eekowall

Time for Change

April 2022

www.eekowall.co.uk

eekowall

Contents

Introduction

Why eekowall?

eekowall is the most advanced drylining system available. Incredibly lightweight, the panels are designed to achieve the highest levels of fire, acoustic and stability performance, with virtually no waste materials produced on site. With sophisticated technology, eekowall delivers a high-end experience, minimising noise in every environment.

Performance Design
We will take your partition and lining layout drawings and provide a full eekowall panel design to match your project performance requirements. We can supply our panels directly to you to install or we can supply and install them for you.

No Unfixed Contact
The deflection head details have been designed to avoid any unfixed contact between metal components, removing the risk of "Creaking Building Syndrome" from the partition heads. Ideal for high rise buildings such as offices, hospitals or apartments.

Fast Installation
eekowall can be installed extremely quickly. Panels are constructed and delivered to site in the order they are required to be installed. Door and service openings are predetermined and formed within the panel design. The speed of eekowall system construction means M&E service installation can follow at pace, with final wall and ceiling linings and finishes being applied immediately after.

Ready for First Fix
eekowall wireways are installed within the panel cavity to accommodate cable and socket installation. Likewise, non-combustible steel noggins are pre-installed to the panel cavity to facilitate the fixing of services and fitted furniture.

Controlled Construction
All our fire-rated partitions and linings are constructed under controlled conditions, with no risk of mixed brand materials being introduced to fire-rated systems during the construction phase.

No Extra Finishing
eekowall party wall systems can achieve their fire and acoustic performances without finishing products being applied. Meaning pods can be positioned to one side without the need to access the wall to apply "fire tape".

Quality Controlled
Manufactured off-site within strict QA procedures. Partition framing and fixings are pre-checked at the factory and guaranteed to be right.

Certified Non-Combustible
eekowall systems have been certified as non-combustible by Warrington Fire.

Please contact **technical@eekowall.com** for further details on other systems available.

Installation Videos

Installation Demo

Installation Guide

Socket Installation Guide

Choosing the Right System

Economical
eekowall streamlines the project process and can deliver overall project cost savings, depending on the application.

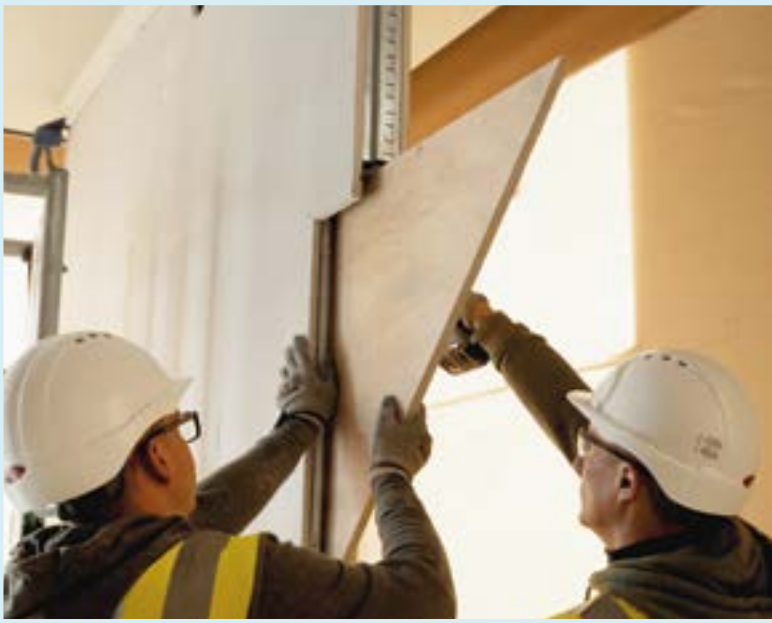
Sustainable
Virtually no waste is created by eekowall on site and any waste that is generated will be recyclable.

Fast
Straightforward delivery to your site with panels in the installation order to ensure your project stays on track.

Quiet
High acoustic performance that creates comfortable living and working environments.

Lightweight
The most lightweight system on the market, while delivering high levels of fire, acoustic and stability performance.

Efficient
eekowall installation works in parallel with M&E to maximise efficiency and trade time on site.



eekowall Panels

Choose our advanced dry lining system for your next project. eekowall panels are lightweight, high performance and quick to install with their lightweight construction, making them easy to transport around the site and install with minimal personnel required.

Our systems offer varying solutions for different widths and heights to meet both fire safety and acoustic performance requirements. MEP builders' works are formed in off-site panels to increase installation speed. Pre-installed wireways are fitted within the panels to allow for sockets and switches to be quickly and easily installed on site and are located to mm tolerances.

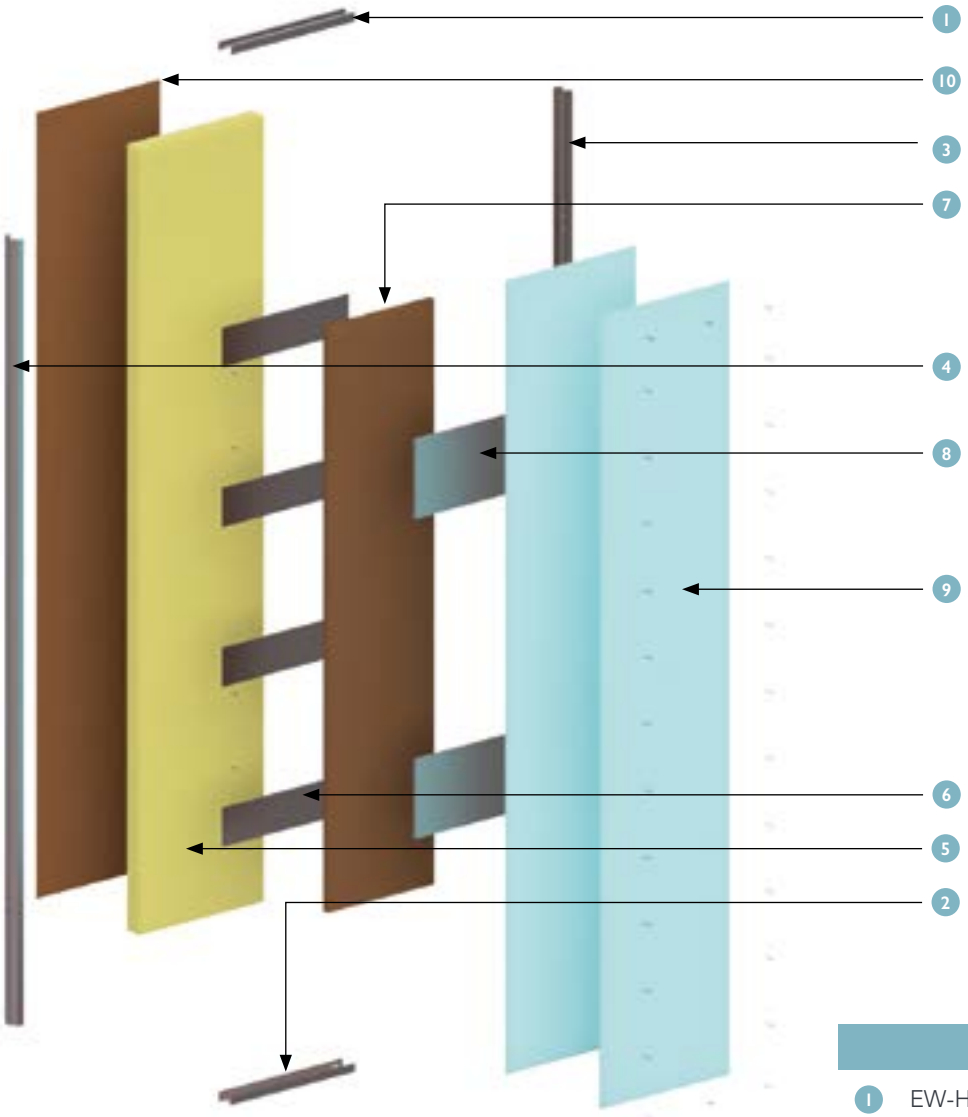
Party Walls
EW-250/120

Internal Walls
EW100/30 & EW100/60

Shaft Walls
EW110/120

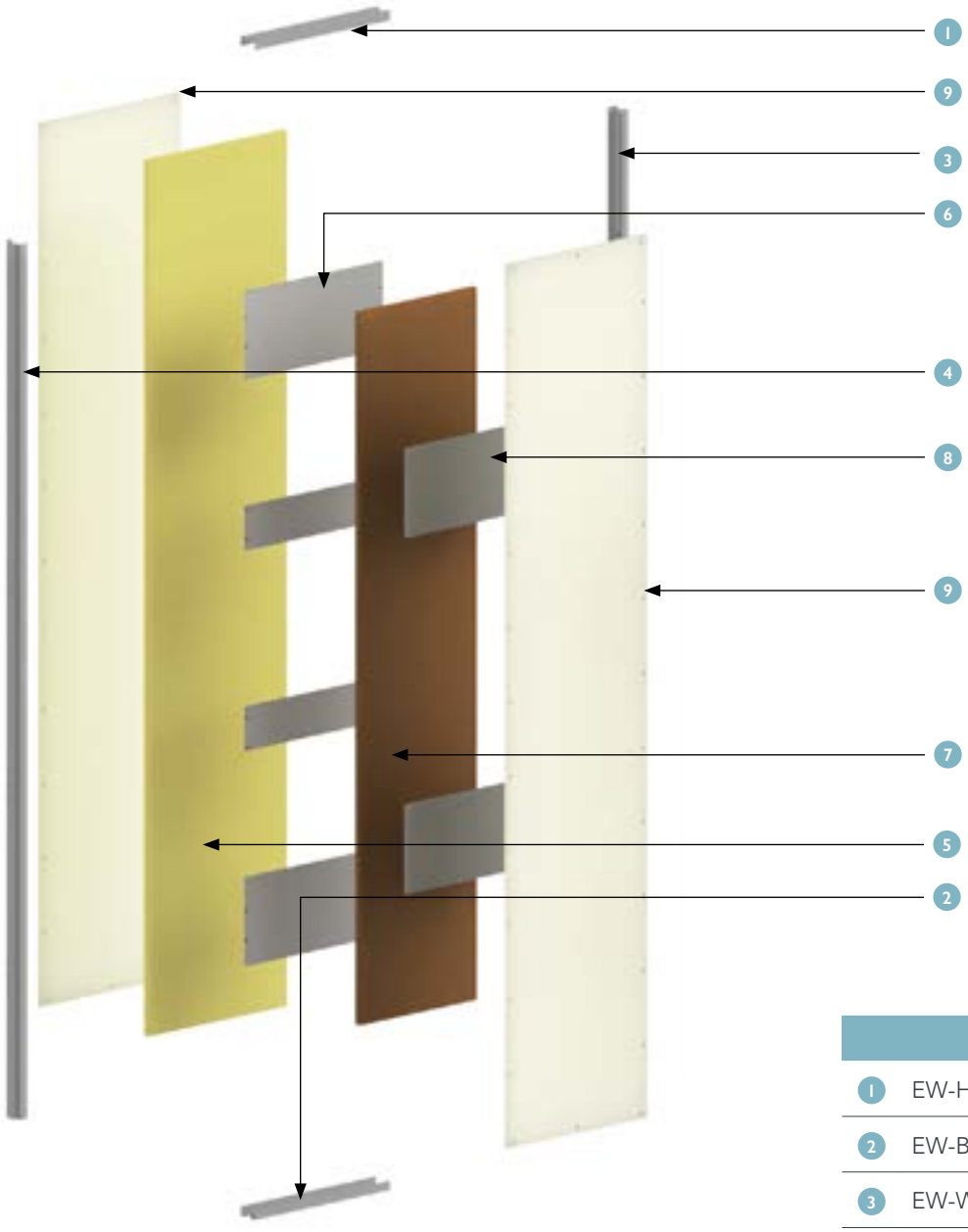
System Reference	Overall Width (mm)	Fire Performance (mins)	Acoustic Performance (dB R_w)	Maximum Height (mm)
EW250/120	250mm	120 mins	64dB R_w	3200mm
EW100/60	100mm	60 mins	50dB R_w	3200mm
EW100/30	100mm	30 mins	45dB R_w	3200mm
EW100/120	100mm	120 mins	47dB R_w	3200mm

Exploded Panel View



Key	
1	EW-HT70 Head Track
2	EW-BT70 Base Track
3	EW-W70 Stud
4	EW-T70 Stud
5	Rockwool Insulation
6	Wireway Supports
7	EW-WW Wireway
8	Pattresses
9	2x 15mm Plasterboard
10	Backing Wall

Exploded Panel View



Key	
1	EW-HT70 Head Track
2	EW-BT70 Base Track
3	EW-W70 Stud
4	EW-T70 Stud
5	Rockwool Insulation
6	Wireway Supports
7	EW-WW Wireway
8	Pattresses
9	2x Plasterboard

eekowall

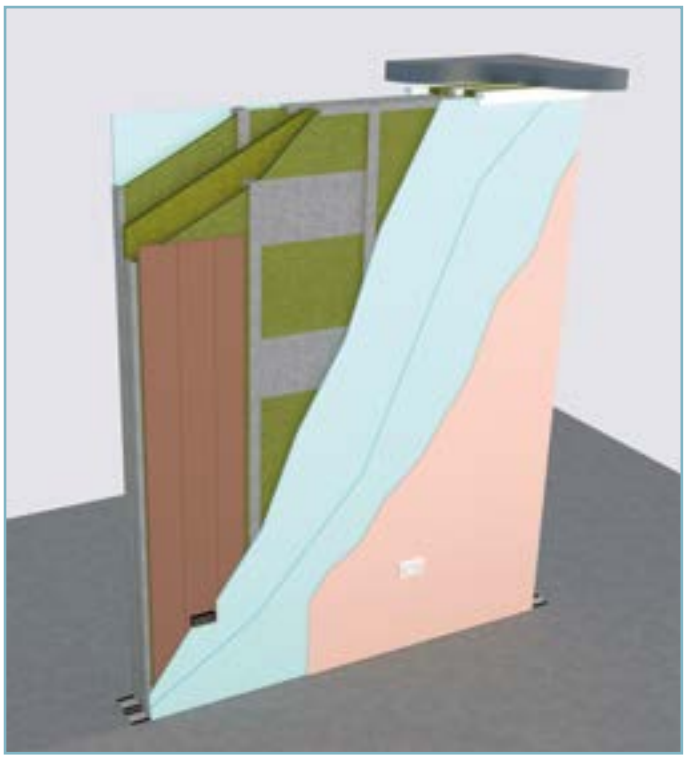
Party Walls

Introduction

The eeko-Party wall system is constructed from twin eekowall panels. The twinframe construction does not require bracing, which ensures optimum acoustic performance is maintained. Even with no finishes applied, 120 minutes fire rating can be achieved to satisfy the Building Regulations for high-rise buildings.

Systems

System Reference	Wall Thickness (mm)	Fire (Minutes)	Acoustics (Rw dB)	Duty Rating	Weight (kg/m²)
EW-POD-250/90	250	90	64 (57)	Severe	60
EW-PW-250/120	250	120	64 (58)	Severe	60



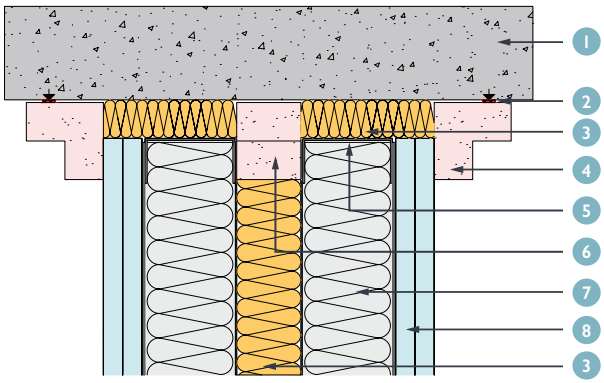
Party Walls Installation Guide

- The eekowall Panels are numbered, stacked and delivered in the order they will be required for installation
- The partition positions are set out on the floor and soffit as per construction and system design drawings
- EW-FR Mastic is applied to the soffit side of an EW-DP60/60 Angle
- The EW-DP60/60 Angle is suitably secured to the soffit at maximum 600mm centres*
- EW-FG70 Floor Guide is suitably secured to the floor with two rows of fixings at maximum 600mm centres, staggered by 300mm*
- Two beads of EW-FRA Adhesive are applied to an EW-WG70 Wall Guide
- The EW-WG70 Wall Guide is suitably secured to the abutting walls with two rows of fixings at maximum 600mm centres, staggered by 300mm*
- Where possible, the installation of eekowall Panels should commence against partitions, and be finished at exterior / masonry walls
- The EW-FG70 Floor Guide is swept immediately prior to installing the first eekowall Panel to remove any dust or loose particles
- A bead of EW-FR Mastic is applied to the EW- WG70 Wall Guide
- The first eekowall Panel is installed and lightly tapped into position against the EW-WG70 Wall Guide (ensure the plasterboard side is fitted against the EW-DP60/60 Angle)
- The first eekowall Panel is checked for plumb
- Where the abutting wall is <10mm from plumb, any gaps can be filled with a gypsum-based filler
- Where the abutting wall is >10mm from plumb, a bespoke eekowall Panel will be constructed on site
- A bead of EW-FR Mastic is applied to the exposed edge of the installed eekowall Panel
- Additional eekowall Panels are installed in order as shown on the system design drawings
- The heads of the eekowall Panels can be temporarily clamped to the EW-DP60/60 Angle as required
- RW3 Insulation (sized to the panel thickness) is installed above the eekowall Panels as installation progresses
- After three eekowall Panels are installed, the panels are retained with an EW-DP50/60 Packer suitably secured to the soffit at maximum 600mm centres*
- The Party Wall cavity is insulated as per specification. The insulation is retained with EW-RS Retaining Strap fixed to the inside of the first set of eekowall Panels
- The second side of the Party Wall is installed as the first side progresses and once the EW-DP50/60 Packer and cavity insulation have been installed
- After three eekowall Panels are installed, the panels are retained with an EW-DP50/60 Angle suitably secured to the soffit at maximum 600mm centres*
- The final eekowall Panels are constructed on site against the abutting wall
- Door openings are formed from two L-shaped EW-DP Door Panels, with additional EW-DHP Door Head Panels for wide openings
- The first L-shaped EW-DP Door Panel is installed, with a brace to support the EW-DHP Door Head Panels where required
- Once the final EW-DP Door Panel is installed, the door head is reinforced with a full width section of EW-FG70 Floor Guide
- EW-FC70 Floor Cleats are installed to the base of the door jambs to secure the door opening. (These are covered by the door lining / frame)
- The plasterboards to EW-DP Door Panels and EW-DHP Door Head Panels are left oversized, so Z joints can be formed when the reveals are boarded
- Service opening positions are pre-determined and formed. A 3/4 height eekowall Panel is installed, with an EW-SP Service Panel above
- The service opening reveals are then boarded, with Z joints formed at the external corners
- Where bathroom pods are being installed, the first pod can be positioned ahead of the party wall installation, as the system can achieve its fire and acoustic performance without the need to apply “fire tape”. This also allows the second pod to be positioned without delay

