL of Firestopping and Fire Sealing Products Part 3 Linear Joint and Gap Seals – Annex D):

Table 8 – Floor slab to external façade assembly applications						
Gap Height (mm)	**Product**	**Seal Height x Thickness (mm)**	**Performance to BS EN 1364-4**		**Cover Length (mm)**	**Bracket Requirement**
			Integrity (mins)	**Insulation (mins)**		
20 to 50	CW-FS120	Gap + 10 x 120	120	120	1200	No brackets required
	CW-FS180	Gap + 10 x 150	210	210	1200	
51 to 150	CW-FS120	Gap + 10 x 120	120	120	1200	2No. Standard B65/110 brackets per length at 600 mm nominal centres mechanically fixed to the structure
	CW-FS180	Gap + 10 x 150	210	210	1200	
151 to 250	CW-FS120	Gap + 10 x 120	120	120	1200	2No. Standard B195 brackets per length at 600 mm nominal centres mechanically fixed to the structure
	CW-FS180	Gap + 10 x 150	210	210	1200	

- The floor slab shall be of a thickness at least equal to that of the relevant seal and shall be capable of providing adequate support to the seal for the required period of fire resistance. The floor shall have a fire resistance of at least that required for the seal.

- External aluminium facade system of typical facade construction shall incorporate infill panels of one of the following, with mineral stone wool minimum 60Kg backing the infill see drawing SW2914

  i.) Mineral fibre core composite panel having steel or aluminium facings*
  ii.) Standard toughened double glazed unit

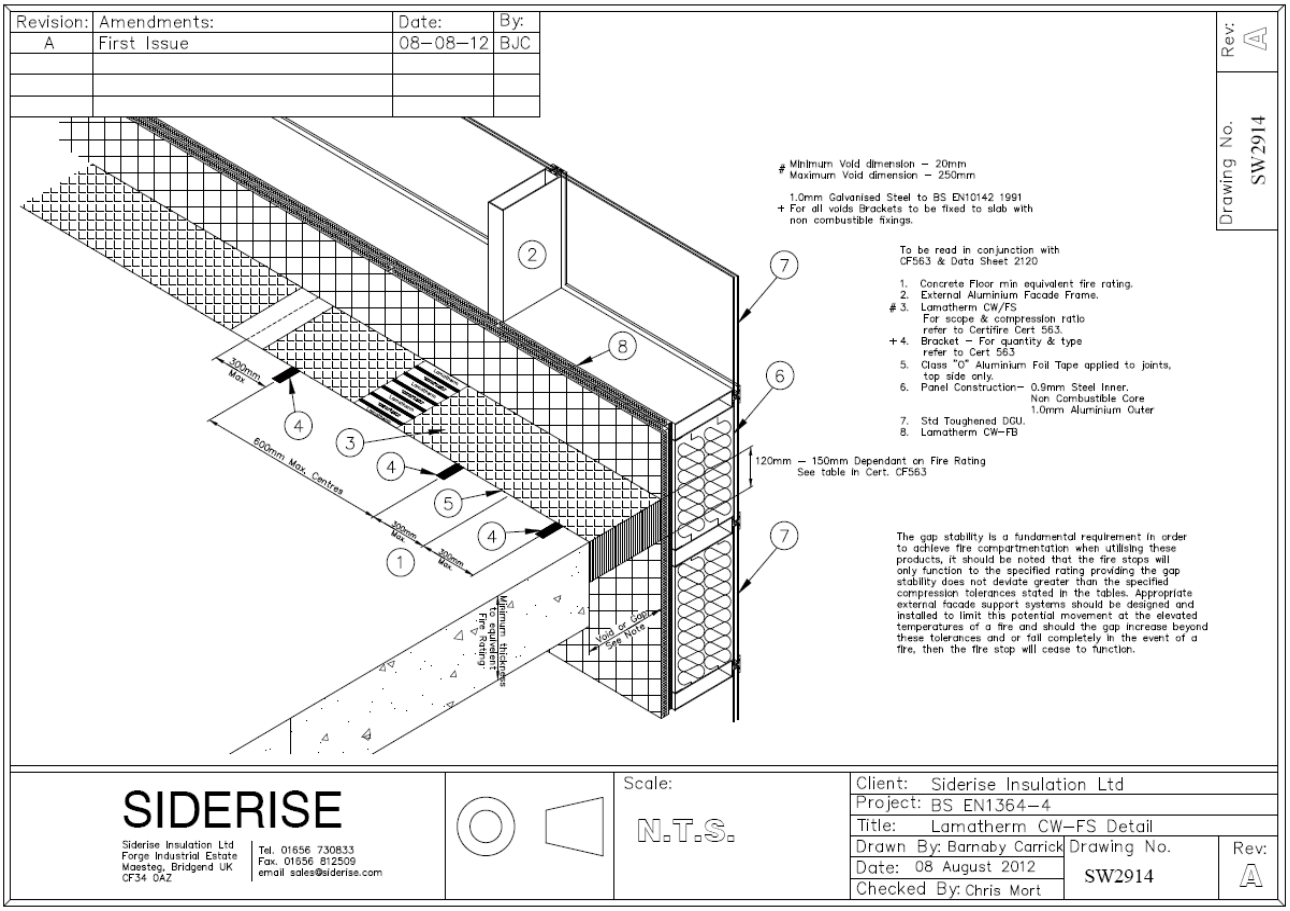
- External aluminium façade system to be additionally protected on internal surface by Lamatherm CW-FB as detailed in drawing SW2914