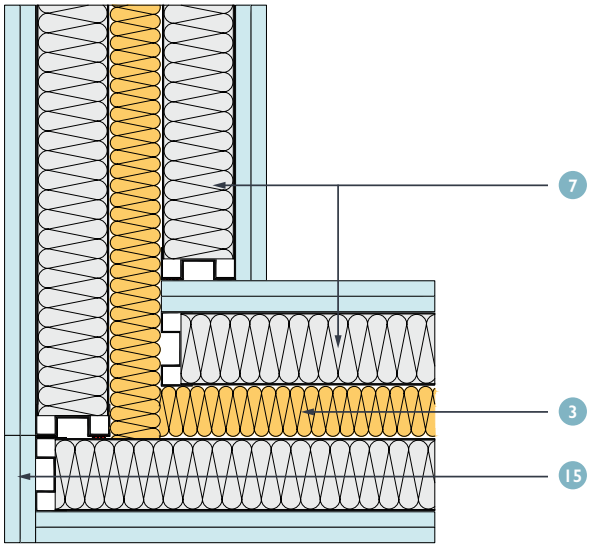
**The first and last fixings should be installed within 50mm of frame ends*

Typical Details

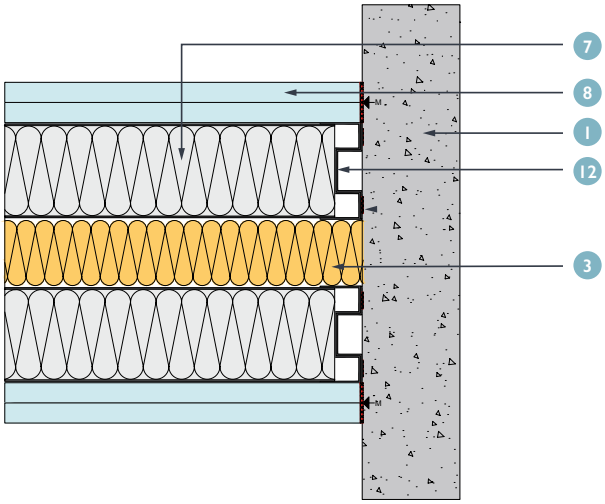
EW-PW 250/120 Head Detail



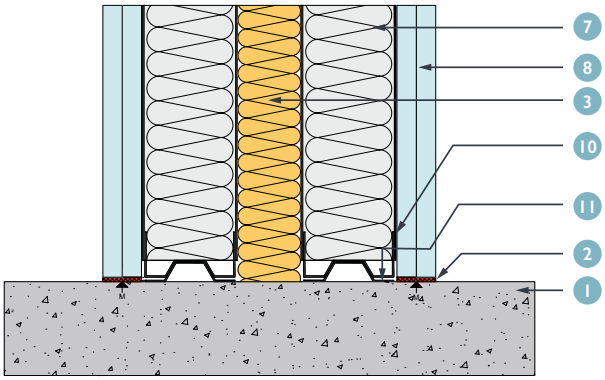
EW-PW 250/120 Corner Detail



EW-PW 250/120 Abutment Detail



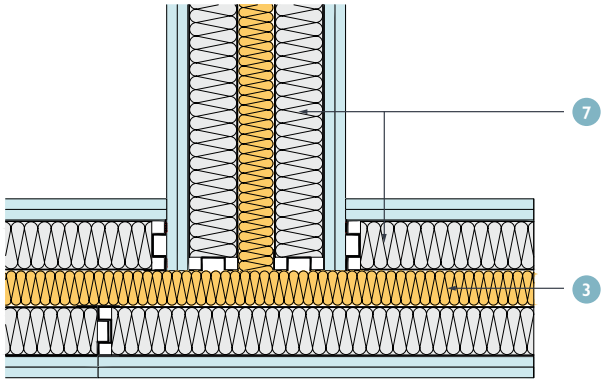
EW-PW 250/120 Base Detail



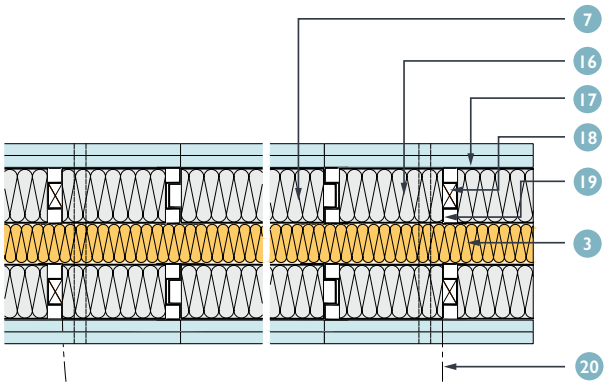
Key	
1	Substrate (by others)
2	EW FR Mastic
3	Rockwool RW3 (Nominal 60kg/m^3)
4	EW DP 50/60
5	EW HT 70
6	EW DP 50/60
7	EW 250/120 Party Wall Panel fully filled with Isover Acoustic Partition Roll
8	2 x 15mm Plasterboard (min. 12.6kg/m^2)
9	60x60x1.2mm Steel Angle
10	EW BT 70
11	EW Floor Guide
12	EW W70 Stud

Typical Details

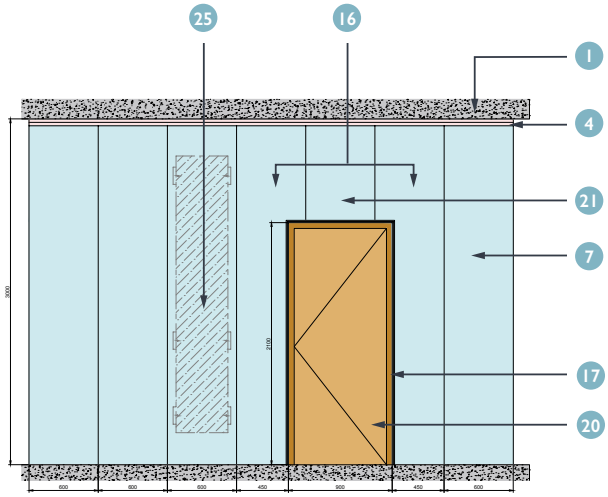
EW-PW 250/120 Tee Detail



EW-PW 250/120 Door Detail



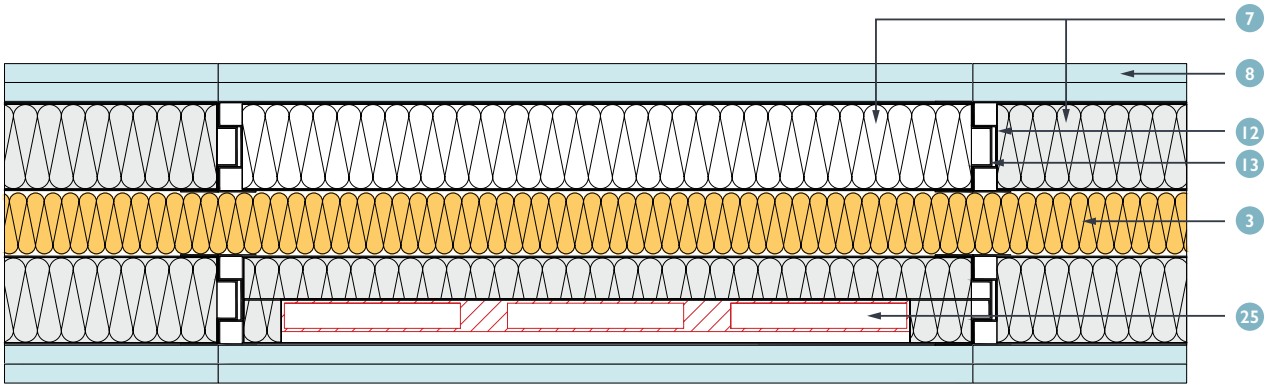
EW-PW 250/120 Door Elevation



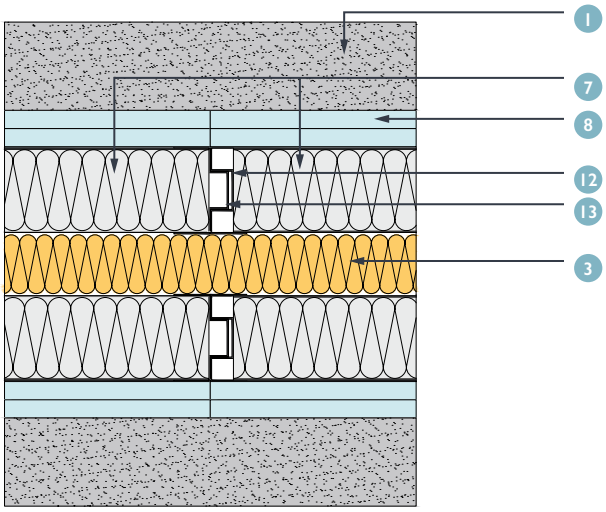
Key	
1	Substrate (by others)
3	Rockwool RW3 (Nominal 60kg/m^3)
4	EW DP 50/60
7	EW 250/120 Party Wall Panel fully filled with Isover Acoustic Partition Roll
14	Panel Filled With Isover Acoustic Partition Roll @ 800mm c/c, Staggered Each Side And 1 Bead of Eekowall Adhesive Each Side
15	2 x 15mm Plasterboard (min 12.6kg/m^2) Wallboard Fixed To Expose End of Panel Filled With Isover Acoustic Partition Roll
16	EW 250/120 Party Wall Door Panel Fully Filled With Isover Acoustic Partition Roll
17	Door Opening Reveal Boards
18	Timber Ground To Pick Up Door Fixing
19	Door Jamb Stud Within Panel Filled With Isover Acoustic Partition Roll
20	Door (Indicative Line)
21	EW 250/120 Party Wall Door Panel Infill
25	EW 250/120 Party Wall Panel c/w pre-manufactured Cardboard Wireway Fully Filled With Isover Acoustic Partition Roll

Typical Details

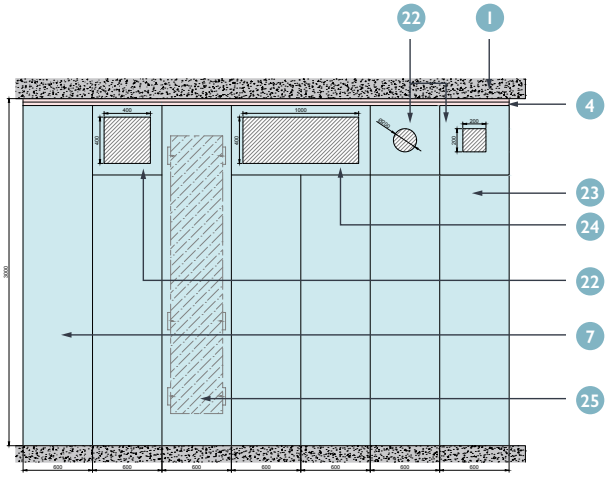
EW-PW 250/120 Typical Detail with Wireway



EW-PW 250/120 Typical Detail



EW-PW 250/120 BWIC Elevation



Key	
1	Substrate (by others)
3	Rockwool RW3 (Nominal 60kg/m^3)
4	EW DP 50/60
7	EW 250/120 Party Wall Panel fully filled with Isover Acoustic Partition Roll
8	2 x 15mm Plasterboard (min. 12.6kg/m^2)
12	EW W70 Stud
13	EW T70 Stud
22	Small Bespoke BWIC Panel
23	Reduced Height Panel
24	Large Bespoke BWIC Panel
25	EW 250/120 Party Wall Panel c/w pre-manufactured Cardboard Wireway Fully Filled With Isover Acoustic Partition Roll

System Performance Summary

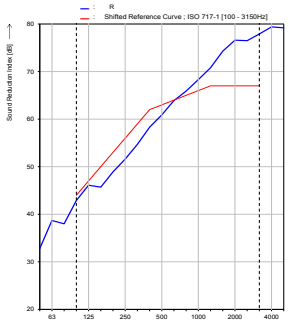
Partition Type:	Twinframe EW-WP eekowall Panels, 2 x 15mm Gyproc SoundBloc boards each side
Partition Width:	250mm
Maximum Height:	3200mm (L/240 @ 200Pa)
Section References:	EW-DP60/60 Angles / EW-DP50/60 Packers / EW-FG70 Floor Guides / EW-WG70 Wall Guides / EW-T70 Studs / EW-W70 Studs
Stud Centres:	600mm
Cavity Insulation:	2 x 75mm APR 1200 to the panel cavities / 1 x 50mm RW3 mineral wool between panels
Fire Resistance:	90 / 90 minutes (Integrity / Insulation) to BE EN 1364-1: 1999
Sound Reduction:	Rw 63 db (Rw+Ctr 57 dB) to BS EN ISO 10140-2:2010
Duty Rating:	Severe to BS 5234: Part 2: 1992

EW-POD-250/90
Fire: 90 / 90
Acoustics: Rw 63 (57)
Height: 3200mm
Duty: Severe

Report Ref:
EUI-21-000493
UOS-05401-5351
BRE-P120717-1001

Note; eekowall panels filled with 75mm APR insulation - (omitted for clarity)

Frequency f [Hz]	R ⅓ octave [dB]
50	32.8
63	38.7
80	38.0
100	42.9
125	46.1
160	45.7
200	48.9
250	51.6
315	54.7
400	58.3
500	60.9
630	63.9
800	65.9
1000	68.3
1250	70.8
1600	74.3
2000	76.6
2500	76.5
3150	77.9
4000	79.4
5000	79.2



Rating according to BS EN ISO 717-1
R_w (C;Ctr) = 63 (-1 ; -6) dB
Evaluation based on laboratory measurement results obtained in one-third-octave bands by an engineering method.

Construction Guidelines

- The first EW Head Angles are secured to the structure at 600mm centres
- EW Floor and Wall Guides are secured to the structure at 600mm centres and mastic sealed
- The first set of EW Panels are positioned and temporarily clamped were required
- The EW Head Packer is installed to retain the first set of EW Panels
- RW3 insulation is installed to the cavity
- The second set of EW Panels are positioned
- The second EW Head Angles are secured to the structure at 600mm centres to retain all EW Panels
- Door and service opening EW Panels are installed as works progress
- The Final EW Panel is constructed onsite against the abutting wall
- Finishes - Not Required

Partition Height: 3000mm	Classification: Severe Duty			
Summary of Tests for Grade Compliance				
Requirement Tested	Annex	Grade performance achieved: Pass / Fail		
		LD	MD	HD	SD
Stiffness	A				Pass
Surface damage by small hard body impact (straight partition)*	B				Pass
Surface damage by small hard body impact (return partition)*	B				Pass
Resistance to damage by impact from a large soft body impact (straight partition)	C				Pass
Resistance to damage by impact from a large soft body impact (return partition)	C				Pass
Perforation by small body impact (straight partition)	D				Pass
Perforation by small body impact (straight partition)	D				Pass
Resistance to structural damage by impact from a large soft body impact	E				Pass
Door slamming	F				Pass
Report No: BRE-P120717-1001	Grade Awarded: Severe Duty				
Construction Tested: Partition constructed with twinframe eekowall panels with 2 x 15mm acoustic wallboard each side. 4850mm long x 3000mm high as described above; one fixed end, (returned), and one fee end.					
Variation in Construction: N/A					
*As this is indicative (without pass or fail) the term "Pass" is shown against the appropriate level of performance. Sponsors and specifiers should ascertain if surface damage is acceptable					

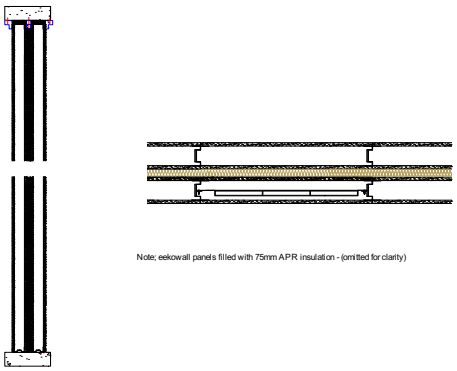
System performance is based on the results of tests conducted in accordance with BS 476 Part 22:1987 or EN1364-1:1999 (Fire), BS EN ISO 10140-2:2010 (Acoustic), BS 5234:1992 Part 2 (Structural integrity) using gypsum-based plasterboard as defined in BS EN 520:2004, A1:2009.

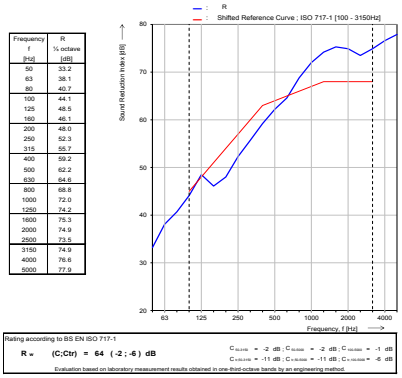
System Performance Summary

Partition Type:	Twinframe EW-WP eekowall Panels, 2 x 15mm Gyproc SoundBloc boards each side
Partition Width:	250mm
Maximum Height:	3200mm (L/240 @ 200Pa)
Section References:	EW-DP60/60 Angles / EW-DP50/60 Packers / EW-FG70 Floor Guides / EW-WG70 Wall Guides / EW-T70 Studs / EW-W70 Studs
Stud Centres:	600mm
Cavity Insulation:	2 x 75mm APR 1200 to the panel cavities / 1 x 50mm RW3 mineral wool between panels
Fire Resistance:	120 / 120 minutes (Integrity / Insulation) to BE EN 1364-1: 1999
Sound Reduction:	Rw 64 db (Rw+Ctr 58 dB) to BS EN ISO 10140-2:2010
Duty Rating:	Severe to BS 5234: Part 2: 1992

EW-PW-250/120
Fire: 120 / 120
Acoustics: Rw 64 (58)
Height: 3200mm
Duty: Severe

Report Ref:
CFR-2108181
UOS-05258-4757
BRE-P120717-1001





Construction Guidelines

- The first EW Head Angles are secured to the structure at 600mm centres
- EW Floor and Wall Guides are secured to the structure at 600mm centres and mastic sealed
- The first set of EW Panels are positioned and temporarily clamped were required
- The EW Head Packer is installed to retain the first set of EW Panels
- RW3 insulation is installed to the cavity
- The second set of EW Panels are positioned
- The second EW Head Angles are secured to the structure at 600mm centres to retain all EW Panels
- Door and service opening EW Panels are installed as works progress
- The Final EW Panel is constructed onsite against the abutting wall
- The EW Panel joints are tape reinforced and the required finishes are applied to the Panel surface

Partition Height: 3000mm	Classification: Severe Duty			
Summary of Tests for Grade Compliance				
Requirement Tested	Annex	Grade performance achieved: Pass / Fail		
		LD	MD	HD	SD
Stiffness	A				Pass
Surface damage by small hard body impact (straight partition)*	B				Pass
Surface damage by small hard body impact (return partition)*	B				Pass
Resistance to damage by impact from a large soft body impact (straight partition)	C				Pass
Resistance to damage by impact from a large soft body impact (return partition)	C				Pass
Perforation by small body impact (straight partition)	D				Pass
Perforation by small body impact (straight partition)	D				Pass
Resistance to structural damage by impact from a large soft body impact	E				Pass
Door slamming	F				Pass
Report No: BRE-P120717-1001	Grade Awarded: Severe Duty				
Construction Tested: Partition constructed with twinframe eekowall panels with 2 x 15mm acoustic wallboard each side. 4850mm long x 3000mm high as described above; one fixed end, (returned), and one fee end.					
Variation in Construction: N/A					
*As this is indicative (without pass or fail) the term "Pass" is shown against the appropriate level of performance. Sponsors and specifiers should ascertain if surface damage is acceptable					

System performance is based on the results of tests conducted in accordance with BS 476 Part 22:1987 or EN1364-1:1999 (Fire), BS EN ISO 10140-2:2010 (Acoustic), BS 5234:1992 Part 2 (Structural integrity) using gypsum-based plasterboard as defined in BS EN 520:2004, A1:2009.

eekowall

eekowall

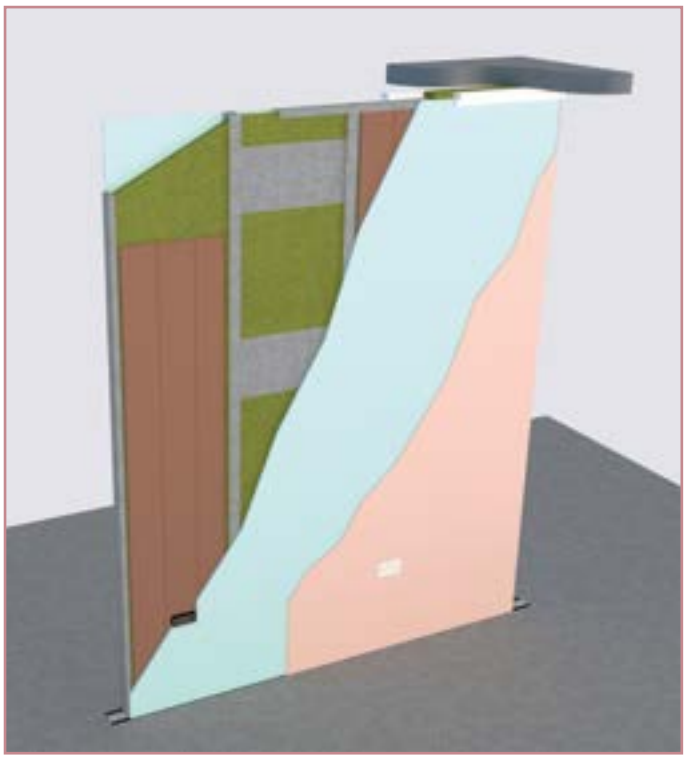
Internal Walls

Introduction

The eeko-Internal wall system is constructed from single eekowall panels. These partitions achieve industry-beating performances for fire and acoustics, built within a fraction of the time of standard partitions.

Systems

System Reference	Wall Thickness (mm)	Fire (Minutes)	Acoustics (Rw dB)	Duty Rating	Weight (kg/m²)
EW-IW-100/60	100	60	50	Heavy	29
EW-IW-100/30	100	30	45	Medium	25



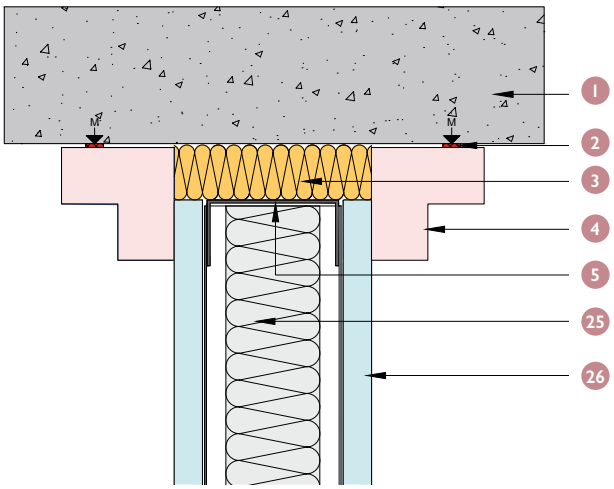
Internal Walls Installation Guide

- The eekowall Panels are numbered, stacked and delivered in the order they will be required for installation
- The partition positions are set out on the floor and soffit as per construction and system design drawings
- EW-FR Mastic is applied to the soffit side of an EW-DP50/60 Angle
- The EW-DP50/60 Angle is suitably secured to the soffit at maximum 600mm centres*
- EW-FG70 Floor Guide is suitably secured to the floor with two rows of fixings at maximum 600mm centres, staggered by 300mm*
- Two beads of EW-FRA Adhesive are applied to an EW-WG70 Wall Guide
- The EW-WG70 Wall Guide is suitably secured to the abutting walls with two rows of fixings at maximum 600mm centres, staggered by 300mm*
- Where possible, the installation of eekowall Panels should commence against partitions, and be finished at exterior / masonry walls
- The EW-FG70 Floor Guide is swept immediately prior to installing the first eekowall Panel to remove any dust or loose particles
- A bead of EW-FR Mastic is applied to the EW-WG70 Wall Guide
- The first eekowall Panel is installed and lightly tapped into position against the EW-WG70 Wall Guide
- The first eekowall Panel is checked for plumb
- Where the abutting wall is <10mm from plumb, any gaps can be filled with a gypsum-based filler
- Where the abutting wall is >10mm from plumb, a bespoke eekowall Panel will be constructed on site
- A bead of EW-FR Mastic is applied to the exposed edge of the installed eekowall Panel
- Additional eekowall Panels are installed in order as shown on the system design drawings
- The heads of the eekowall Panels can be temporarily clamped to the EW-DP60/60 Angle as required
- RW3 Insulation (sized to the panel thickness) is installed above the eekowall Panels as installation progresses
- After three eekowall Panels are installed, the panels are retained with an EW-DP50/60 Angle suitably secured to the soffit at maximum 600mm centres*
- The final eekowall Panel is constructed on site against the abutting wall
- Door openings are formed from two L-shaped EW-DP Door Panels, with additional EW-DHP Door Head Panels for wide openings
- The first L-shaped EW-DP Door Panel is installed, with a brace to support the EW-DHP Door Head Panels where required
- Once the final EW-DP Door Panel is installed, the door head is reinforced with a full width section of EW-FG70 Floor Guide
- EW-FC70 Floor Cleats are installed to the base of the door jambs to secure the door opening. (These are covered by the door lining / frame)
- The plasterboards to EW-DP Door Panels and EW-DHP Door Head Panels are left oversized, so they can be trimmed to size on site
- Service opening positions are pre-determined and formed. A 3/4 height eekowall Panel is installed, with an EW-SP Service Panel above
- The service opening reveals are then boarded, with Z joints formed at the external corners

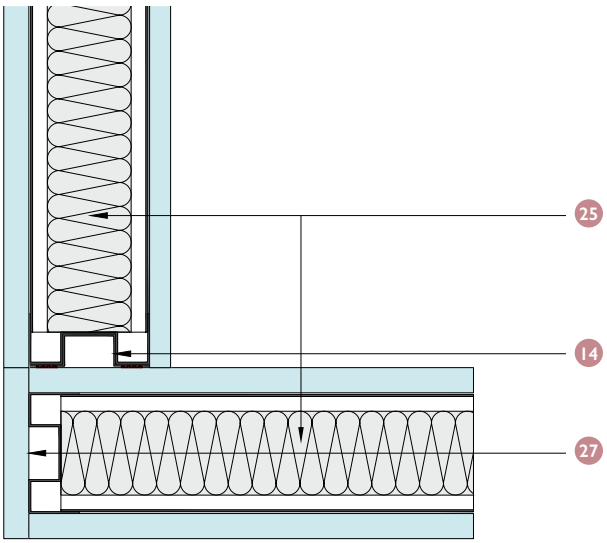
**The first and last fixings should be installed within 50mm of frame ends*

Typical Details

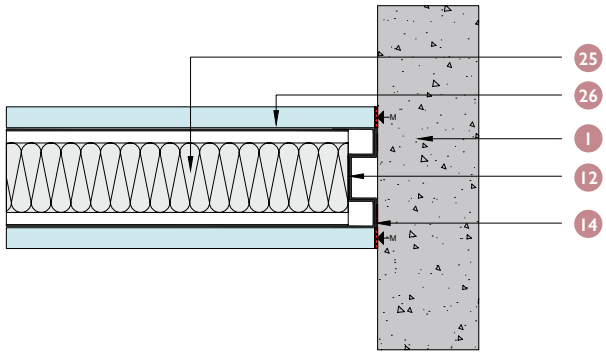
EW-IW 100/ Head Detail



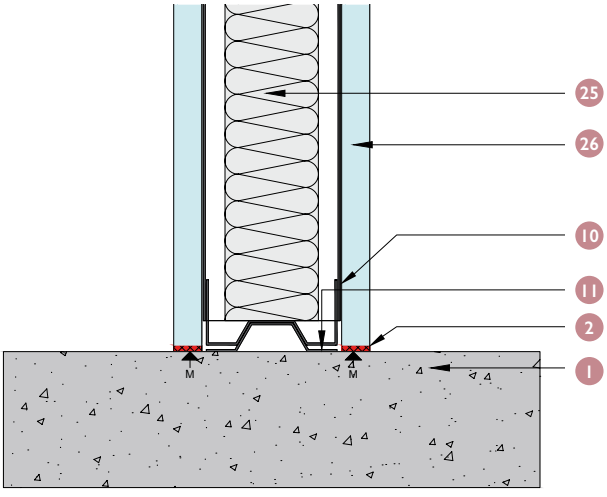
EW-IW 100/ Corner Detail



EW-IW 100/ Abutment Detail



EW-IW 100/ Base Detail

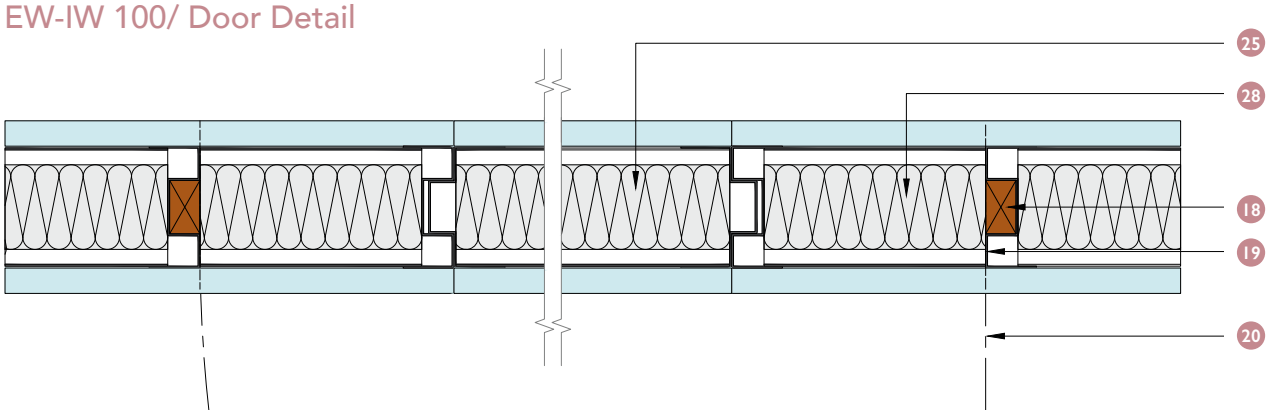


Key	
1	Substrate (by others)
2	EW FR Mastic
3	Rockwool RW3 (Nominal 60kg/m^3)
4	EW DP 60/60
5	EW HT 70
10	EW BT 70
11	EW Floor Guide
12	EW W70 Stud
14	Panel Filled With Isover Acoustic Partition Roll @ 800mm c/c, Staggered Each Side And 1 Bead of Eekowall Adhesive Each Side
25	EW 100/ Panel Filled with 50mm Isover Acoustic Partition Roll
26	1x Plasterboard
27	Rip of Plasterboard Wallboard fixed to expose end of Panel Filled with Isover Acoustic Partition Roll

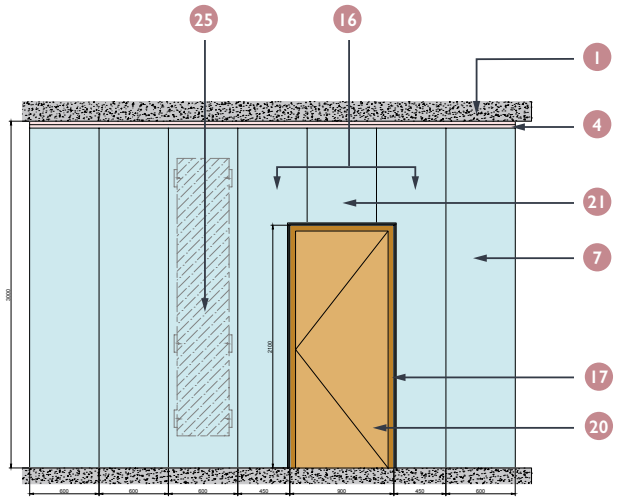
eekowall

Typical Details

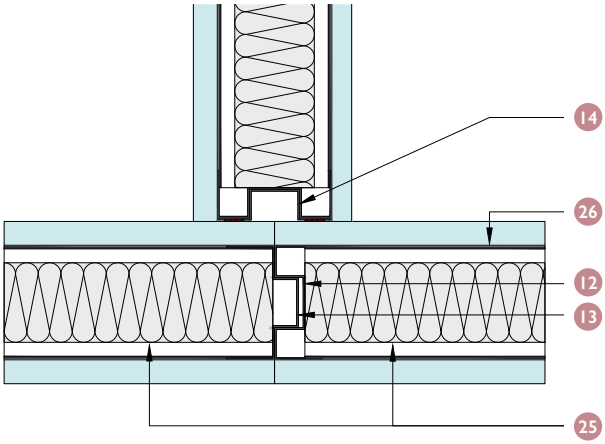
EW-IW 100/ Door Detail



EW-IW 100/ Door Elevation



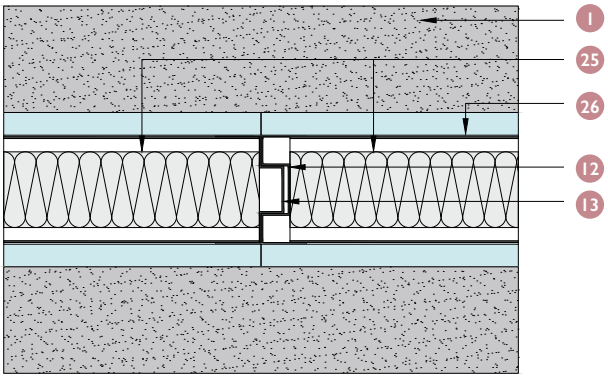
EW-IW 100/ Tee Detail



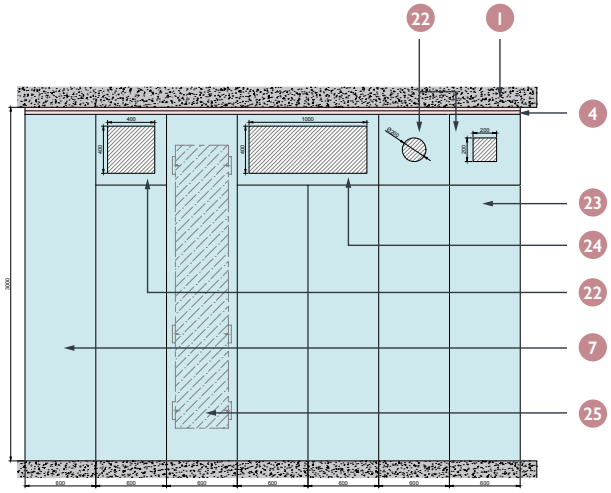
Key	
1	Substrate (by others)
4	EW DP 60/60
7	EW 100/ Internal Wall Panel Fully Filled With Isover Acoustic Partition Roll
12	EW W70 Stud
13	EW T70 Stud
14	Panel Filled With Isover Acoustic Partition Roll @ 800mm c/c, Staggered Each Side And 1 Bead of Eekowall Adhesive Each Side
16	EW 100/30 Internal Wall Door Panel Fully Filled With Isover Acoustic Partition Roll
17	Door Opening Reveal Boards
18	Timber Ground To Pick Up Door Fixing
19	Door Jamb Stud Within Panel Filled With Isover Acoustic Partition Roll
20	Door (Indicative Line)
21	EW 100/ Internal Wall Door Panel Infill
25	EW 100/ Panel Filled with 50mm Isover Acoustic Partition Roll
26	1x Plasterboard
28	EW 100/ Door Panel Filled with 50mm Isover Acoustic Partition Roll