*The insulation performance of the panel should only be assumed to be satisfied on the unexposed surface of the seal. Due to the highly conductive nature of metallic facings, it cannot be assumed that the surface temperature of these facings will also satisfy the insulation performance criteria. Evidence of the panel's ability to satisfy the insulation criteria in this specific application should be sought from the panel manufacturer if an insulation performance is required from the panel construction.

Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019

Lamatherm 'CW-FS' Firestops (BS EN 1364-4 in Compliance with ETAG 026 GUIDLINE FOR EUROPEAN TECHNICAL APPROVAL of Firestopping and Fire Sealing Products Part 3 Linear Joint and Gap Seals – Annex D):

Typical installation detail for the Floor slab to external façade assembly applications detailed in Table 8.



Issued: 25th February 2008
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Lamatherm CW, EW & TW Cavity Barriers and Fire Stops

Installation and fixing

The products are supplied either pre-cut or in sheet form to allow site cutting. Care shall be taken to ensure that the required over sizing of the cavity barriers and firestops given in the tables is strictly observed.

Unless otherwise indicated the seals shall be correctly supported by steel brackets supplied by the manufacturer in compliance with the required bracket type and frequency detailed in the tables. Brackets shall be pushed into the seal such that it is impaled at mid-thickness, with one leg extending to nominally 75% of the gap width. The other leg of each bracket is returned onto the top face of a concrete floor or onto one face of a wall. For gap widths up to 400 mm brackets are to be fixed to wall or floor by suitable Fire Rated fixing suitable all-steel expanding anchor. For all the other situations each bracket is fastened to the wall or floor with an all-steel expanding anchor.

Jointing

The joints between the lengths of slab (with the exception of FS300) shall be straight butt joints and shall be fitted in slight compression so that they are tight. RFT20/45 self-adhesive reinforced aluminium foil tape shall be applied over the joints.

All FS300 applications requiring greater than 120 minute performances shall be provided with a rebated lap joint at mid-depth having an overlap of 75 mm.

Gap Stability

The gap stability is a fundamental requirement in order to achieve fire compartmentation when utilising these products and it should be noted that the fire stops will only function to the specified rating providing the gap stability does not deviate greater than the specified compression tolerances stated in the tables. Appropriate external façade support systems should be designed and installed to limit this potential movement at the elevated temperatures of a fire and, should the gap increase beyond these tolerances and or fail completely in the event of a fire, then the fire stop will cease to function.

The approval relates to on going production. Products and/or their immediate packaging are identified with the manufacturer's name, the product name or number, the CERTIFIRE name or name and mark, together with the CERTIFIRE certificate number (i.e. No. CF 563) and application where appropriate.

Further Information

Further information regarding the details contained in this certificate may be obtained from Siderise Insulation Limited (Tel: 01656 730833).

Further information regarding CERTIFIRE certification and other approved products can be obtained from CERTIFIRE (Tel: 01925 646777).

Issued: 25th February 2008
Revised: 6th November 2018
Valid to: 5th February 2019