Typical Details

EW-IW 100/ Typical Detail



EW-IW 100/ BWIC Elevation



Key	
1	Substrate (by others)
4	EW DP 60/60
7	EW 100/ Internal Wall Panel Fully Filled With Isover Acoustic Partition Roll
12	EW W70 Stud
13	EW T70 Stud
22	Small Bespoke BWIC Panel
23	Reduced Height Panel
24	Large Bespoke BWIC Panel
25	EW 100/ Panel Filled with 50mm Isover Acoustic Partition Roll
29	1x Plasterboard

System Performance Summary

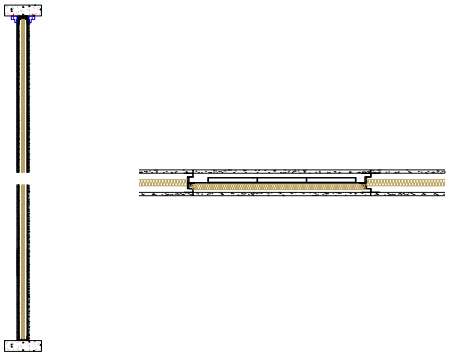
Partition Type:	Singleframe EW-WP eekowall Panels, 1 x 15mm Gyproc SoundBloc board each side
Partition Width:	100mm
Maximum Height:	3200mm (L/240 @ 200Pa)
Section References:	EW-DP60/60 Angles / EW-FG70 Floor Guides / EW-WG70 Wall Guides / EW-T70 Studs / EW-W70 Studs
Stud Centres:	600mm
Cavity Insulation:	75mm APR 1200 to the panel cavities
Fire Resistance:	60 / 60 minutes (Integrity / Insulation) to BE EN 1364-1: 1999
Sound Reduction:	Rw 41 db to BS EN ISO 10140-2:2010
Duty Rating:	Medium to BS 5234: Part 2: 1992

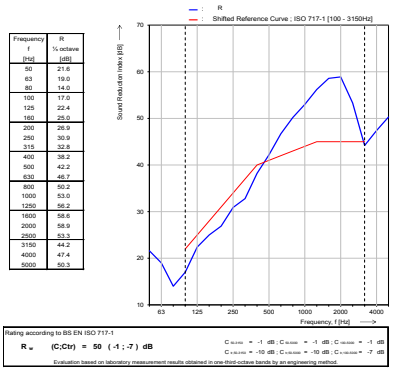
EW-IW-100/60

Fire: 60 / 60
Acoustics: Rw 50
Height: 3200mm
Duty: Medium

Report Ref:

EUI-21-B-000143-B
UOS-05258-4763
BRE-P120717-1000





Frequency f [Hz]	R ⅓ octave [dB]
50	21.6
63	19.0
80	14.0
100	17.0
125	22.4
160	25.0
200	26.9
250	30.9
315	32.8
400	38.2
500	42.2
630	46.7
800	50.2
1000	53.0
1250	56.2
1600	58.6
2000	58.9
2500	53.3
3150	44.2
4000	47.4
5000	50.3

Construction Guidelines

- The first EW Head Angles are secured to the structure at 600mm centres
- EW Floor and Wall Guides are secured to the structure at 600mm centres and mastic sealed
- The EW Panels are positioned and temporarily clamped were required
- The second EW Head Angles are secured to the structure at 600mm centres to retain all EW Panels
- Door and service opening EW Panels are installed as works progress
- The Final EW Panel is constructed onsite against the abutting wall
- The EW Panel joints are tape reinforced and the required finishes are applied to the Panel surface

Partition Height: 3000mm	Classification: Medium Duty				
Summary of Tests for Grade Compliance					
Requirement Tested	Annex	Grade performance achieved: Pass / Fail			
		LD	MD	HD	SD
Stiffness	A			Pass	
Surface damage by small hard body impact (straight partition)*	B			Pass	
Surface damage by small hard body impact (return partition)*	B			Pass	
Resistance to damage by impact from a large soft body impact (straight partition)	C		Pass		
Resistance to damage by impact from a large soft body impact (return partition)	C		Pass		
Perforation by small body impact (straight partition)	D			Pass	
Perforation by small body impact (straight partition)	D			Pass	
Resistance to structural damage by impact from a large soft body impact	E		Pass		
Door slamming	F		Pass		
Report No: BRE-P120717-1000	Grade Awarded: Medium Duty				
Construction Tested: Partition constructed with twinframe eekowall panels with 1 x 12.5mm wallboard each side. 4850mm long x 3000mm high as described above; one fixed end (returned) and one fee end.					
Variation in Construction: N/A					
*As this is indicative (without pass or fail) the term "Pass" is shown against the appropriate level of performance. Sponsors and specifiers should ascertain if surface damage is acceptable					

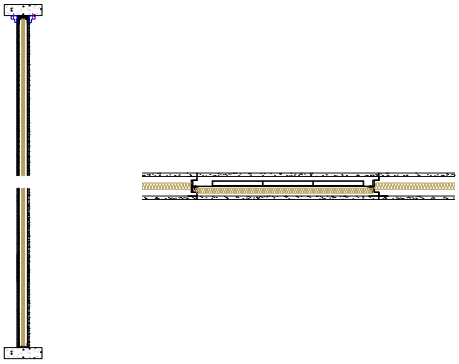
System performance is based on the results of tests conducted in accordance with BS 476 Part 22:1987 or EN1364-1:1999 (Fire), BS EN ISO 10140-2:2010 (Acoustic), BS 5234:1992 Part 2 (Structural integrity) using gypsum-based plasterboard as defined in BS EN 520:2004, A1:2009.

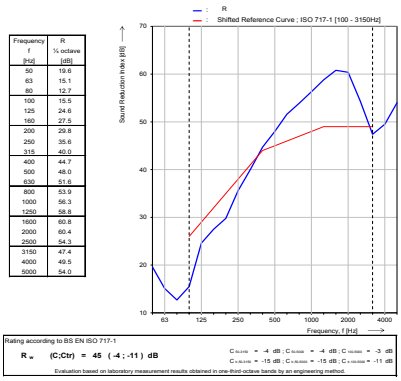
System Performance Summary

Partition Type:	Singleframe EW-WP eekowall Panels, 1 x 12.5mm Gyproc Wallboard each side
Partition Width:	95mm
Maximum Height:	3200mm (L/240 @ 200Pa)
Section References:	EW-DP60/60 Angles / EW-FG70 Floor Guides / EW-WG70 Wall Guides / EW-T70 Studs / EW-W70 Studs
Stud Centres:	600mm
Cavity Insulation:	25mm APR 1200 to the panel cavities
Fire Resistance:	30 / 30 minutes (Integrity / Insulation) to BE EN 1364-1: 1999
Sound Reduction:	Rw 45 db to BS EN ISO 10140-2:2010
Duty Rating:	Medium to BS 5234: Part 2: 1992

EW-IW-100/30
Fire: 30 / 30
Acoustics: Rw 45
Height: 3200mm
Duty: Medium

Report Ref:
WF-437608/R
UOS-05258-4758
BRE-P120717-1000





Construction Guidelines

- The first EW Head Angles are secured to the structure at 600mm centres
- EW Floor and Wall Guides are secured to the structure at 600mm centres and mastic sealed
- The EW Panels are positioned and temporarily clamped were required
- The second EW Head Angles are secured to the structure at 600mm centres to retain all EW Panels
- Door and service opening EW Panels are installed as works progress
- The Final EW Panel is constructed onsite against the abutting wall
- The EW Panel joints are tape reinforced and the required finishes are applied to the Panel surface

Partition Height: 3000mm	Classification: Medium Duty				
Summary of Tests for Grade Compliance					
Requirement Tested	Annex	Grade performance achieved: Pass / Fail			
		LD	MD	HD	SD
Stiffness	A			Pass	
Surface damage by small hard body impact (straight partition)*	B			Pass	
Surface damage by small hard body impact (return partition)*	B			Pass	
Resistance to damage by impact from a large soft body impact (straight partition)	C		Pass		
Resistance to damage by impact from a large soft body impact (return partition)	C		Pass		
Perforation by small body impact (straight partition)	D			Pass	
Perforation by small body impact (straight partition)	D			Pass	
Resistance to structural damage by impact from a large soft body impact	E		Pass		
Door slamming	F		Pass		
Report No: BRE-P120717-1000	Grade Awarded: Medium Duty				
Construction Tested: Partition constructed with twinframe eekowall panels with 1 x 12.5mm wallboard each side. 4850mm long x 3000mm high as described above; one fixed end (returned) and one fee end.					
Variation in Construction: N/A					
*As this is indicative (without pass or fail) the term "Pass" is shown against the appropriate level of performance. Sponsors and specifiers should ascertain if surface damage is acceptable					

System performance is based on the results of tests conducted in accordance with BS 476 Part 22:1987 or EN1364-1:1999 (Fire), BS EN ISO 10140-2:2010 (Acoustic), BS 5234:1992 Part 2 (Structural integrity) using gypsum-based plasterboard as defined in BS EN 520:2004, A1:2009.

eekowall

eekowall

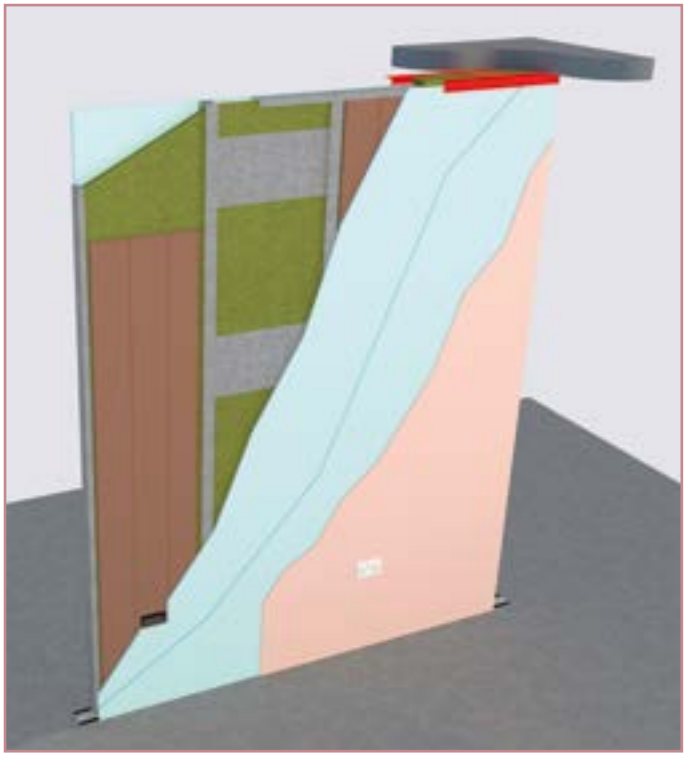
Shaftwalls

Introduction

The eeko-Shaftwall system is constructed from single eekowall panels, fully boarded on both sides. Another advantage of the eekowall system is the ability to build fully-boarded partitions from one side, ensuring maximum fire performance is maintained for both insulation and integrity.

Systems

System Reference	Wall Thickness (mm)	Fire (Minutes)	Acoustics (Rw dB)	Duty Rating	Weight (kg/m²)
EW-SW-110/120	110	120	47	Severe	40



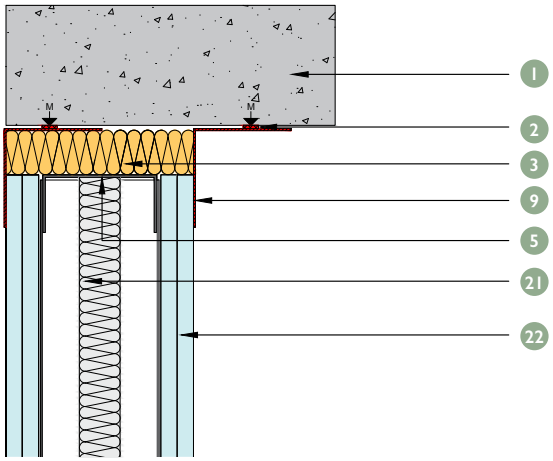
Shaftwalls Installation Guide

- The eekowall Panels are numbered, stacked and delivered in the order they will be required for installation
- The shaftwall positions are set out on the floor and soffit as per construction and system design drawings
- EW-FR Mastic is applied to the soffit side of an EW-DSP60/60 Steel Angle
- The EW-DSP60/60 Steel Angle is suitably secured to the soffit at maximum 600mm centres,* with the leg fixed either to the shaft side, or above the shaftwall head where there is limited access or a slab edge
- EW-FG70 Floor Guide is suitably secured to the floor with two rows of fixings at maximum 600mm centres, staggered by 300mm*
- Two beads of EW-FRA Adhesive are applied to an EW-WG70 Wall Guide
- The EW-WG70 Wall Guide is suitably secured to the abutting walls with two rows of fixings at maximum 600mm centres, staggered by 300mm*
- Where possible, the installation of eekowall Panels should commence against partitions, and be finished at exterior / masonry walls
- The EW-FG70 Floor Guide is swept immediately prior to installing the first eekowall Panel to remove any dust or loose particles
- A bead of EW-FR Mastic is applied to the EW-WG70 Wall Guide
- The first eekowall Panel is installed and lightly tapped into position against the EW-WG70 Wall Guide
- The first eekowall Panel is checked for plumb
- Where the abutting wall is <10mm from plumb, any gaps can be filled with a gypsum-based filler
- Where the abutting wall is >10mm from plumb, a bespoke eekowall panel will be constructed on site
- A bead of EW-FR Mastic is applied to the exposed edge of the installed eekowall Panel
- Additional eekowall Panels are installed in order as shown on the system design drawings
- The heads of the eekowall Panels can be temporarily clamped to the EW-DSP60/60 Steel Angle as required
- RW3 Insulation (sized to the panel thickness) is installed above the eekowall panels as installation progresses
- After three eekowall Panels are installed, the panels are retained with an EW-DSP60/60 Steel Angle suitably secured to the soffit at maximum 600mm centres*
- The final eekowall Panel is constructed on site against the abutting wall
- Door openings are formed from two L-shaped EW-DP Door Panels, with additional EW-DHP Door Head Panels for wide openings
- The first L-shaped EW-DP Door Panel is installed, with a brace to support the EW-DHP Door Head Panels where required
- Once the final EW-DP Door Panel is installed, the door head is reinforced with a full width section of EW-FG70 Floor Guide
- For full height door openings EW-FC70 Floor Cleats are installed to the base of the door jambs to secure the door opening. (These are covered by the door lining / frame)
- The Multiboards to EW-DP Door Panels and EW-DHP Door Head Panels are left oversized, so they can be trimmed to size on site
- Service opening positions are pre-determined and formed. A 3/4 height eekowall Panel is installed, with an EW-SP Service Panel above
- The service opening reveals are then boarded, with Z joints formed at the external corners

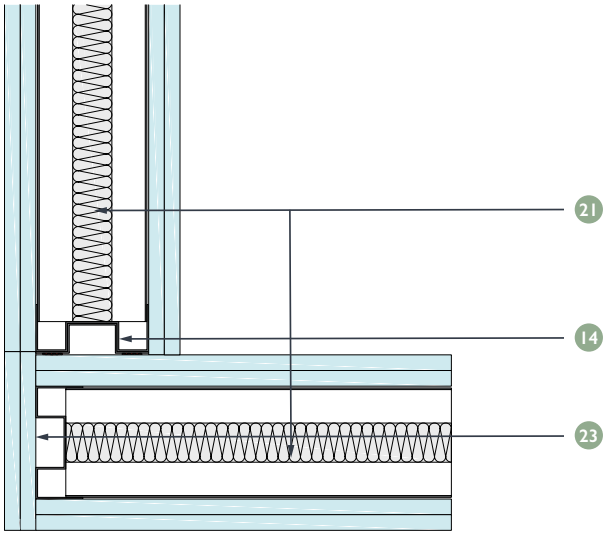
**The first and last fixings should be installed within 50mm of frame ends*

Typical Details

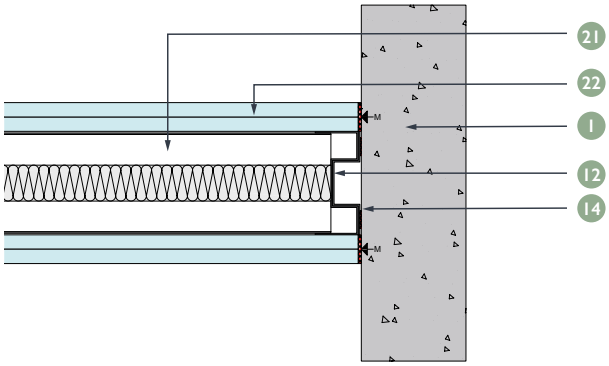
EW-SW 100/120 Head Detail



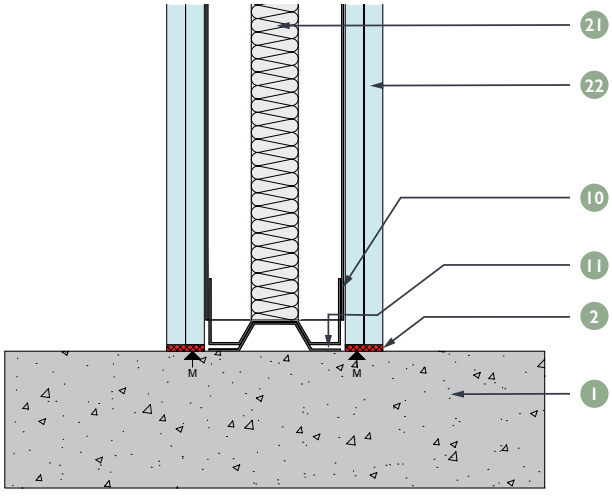
EW-IW 100/120 Corner Detail



EW-SW 100/120 Abutment Detail



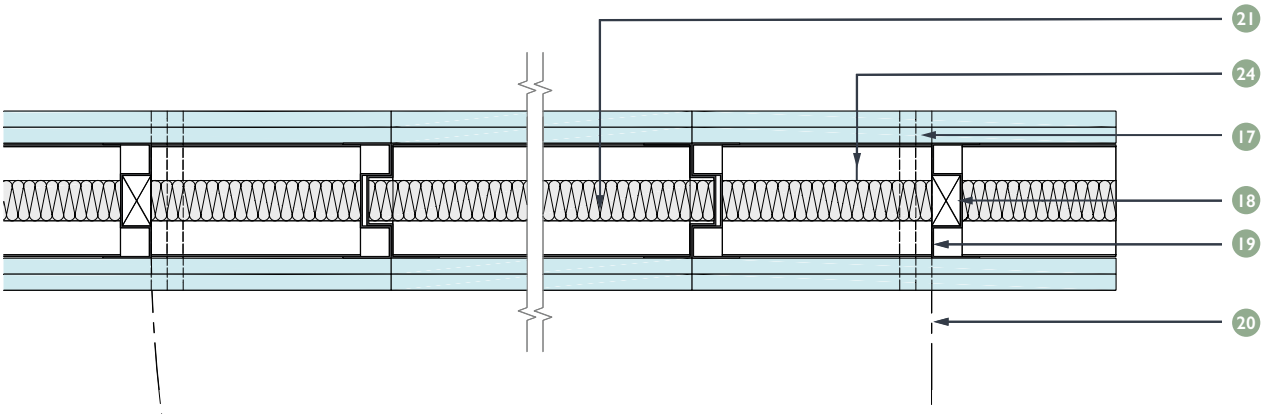
EW-SW 100/120 Base Detail



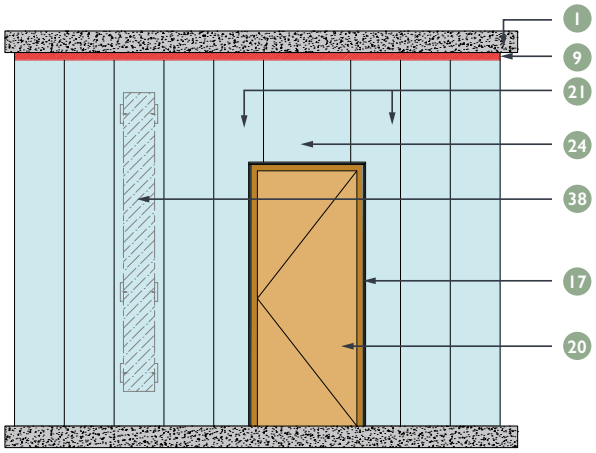
Key	
1	Substrate (by others)
2	EW FR Mastic
3	Rockwool RW3 (Nominal 60kg/m^3)
5	EW DP 50/60
9	60x60x1.2mm Steel Angle
10	EW BT 70
11	EW Floor Guide
12	EW W70 Stud
14	Panel Filled With Isover Acoustic Partition Roll @ 800mm c/c, Staggered Each Side And 1 Bead of Eekowall Adhesive Each Side
21	EW 100/120 Shaftwall Panel Filled with 25mm Isover Acoustic Partition Roll
22	2 x 10mm Glassroc F Multiboard
23	2 x 10mm Glassroc F Multiboard rips fixed to exposed end of Panel Filled with Isover Acoustic Partition Roll

Typical Details

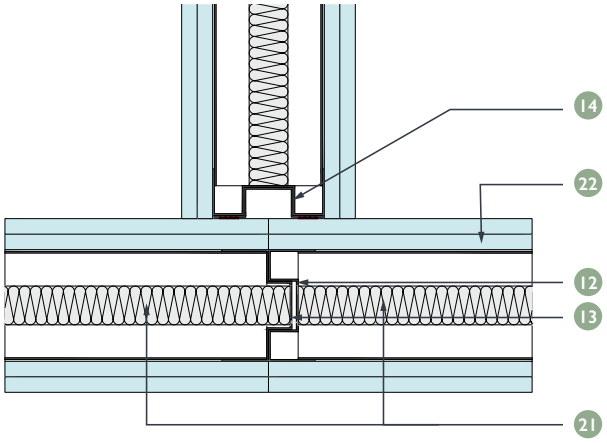
EW-SW 100/120 Door Detail



EW-SW 100/120 Shaftwall Door Elevation Detail



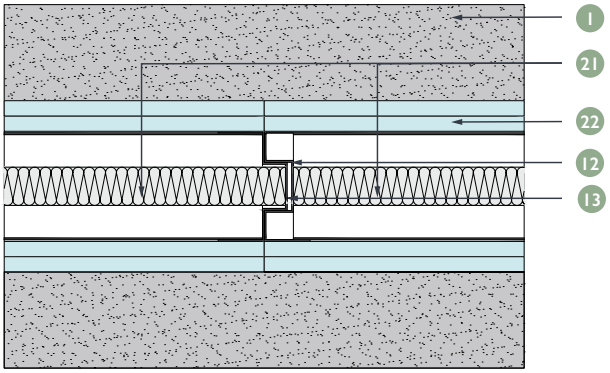
EW-SW 100/120 Tee Detail



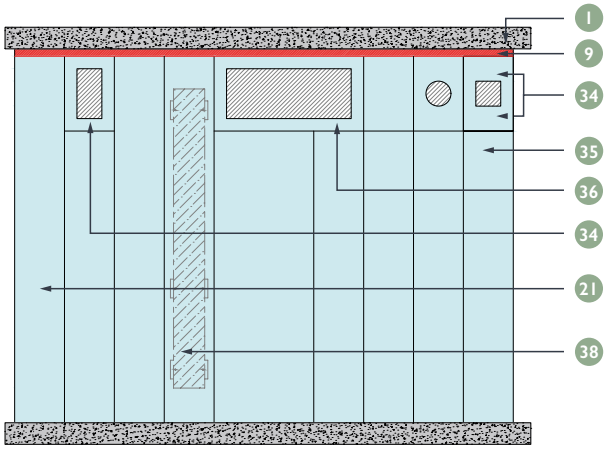
Key	
1	Substrate (by others)
9	60x60x1.2mm Steel Angle
12	EW W70 Stud
13	EW T70 Stud
14	Panel Filled With Isover Acoustic Partition Roll @ 800mm c/c, Staggered Each Side And 1 Bead of Eekowall Adhesive Each Side
17	Door Opening Reveal Boards
18	Timber Ground To Pick Up Door Fixing
19	Door Jamb Stud Within Panel Filled With Isover Acoustic Partition Roll
20	Door (Indicative Line)
21	EW 100/120 Shaftwall Panel Filled with 25mm Isover Acoustic Partition Roll
22	2 x 10mm Glassroc F Multiboard
24	EW 100/120 Shaftwall Door Panel Filled with 25mm Isover Acoustic Partition Roll
38	EW 100/120 Shaftwall Panel c/w pre-manufactured Cardboard Wireway Fully EW 100/120 Shaft Wall Door Elevation Filled With Isover Acoustic Partition Roll

Typical Details

EW-SW 100/120 Typical Detail



EW-SW 100/120 BWIC Elevation



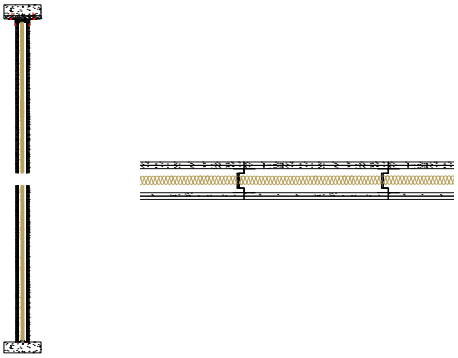
Key	
1	Substrate (by others)
9	60x60x1.2mm Steel Angle
12	EW W70 Stud
13	EW T70 Stud
21	EW 100/120 Shaftwall Panel Filled with 25mm Isover Acoustic Partition Roll
22	2 x 10mm Glassroc F Multiboard
34	Small Bespoke BWIC Panel
35	Reduced Height Panel
36	Large Bespoke BWIC Panel
38	EW 100/120 Shaftwall Panel c/w pre-manufactured Cardboard Wireway Fully Filled With Isover Acoustic Partition Roll

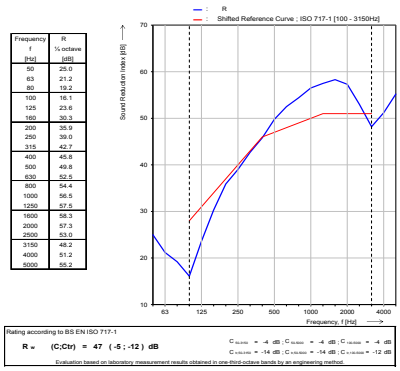
System Performance Summary

Partition Type:	Single frame EW-WP eekowall Panels, 2 x 10mm Glasroc F Multiboard each side
Partition Width:	110mm
Maximum Height:	3200mm (L/240 @ 200Pa)
Section References:	EW-DP60/60 Angles / EW-FG70 Floor Guides / EW-WG70 Wall Guides / EW-T70 Studs / EW-W70 Studs
Stud Centres:	400mm
Cavity Insulation:	25mm APR 1200 to the panel cavities
Fire Resistance:	120 / 120 minutes (Integrity / Insulation) to BE EN 1364-1: 1999
Sound Reduction:	Rw 47 db to BS EN ISO 10140-2:2010
Duty Rating:	Severe to BS 5234: Part 2: 1992

EW-IW-100/30
Fire: 120 / 120
Acoustics: Rw 47
Height: 3200mm
Duty: Severe

Report Ref:
WF-437609/R
UOS-05401-5357
BRE-P120717-1002





Frequency f [Hz]	R ⅓ octave [dB]
50	25.0
63	21.2
80	19.2
100	16.1
125	23.6
160	30.3
200	35.9
250	39.0
315	42.7
400	45.8
500	49.8
630	52.5
800	54.4
1000	56.5
1250	57.5
1600	58.3
2000	57.3
2500	53.0
3150	48.2
4000	51.2
5000	55.2

Construction Guidelines

- The first EW Head Angles are secured to the structure at 600mm centres
- EW Floor and Wall Guides are secured to the structure at 600mm centres and mastic sealed
- The EW Panels are positioned and temporarily clamped were required
- The second EW Head Angles are secured to the structure at 600mm centres to retain all EW Panels
- Door and service opening EW Panels are installed as works progress
- The Final EW Panel is constructed on-site against the abutting wall
- Finishes - Not Required

Partition Height: 3000mm	Classification: Severe Duty				
Summary of Tests for Grade Compliance					
Requirement Tested	Annex	Grade performance achieved: Pass / Fail			
		LD	MD	HD	SD
Stiffness	A				Pass
Surface damage by small hard body impact (straight partition)*	B				Pass
Surface damage by small hard body impact (return partition)*	B				Pass
Resistance to damage by impact from a large soft body impact (straight partition)	C				Pass
Resistance to damage by impact from a large soft body impact (return partition)	C				Pass
Perforation by small body impact (straight partition)	D				Pass
Perforation by small body impact (straight partition)	D				Pass
Resistance to structural damage by impact from a large soft body impact	E				Pass
Door slamming	F				Pass
Report No: BRE-P120717-1000	Grade Awarded: Severe Duty				
Construction Tested: Partition constructed with single frame eekowall Panels with 2 x 10mm Glasroc F Multiboard each side. 4920mm long x 3000mm high as described above; one fixed end, (returned), and one fee end.					
Variation in Construction: N/A					
*As this is indicative (without pass or fail) the term "Pass" is shown against the appropriate level of performance. Sponsors and specifiers should ascertain if surface damage is acceptable					

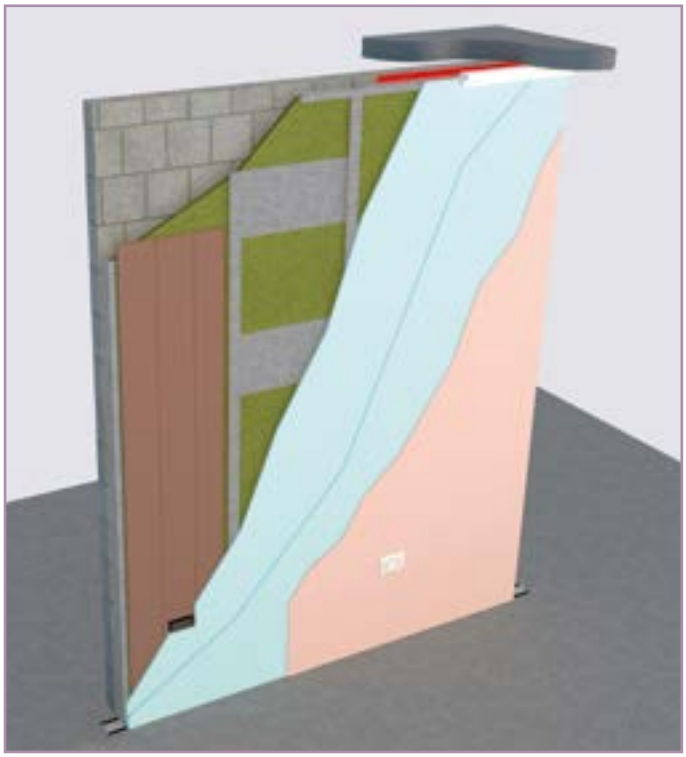
System performance is based on the results of tests conducted in accordance with BS 476 Part 22:1987 or EN1364-1:1999 (Fire), BS EN ISO 10140-2:2010 (Acoustic), BS 5234:1992 Part 2 (Structural integrity) using gypsum-based plasterboard as defined in BS EN 520:2004, A1:2009.

eekowall

Independent Wall Linings

Introduction

The eeko-IWL wall lining system is constructed from single eekowall panels boarded to the room side only. Ideal for high acoustic linings to lift and stair core walls, or thermal and acoustic improvements to external walls.



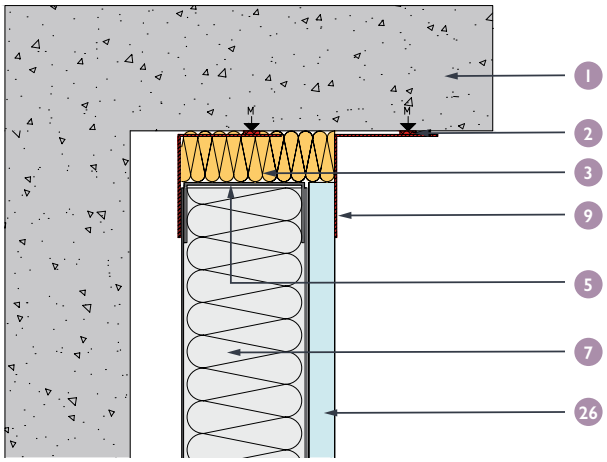
Independent Wall Linings Installation Guide

- The eekowall Panels are numbered, stacked and delivered in the order they will be required for installation
- The lining positions are set out on the floor and soffit as per construction and system design drawings
- EW-FR Mastic is applied to the soffit side of an EW-DSP60/60 Steel Angle
- The EW-DSP60/60 Steel Angle is suitably secured to the soffit at maximum 600mm centres,* with the leg fixed either to the cavity side, or above the lining head where there is limited space
- EW-DHG Deflection Head Gasket is applied to the inner side of the EW-DSP60/60 Steel Angle to prevent metal to metal contact between the angle and eekowall Panels
- EW-FG70 Floor Guide is suitably secured to the floor with two rows of fixings at maximum 600mm centres, staggered by 300mm*
- Two beads of EW-FRA Adhesive are applied to an EW-WG70 Wall Guide
- The EW-WG70 Wall Guide is suitably secured to the abutting walls with two rows of fixings at maximum 600mm centres, staggered by 300mm*
- Where cavity insulation is required, this is mechanically secured to prevent future slumping
- Where possible, the installation of eekowall Panels should commence against partitions, and be finished at exterior / masonry walls
- The EW-FG70 Floor Guide is swept immediately prior to installing the first eekowall Panel to remove any dust or loose particles
- A bead of EW-FR Mastic is applied to the EW-WG70 Wall Guide
- The first eekowall Panel is installed and lightly tapped into position against the EW-WG70 Wall Guide, with the boards installed to the room side
- The first eekowall Panel is checked for plumb
- Where the abutting wall is <10mm from plumb, any gaps can be filled with a gypsum-based filler
- Where the abutting wall is >10mm from plumb, a bespoke eekowall panel will be constructed on site
- A bead of EW-FR Mastic is applied to the exposed edge of the installed eekowall Panel
- Additional eekowall Panels are installed in order as shown on the system design drawings
- The heads of the eekowall Panels can be temporarily clamped to the EW-DSP60/60 Steel Angle as required
- RW3 Insulation (sized to the panel thickness) is installed above the eekowall panels as installation progresses
- After three eekowall Panels are installed, the panels are retained with an EW-DSP60/60 Steel Angle suitably secured to the soffit at maximum 600mm centres*
- The final eekowall Panel is constructed on site against the abutting wall
- Door or window openings are formed from two L-shaped EW-DP Opening Panels, with additional EW-DHP Head Panels for wide openings
- The first L-shaped EW-DP Opening Panel is installed, with a brace to support the EW-DHP Head Panels where required
- Once the final EW-DP Opening Panel is installed, the opening head is reinforced with a full width section of EW-FG70 Floor Guide
- The plasterboards to EW-DP Opening Panels and EW-DHP Head Panels are left oversized, so they can be trimmed to size on site
- Service opening positions are pre-determined and formed. A 3/4 height eekowall Panel is installed, with an EW-SP Service Panel above
- The service opening reveals can then be boarded if required, with Z joints formed at the external corners

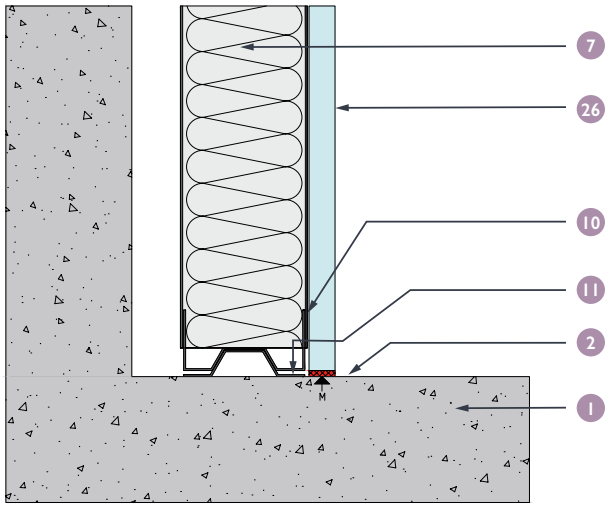
**The first and last fixings should be installed within 50mm of frame ends*

Typical Details

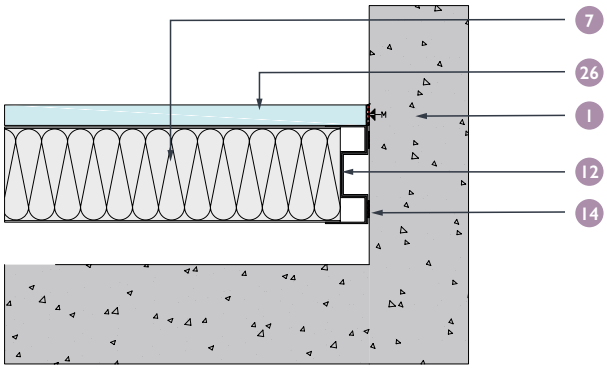
EW-IWL Single Layer Head Detail



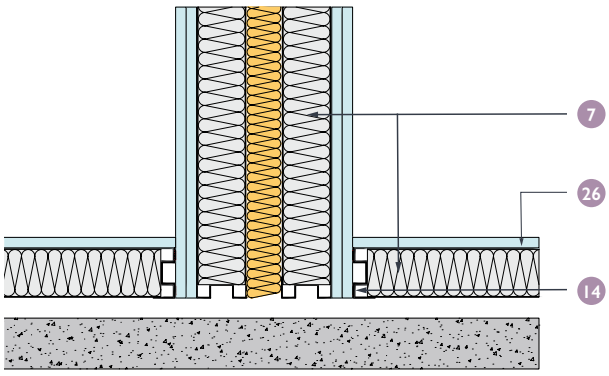
EW-IWL Single Layer Base Detail



EW-IWL Single Layer Abutment Detail



EW-IWL Single Layer Tee Detail

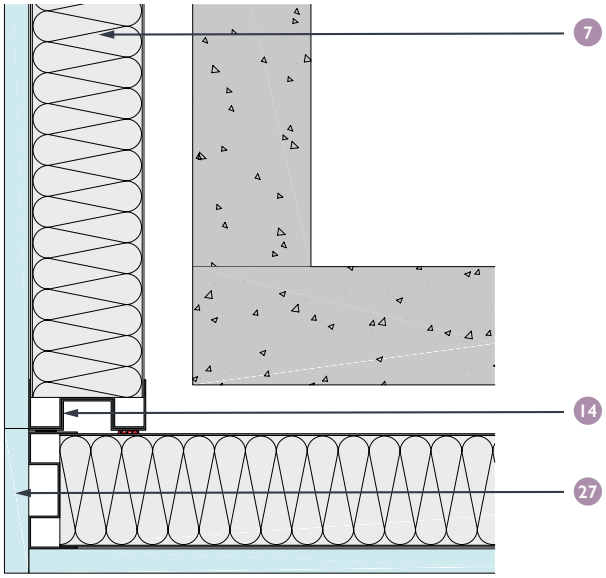


Key	
1	Substrate (by others)
2	EW FR Mastic
3	Rockwool RW3 (Nominal 60kg/m^3)
5	EW HT 70
7	EW 250/120 Party Wall Panel Fully Filled with Isover Acoustic Partition Roll
9	60x60x1.2mm Steel Angle
10	EW BT 70
11	EW Floor Guide
12	EW W70 Stud
14	Wall Guide Rail Fixed Each Side To Panel Filled With Isover Acoustic Partition Roll @ 800mm c/c, Staggered Each Side And 1 Bead of Eekowall Adhesive Each Side
26	1x Plasterboard

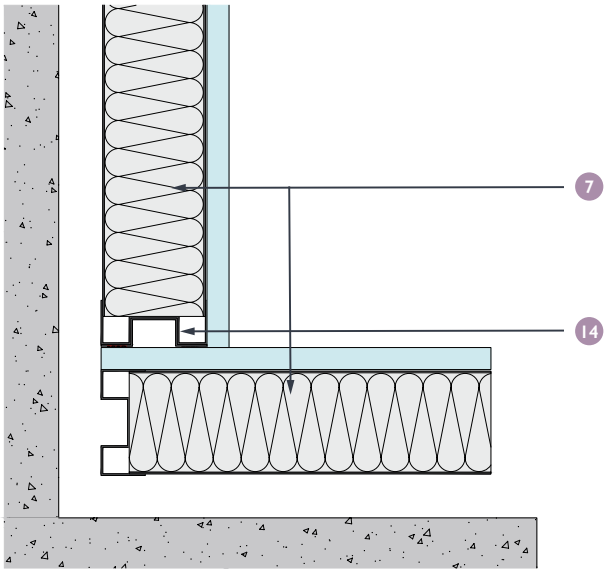
eekowall

Typical Details

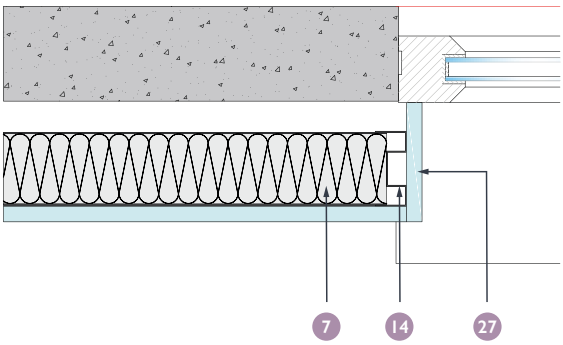
EW-IWL Single Layer External Corner Detail



EW-IWL Single Layer Internal Corner Detail



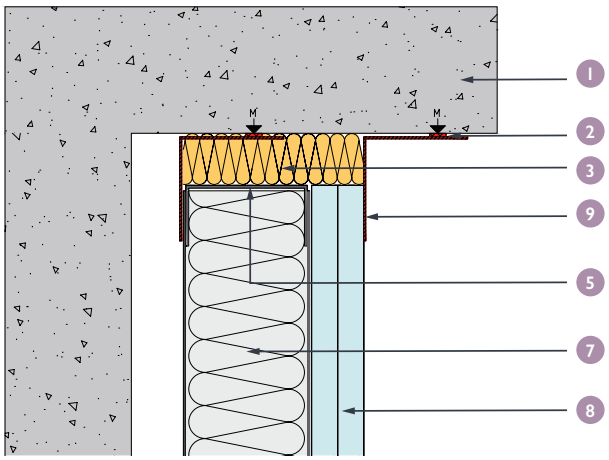
EW-IWL Single Layer Window Detail



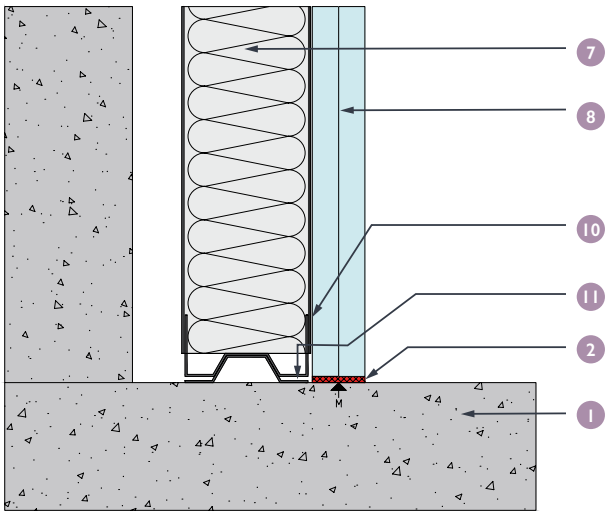
Key	
7	EW 250/120 Party Wall Panel Fully Filled with Isover Acoustic Partition Roll
14	Wall Guide Rail Fixed Each Side To Panel Filled With Isover Acoustic Partition Roll @ 800mm c/c, Staggered Each Side And 1 Bead of Eekowall Adhesive Each Side
15	Rip of Plasterboard Wallboard fixed to expose end of Panel filled with Isover Acoustic Partition Roll

Typical Details

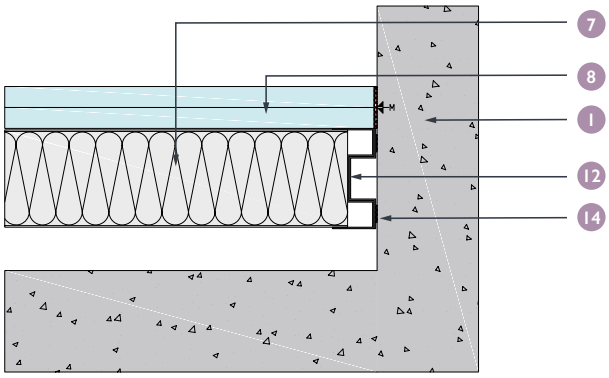
EW-IWL Double Layer Head Detail



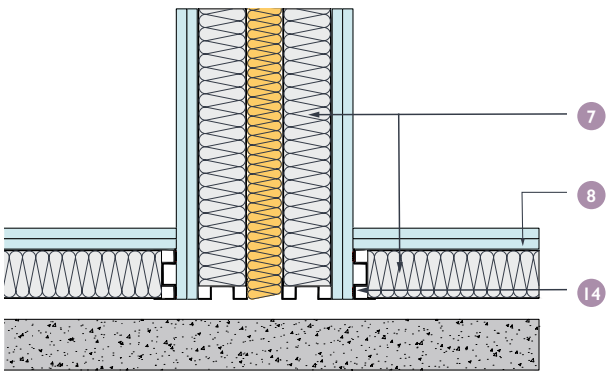
EW-IWL Double Layer Base Detail



EW-IWL Double Layer Abutment Detail



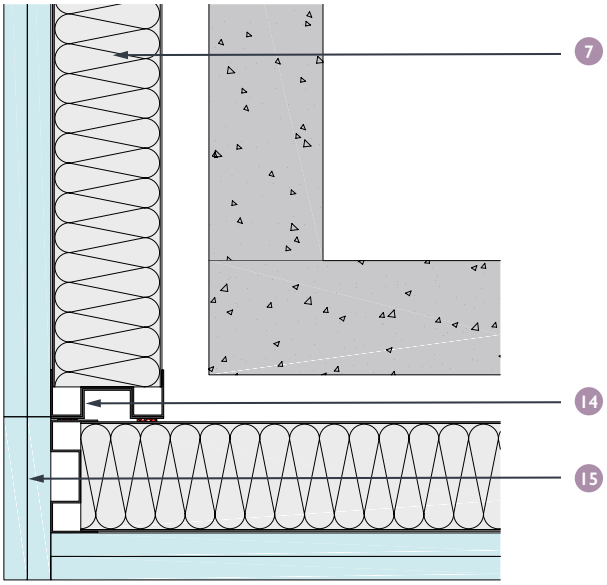
EW-IWL Double Layer Tee Detail



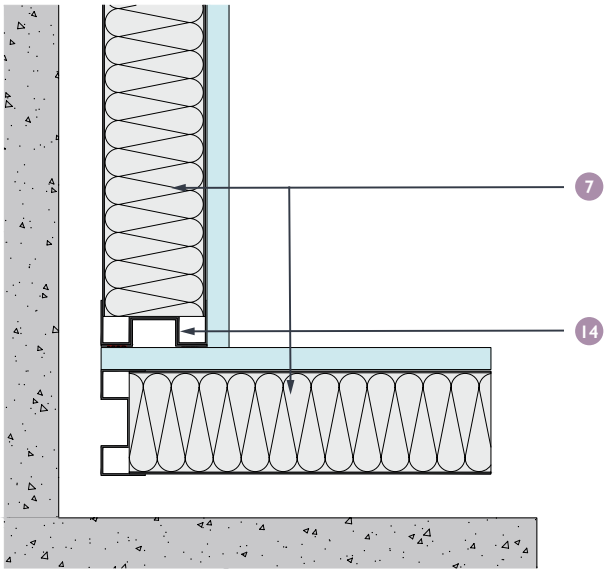
Key	
1	Substrate (by others)
2	EW FR Mastic
3	Rockwool RW3 (Nominal 60kg/m^3)
5	EW HT 70
7	EW 250/120 Party Wall Panel Fully Filled with Isover Acoustic Partition Roll
8	2 x Plasterboard
9	60x60x1.2mm Steel Angle
10	EW BT 70
11	EW Floor Guide
12	EW W70 Stud
14	Panel Filled With Isover Acoustic Partition Roll @ 800mm c/c, Staggered Each Side And 1 Bead of Eekowall Adhesive Each Side

Typical Details

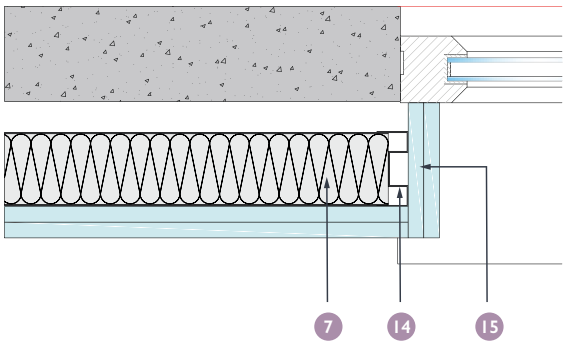
EW-IWL Double Layer External Corner Detail



EW-IWL Double Layer Internal Corner Detail



EW-IWL Double Layer Window Detail



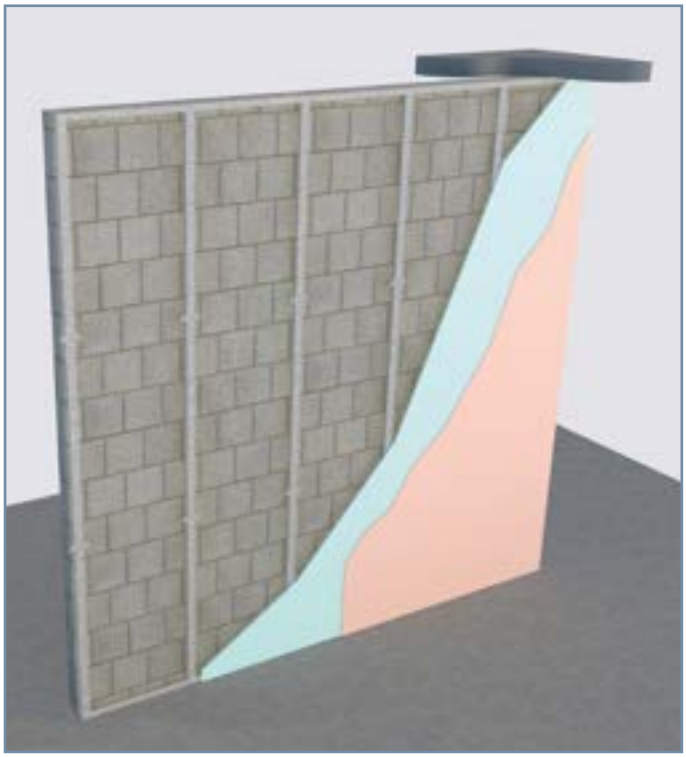
Key	
7	EW 250/120 Party Wall Panel Fully Filled with Isover Acoustic Partition Roll
14	Panel Filled With Isover Acoustic Partition Roll @ 800mm c/c, Staggered Each Side And 1 Bead of Eekowall Adhesive Each Side
15	2 x 15mm Plasterboard (min 12.6kg/m3) Wallboard fixed to expose end of panel filled with Isover Acoustic Partition Roll

eekowall

Wall Liner

Introduction

The eeko-WL wall lining system is constructed onsite from our top quality framing and board components. Perfect for providing service cavities to existing or structural walls whilst maximising room space, and for maintaining eeko-Party wall performance across columns and shear walls.



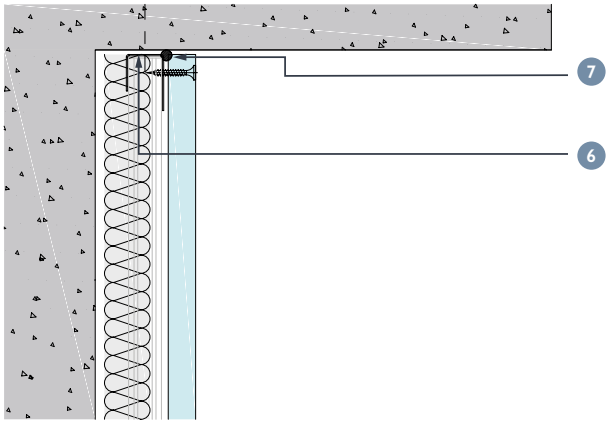
Wall Liner Installation Guide

- The eekowall Wall Lining system is constructed on site after the installation of other eekowall walling systems, and the installation of M&E services
- The lining positions are set out on the floor and soffit as per construction and system design drawings
- EW-WL8 Channel is suitably secured to the head, base and abutments at maximum 600mm centres*
- The stud positions are set out and marked at maximum 600mm centres, (reduced to 400mm to tiled areas)
- EW-WL75 Brackets, (up to 75mm cavity), or EW-WL125 Brackets, (up to 125mm cavity), are suitably secured to the background at 800mm centres, (reduced to 600mm to tiled areas). Washers or wide head fixings must be used
- The EW-WL75 or EW-WL125 Bracket legs are left flat until the EW-WL1 Channels are installed
- EW-WL1 Channels are inserted in to the head and base channels and aligned with the EW-WL75 or EW-WL125 Brackets. The channels are extended with EW-WL3 Connectors where necessary
- The EW-WL1 Channels are levelled and secured to the EW-WL75 or EW-WL125 Brackets with 1no Wafer Head Drywall screw per junction
- Any excess bracket leg is folded back into the cavity. (Avoid trimming the bracket legs as this can result in sharp edges)
- Where cavity insulation is required, this is mechanically secured to prevent future slumping
- The EW-WL8 Floor Channel is swept immediately prior to installing EW-FR Mastic and plasterboards to remove any dust or loose particles
- EW-FR Mastic is applied to the full perimeter of the lining frame as boarding progresses
- The specified lining boards are screw fixed to all framing members with drywall screws at maximum 300mm centres (reduced to 200mm centres at external corners). EW-FP Flat Plate is installed to the horizontal board joints to ensure maximum 300mm fixing centres are maintained to the outer layer boards entire perimeter
- The board joints are staggered between layers, with minimum 300mm overlap between horizontal board joints

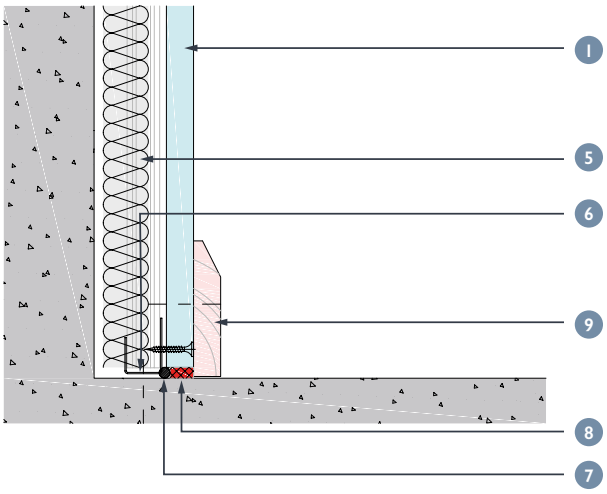
**The first and last fixings should be installed within 50mm of frame ends*

Typical Details

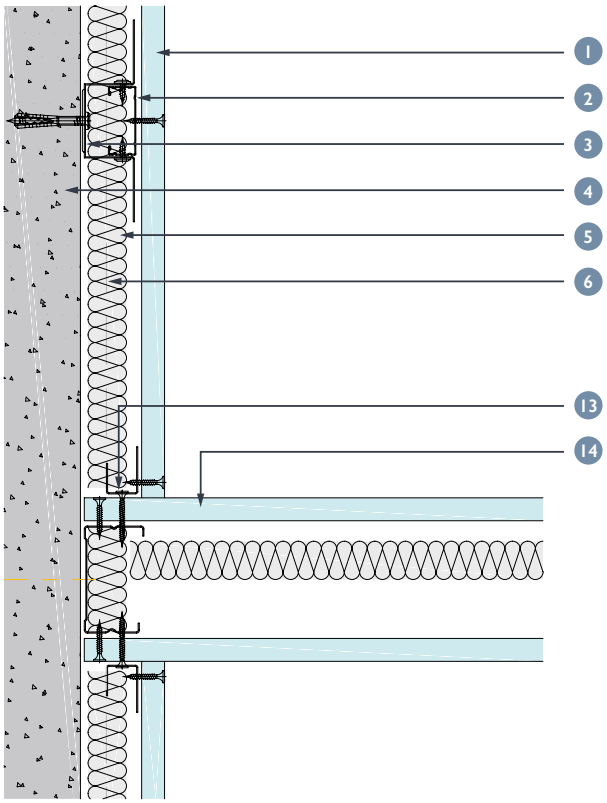
EW-WL Head Detail



EW-WL Base Detail



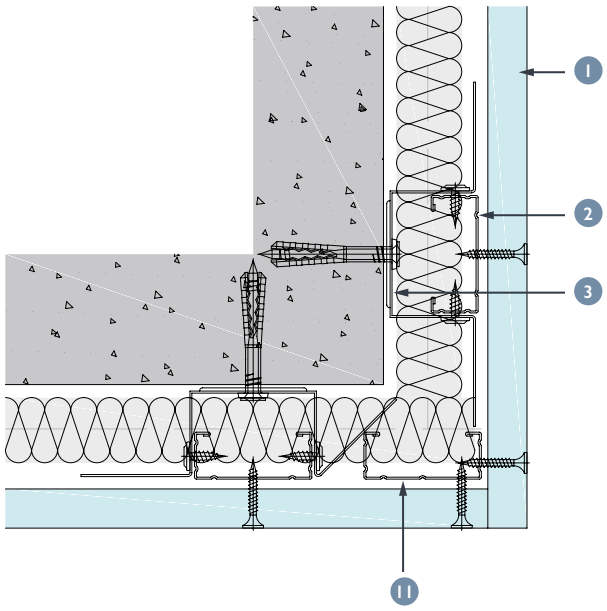
EW-WL Abutment Detail



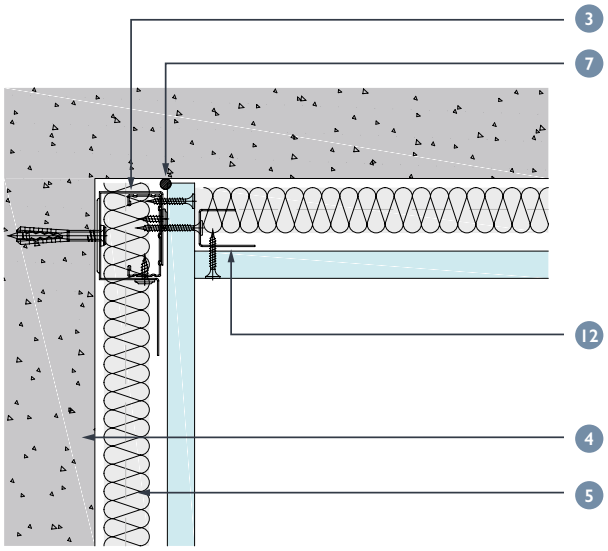
Key	
1	One layer 15mm plasterboard fixed with suitable screws at 300mm centres (200mm centres at external angles)
2	EW-WL1 Lining Channels close to corners and at 600mm centres thereafter. Lining channels extended with EW-WL3 Channel Connectors (not shown)
3	EW-WL75 or EW-WL125 Brackets at 800mm centres fixed to background with suitable fixings. Legs fixed to lining channel with suitable wafer head screws and bent back from lining channel face. For internal corners leg bent across lining channel face and fixed with suitable wafer head screws
4	Indicative masonry background
5	Rockwool insulation where required
6	EW-WL8 Channel suitably fixed to floor/soffit at 600mm centres
7	Sealant for optimum sound insulation
8	Jointing material bulk fill where gap exceeds 5mm
9	Indicative skirting
13	EW-WL8 Channel fixed through board to stud with suitable screws at 600mm centres
14	Indicative metal stud partition suitably fixed to wall

Typical Details

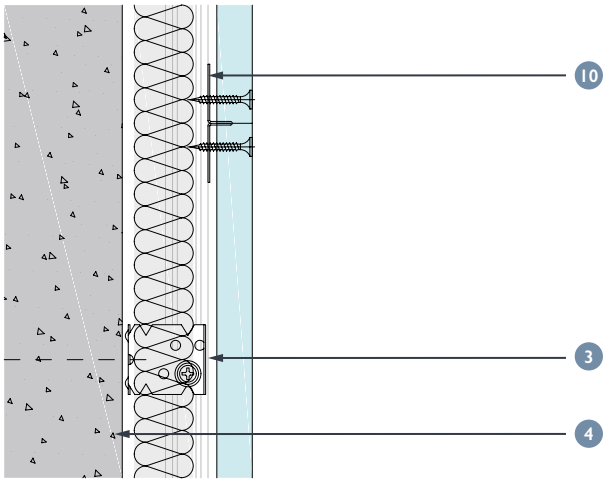
EW-WL External Corner Detail



EW-WL Internal Corner Detail



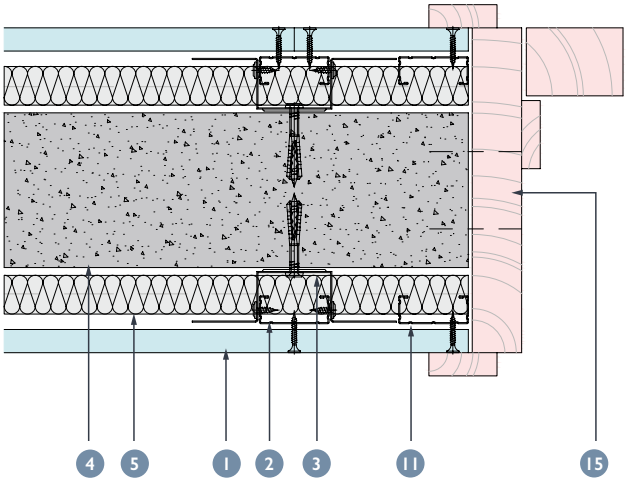
EW-WL Standard Detail



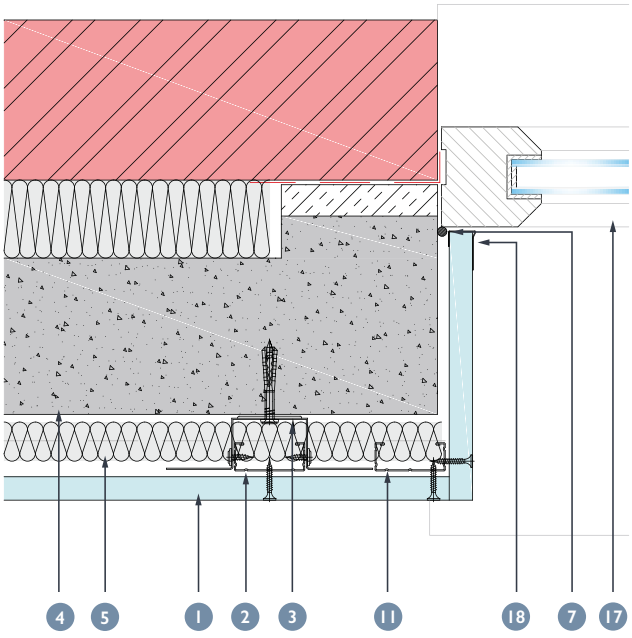
Key	
1	One layer 15mm plasterboard fixed with suitable screws at 300mm centres (200mm centres at external angles)
2	EW-WL1 Channels close to corners and at 600mm centres thereafter. Lining channels extended with EW-WL3 Channel Connectors (not shown)
3	EW-WL75 or EW-WL125 Brackets at 800mm centres fixed to background with suitable fixings. Legs fixed to lining channel with suitable wafer head screws and bent back from lining channel face. For internal corners leg bent across lining channel face and fixed with suitable wafer head screws
4	Indicative masonry background
5	Rockwool insulation where required
7	Sealant for optimum sound insulation
10	EW-RS Restraining Strap progressively inserted between board edge and lining channels to support horizontal board joints
11	Additional EW-WL1 Lining Channel fixed to track at head and base with suitable wafer head screws
12	EW-WL8 Channel fixed through board to lining channel with suitable screws at 600mm centres

Typical Details

EW-WL Door Opening Detail



EW-WL Window Opening Detail



Key	
1	One layer 15mm plasterboard fixed with suitable screws at 300mm centres (200mm centres at external angles)
2	EW-WL1 Channels close to corners and at 600mm centres thereafter. Lining channels extended with EW-WL3 Channel Connectors (not shown)
3	EW-WL75 or EW-WL125 Brackets at 800mm centres fixed to background with suitable fixings. Legs fixed to lining channel with suitable wafer head screws and bent back from lining channel face. For internal corners leg bent across lining channel face and fixed with suitable wafer head screws
4	Indicative masonry background
5	Rockwool insulation where required
7	Sealant for optimum sound insulation
11	Additional EW-WL1 Lining Channel fixed to track at head and base with suitable wafer head screws
15	Indicative timber door frame and architrave fixed to wall
17	Indicative window frame
18	Drywall Metal Edge Bead fixed to window frame at 600mm centres

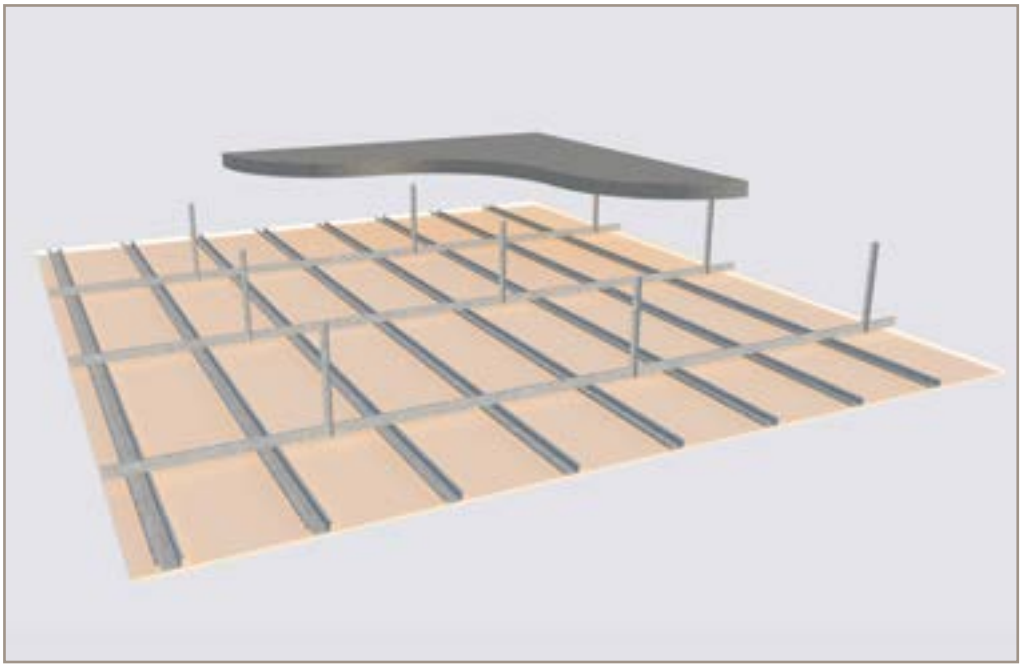
eekowall

eekowall

MF Ceilings

Introduction

The MF Ceiling system is constructed onsite to provide the perfect ceiling finishes for your project. Ideal for modern monolithic ceilings to apartments, or perforated ceiling finishes in corridors and communal areas to satisfy the Building Regulations for acoustic performance.



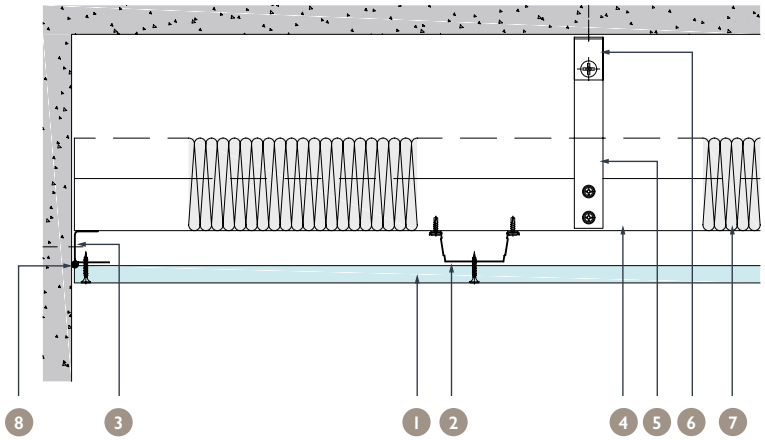
MF Ceiling Installation Guide

- The eekowall MF Ceiling system is constructed on site after the installation of eekowall walling systems, and the installation of M&E services
- The ceiling height is set out and marked on the perimeter walls as per construction and system design drawings
- EW-CF6 Perimeter Channel is suitably secured to the room perimeter at maximum 600mm centres*
- The hanger positions are set out and marked on the soffit at maximum 1200mm x 1200mm centres, (refer to project specification)
- EW-CF25/25 Steel Angle hangers are suitably secured to the soffit with EW-CF12 Soffit Cleats and EW-CF11 Nuts and Bolts
- EW-CF25/25 Steel Angles can be cut, twice folded and direct fixed to the soffit if preferred. Washers or wide head fixings must be used, and the ceilings maximum load is reduced by 25%
- The hangers are levelled and marked with the top of the EW-CF6 Perimeter Channel
- EW-CF7 Primary Channels are secured to the perimeter and each hanger. The EW-CF7 Primary channels are twice fixed to each hanger with 2no Wafer Head Jack-Point screws, installed through the hanger into the EW-CF7 Primary Channel
- Any excess hanger is snipped and folded back into the cavity, to avoid leaving sharp edges
- The EW-CF7 Primary Channels are extended by overlapping back to back by minimum 150mm, secured with 2no Wafer Head Jack-Point screws per junction, or abutted with an additional 300mm section secured across the back of the EW-CF7 Primary Channel, with 2no Wafer Head Jack-Point screws either side of the joint
- EW-CF5 Secondary Channels are secured to the underside of the EW-CF7 Primary Channels to form a perpendicular grid at 400mm or 600mm centres, (refer to project specification). Each junction is secured with 2no Wafer Head Jack-Point screws
- The EW-CF5 Secondary Channels are extended by being overlapped by minimum 150mm, and secured both sides with 2no Wafer Head Drywall screws, (4no total)
- Where cavity insulation is required, this is laid above the grid and secured to prevent loss during the boarding process
- EW-FR Mastic is applied to the full perimeter of the ceiling frame as boarding progresses
- The specified lining boards are screw fixed to all framing members with drywall screws at 230mm centres across the field of the board, reduced to 150mm centres at board ends and cut edges
- The board joints are staggered between rows and layers, with 600mm overlap between long board joints

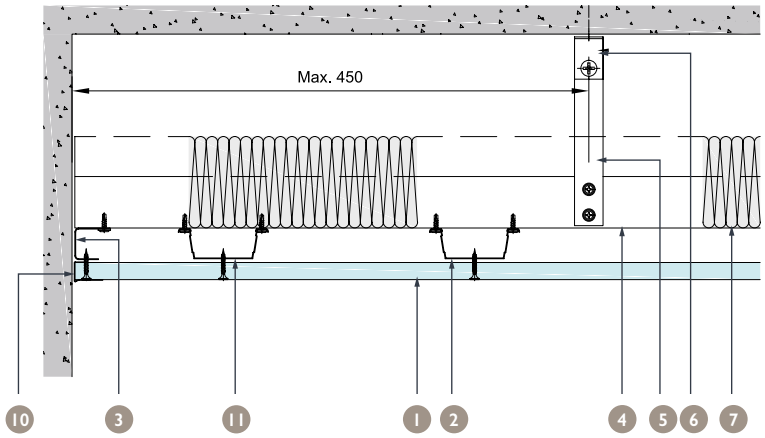
**The first and last fixings should be installed within 50mm of frame ends*

Typical Details

MF Ceiling Perimeter Parallel Single



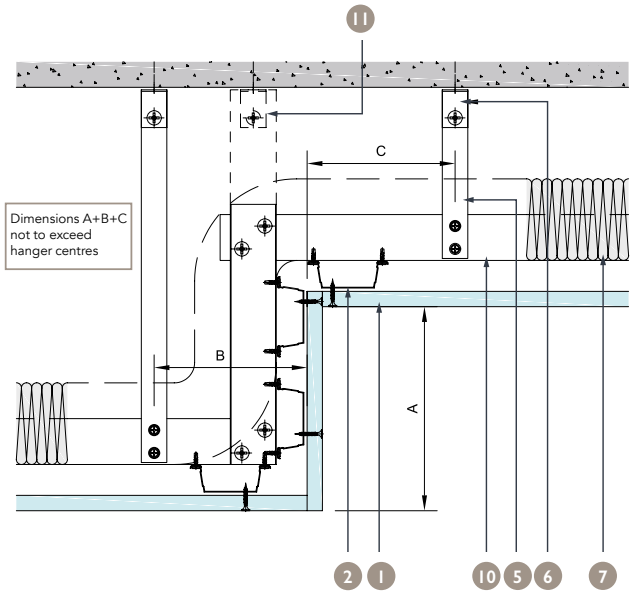
MF Ceiling Parallel to Wall Unfixed



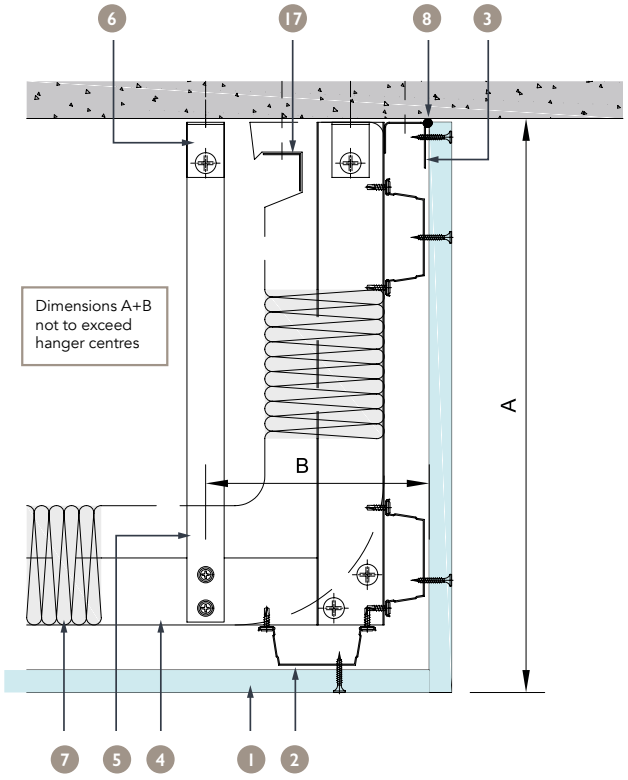
Key			
1	One layer 15mm plasterboard fixed with suitable screws at 230mm centres in field of board and 150mm centres at board ends	6	EW-CF12 Soffit Cleat fixed to hanger with EW-CF11 Nut and Bolt and suitably fixed to soffit
2	EW-CF5 Channel at max. 450mm centres fixed to each EW-CF7 Channel with two suitable wafer head screws	7	Rockwool insulation where required
3	EW-CF6 Perimeter Channel suitably fixed to wall at 600mm centres	8	Sealant for optimum sound insulation
4	EW-CF7 Primary Support Channels at specified centres	10	Drywall Edge Bead
5	EW-CF25/25 Steel Angle hangers at specified centres fixed to EW-CF7 Channel with two suitable wafer head screws	11	Additional EW-CF5 Channel at perimeter fixed to each EW-CF7 Channel with two suitable wafer head screws

Typical Details

MF Ceiling Change of Level Parallel to Vertical Face



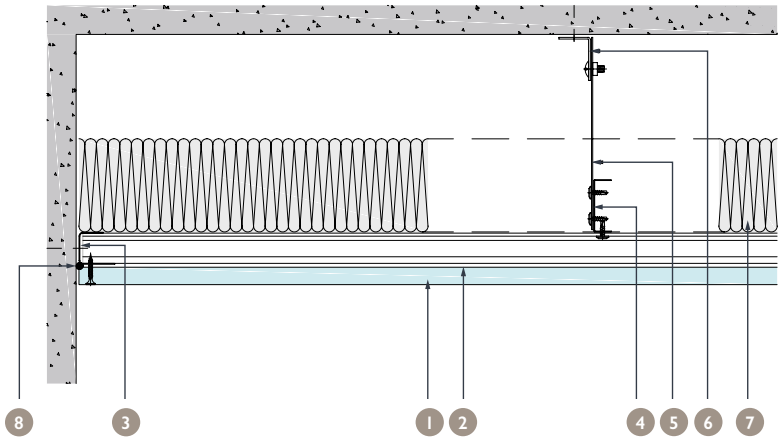
MF Ceiling Bulkhead to Vertical Face



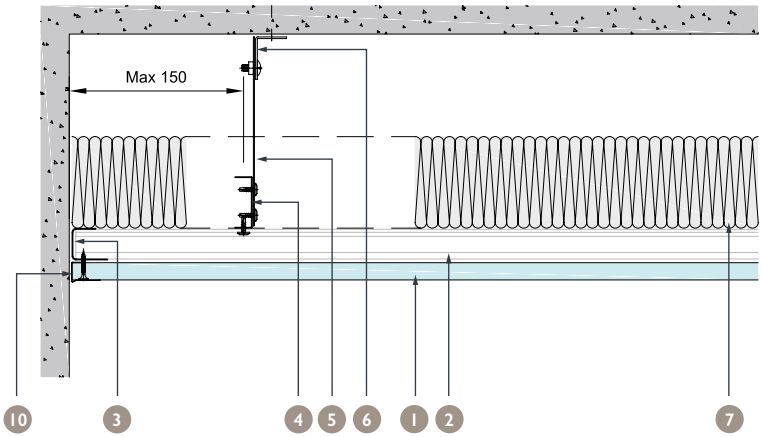
Key	
1	One layer 15mm plasterboard fixed with suitable screws at 230mm centres in field of board and 150mm centres at board ends
2	EW-CF5 Channel at max. 450mm centres fixed to each EW-CF7 Channel with two suitable wafer head screws
3	EW-CF6 Perimeter Channel suitably fixed to wall at 600mm centres
4	EW-CF7 Primary Support Channels at specified centres
5	EW-CF25/25 Steel Angle hangers at specified centres fixed to EW-CF7 Channel with two suitable wafer head screws
6	EW-CF12 Soffit Cleat fixed to hanger with EW-CF11 Nut and Bolt and suitably fixed to soffit
7	Rockwool insulation where required
8	Sealant for optimum sound insulation
10	Drywall Edge Bead
11	Additional EW-CF5 Channel at perimeter fixed to each EW-CF7 Channel with two suitable wafer head screws
17	Steel angle or timber batten suitably fixed to soffit to retain insulation where required

Typical Details

MF Ceiling Perimeter Perpendicular Single



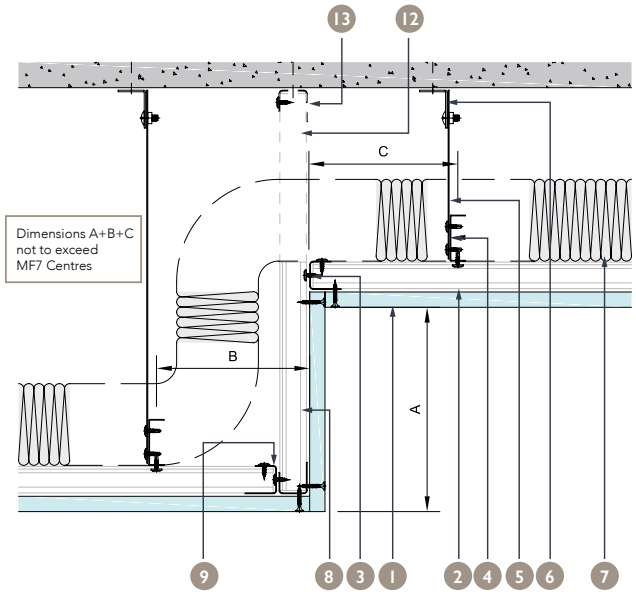
MF Ceiling Perpendicular to Wall Unfixed



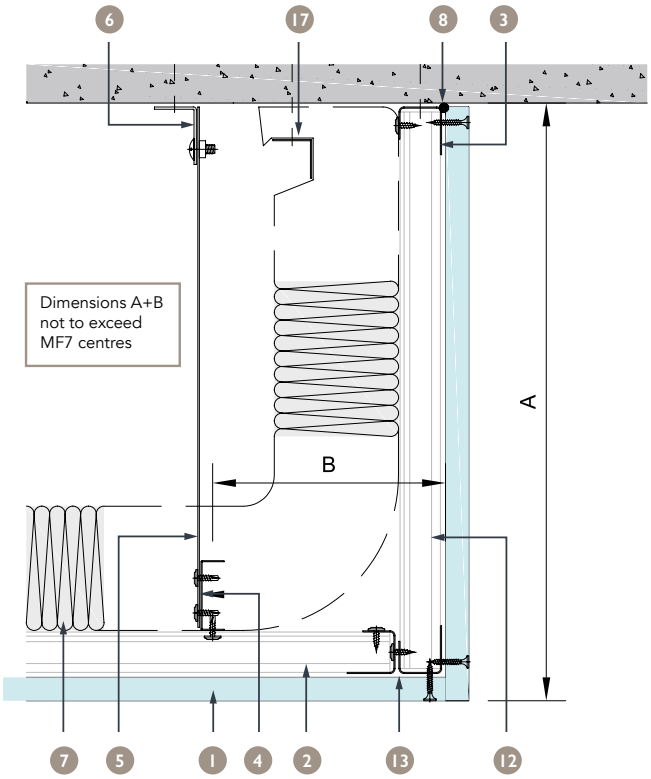
Key			
1	One layer 15mm plasterboard fixed with suitable screws at 230mm centres in field of board and 150mm centres at board ends	6	EW-CF12 Soffit Cleat fixed to hanger with EW-CF11 Nut and Bolt and suitably fixed to soffit
2	EW-CF5 Channel at max. 450mm centres fixed to each EW-CF7 Channel with two suitable wafer head screws	7	Rockwool insulation where required
3	EW-CF6 Perimeter Channel suitably fixed to wall at 600mm centres	8	Sealant for optimum sound insulation
4	EW-CF7 Primary Support Channels at specified centres	10	Drywall Edge Bead
5	EW-CF25/25 Steel Angle hangers at specified centres fixed to EW-CF7 Channel with two suitable wafer head screws		

Typical Details

MF Ceiling Change of Level Perpendicular to Vertical Face



MF Ceiling Bulkhead Perpendicular to Vertical Face



Key	
1	One layer 15mm plasterboard fixed with suitable screws at 230mm centres in field of board and 150mm centres at board ends
2	EW-CF5 Channel at max. 450mm centres fixed to each EW-CF7 Channel with two suitable wafer head screws
3	EW-CF6 Perimeter Channel suitably fixed to wall at 600mm centres
4	EW-CF7 Primary Support Channels at specified centres
5	EW-CF25/25 Steel Angle hangers at specified centres fixed to EW-CF7 Channel with two suitable wafer head screws
6	EW-CF12 Soffit Cleat fixed to hanger with EW-CF11 Nut and Bolt and suitably fixed to soffit
7	Rockwool insulation where required
8	Sealant for optimum sound insulation
9	Two layers 15mm Plasterboard fixed with suitable screws at 230mm centres in field of board and 150mm centres at board ends
12	Vertical EW-CF5 Channel at max. 450mm centres fixed to EW-CF6 Channel at top with suitable wafer head screws
13	EW-CF6 Perimeter Channels fixed together at 600mm centres and to each EW-CF5 Channel with suitable wafer head screws
17	Steel angle or timber batten suitably fixed to soffit to retain insulation where required

eekowall

Building Regulations

Fire

The Building Regulations for Fire generally require a minimum fire resistance between dwellings of 60 minutes, this can increase to 90 or 120 minutes depending on the height of the building as well as other factors such as firefighting corridors. Guidance must be sought from either ADB, TH2 or TGDB, Fire Consultant Engineers and the relevant Building Control Authority before design or construction commences. Internal partitions are usually required to achieve 30 minutes fire resistance, however, this requirement can be affected by active fire protection systems as well as other building considerations.

Please see the following documents for further guidance:

- England and Wales - **Approved Document B, (ADB)**
- Scotland - **Technical Handbook 2, (TH2)**
- Ireland - **Technical Guidance Document B, (TGDB)**

Acoustics

England
Approved Document E, (ADE) requires residential separating partitions to be able to achieve an on-site acoustic performance shown as DnT,w + Ctr dB. This is usually proven by on-site testing. Please note; when calculating the expected on site performance of separating walls you will need to factor in the Ctr correction, plus an allowance for on-site flanking sound, (usually between 4 and 8 dB). We recommend you seek the advice of an Acoustician regarding the expected flanking allowance for your project. Internal partitions are required to have been proven by test in a laboratory, (Rw) and are therefore not subject to on site testing.

Please see **Approved Document E, (ADE)** for further guidance.

Table 1 - England and Wales	
New build separating wall (To meet ADE)	$D_{nT,w}$ + Ctr 45 dB
Conversion separating wall (To meet ADE)	$D_{nT,w}$ + Ctr 43 dB
England and Wales internal partitions (within dwellings)	R_w 40 dB

Scotland
Technical Handbook 5, (TH5) requires residential separating partitions to be able to achieve an on-site acoustic performance shown as DnT,w dB. This must be proven by on-site testing. Please note; when calculating the expected on-site performance of separating walls you will need to factor in an allowance for on-site flanking sound, (usually between 4 and 8 dB). We recommend you seek the advice of an Acoustician regarding the expected flanking allowance for your project.

Please see **Technical Handbook 5, (TH5)** for further guidance.

Table 2 - Scotland	
New build separating wall (To meet TH5)	$D_{nT,w}$ 56 dB
Conversion separating wall (To meet TH5)	$D_{nT,w}$ 53 dB
Scotland internal partitions (within dwellings)	No Requirement

Ireland
Technical Guidance Document E, (TGDE) requires residential separating partitions to be able to achieve an on-site acoustic performance shown as DnT,w dB. This must be proven by on-site testing. Please note; when calculating the expected on-site performance of separating walls you will need to factor in an allowance for on-site flanking sound (usually between 4 and 8 dB). We recommend you seek the advice of an Acoustician regarding the expected flanking allowance for your project.

Please see **Technical Guidance Document E, (TGDE)** for further guidance.

Table 3 - Ireland	
New build separating wall (To meet TGDE)	$D_{nT,w}$ 53 dB
Conversion separating wall (To meet TGDE)	$D_{nT,w}$ 53 dB
Scotland internal partitions (within dwellings)	No Requirement

eekowall

Building Regulations

Thermal

Building Regulations for Thermal performance are concerned with minimum energy requirements for both the building fabric and CO_2 emissions. Although thermal performances through a single element (wall or roof etc.) are measured using U-Values, compliance can only be demonstrated through Standard Assessment Procedure calculations (SAP). Where restricted air flow to help control thermal transfer is required to separating walls, the cavity can be fully filled with soft fibre insulation in order to achieve a 0.0 ((W/m²K)) U-Value, which will contribute towards the building's overall SAP calculation.

Please see the following documents for further guidance:

- England and Wales - **Approved Document L, (ADL)**
- Scotland - **Technical Handbook 6, (TH6)**
- Ireland - **Technical Guidance Document L, (TGDL)**

Sustainability and Mobility

The Building Regulations for Sustainability and Mobility require buildings to be designed with future use in mind, i.e. walls in all bathrooms and WCs to be capable of firm fixing and support for future adaptations such as grab rails. In order to achieve this requirement, plywood or other non-combustible high-performance linings are commonly installed within partition cavities or as a lining layer to provide a direct fixing capability.

Please see the following documents for further guidance:

- England and Wales - **Approved Document M, (ADM)**
- Scotland - **Technical Handbook 7, (TH7)**
- Ireland - **Technical Guidance Document M, (TGDM)**

Secured by Design

Secured by Design (SBD) is a national police crime prevention initiative that aims to reduce burglary and other crime using the principles of good design and appropriate physical security. Common requirements include installing security mesh or impact resistant linings installed to lightweight separating walls to hinder access through the wall.

Please see **www.securedbydesign.com** for further guidance.

Service Installations

All service installations should be compliant with their relevant Code of Practice. Where required they should be installed or adequately protected to prevent them being damaged by drywall screws etc. (This risk is greatly reduced when installing eekowall panels, as the drywall screws are installed prior to the services.) Ensure all service penetrations are fully made good, and that they or the services themselves do not impact on the performance of the partitions or linings. All fire-stopping systems etc. must be capable of supporting the drylining systems stated fire performance.

All guidance provided by eekowall is given in good faith and is not intended to give rise to a duty of care or to create a contractual relationship between eekowall and the recipient. Any guidance provided by eekowall is not intended to replace or act as a substitute for the advice you receive from other experts whom you may consult, for example, Architects, Engineers or Surveyors.

eekowall

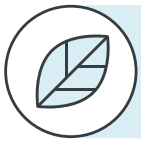
Symbols

The following symbols are used throughout this brochure:

Fire
Fire performances are stated as individual values for integrity and insulation, i.e. 30/30, 60/60, 90/90 or 120/120 minutes, (Integrity/Insulation).

Acoustics
Acoustic performances are stated as a laboratory score (R_wdB), where applicable the C_{TR} factor will be shown in brackets, i.e. R_w (R_w+C_{TR}) = 64 (58) dB.

Stability
Duty ratings are stated as Medium, Heavy or Severe, and maximum heights are stated in millimetres.



Sustainability & Mobility
References to Approved Document L (Conservation of fuel and power), or Approved Document M (Access to and use of buildings).

Service Installations
References to the relevant Approved Documents and Codes of Practice for the design and installation of mechanical & electrical services.

Temperature
References to Approved Document L (Conservation of fuel and power), and Standard Assessment Procedure calculations (SAP). Where applicable U-Values are shown as (W/m²K)

eekowall ltd
78-80 Old Broad Street
London
EC2M 1QP

Tel: 0207 1948045

E: technical@eekowall.com

W: www.eekowall.com

eekowall