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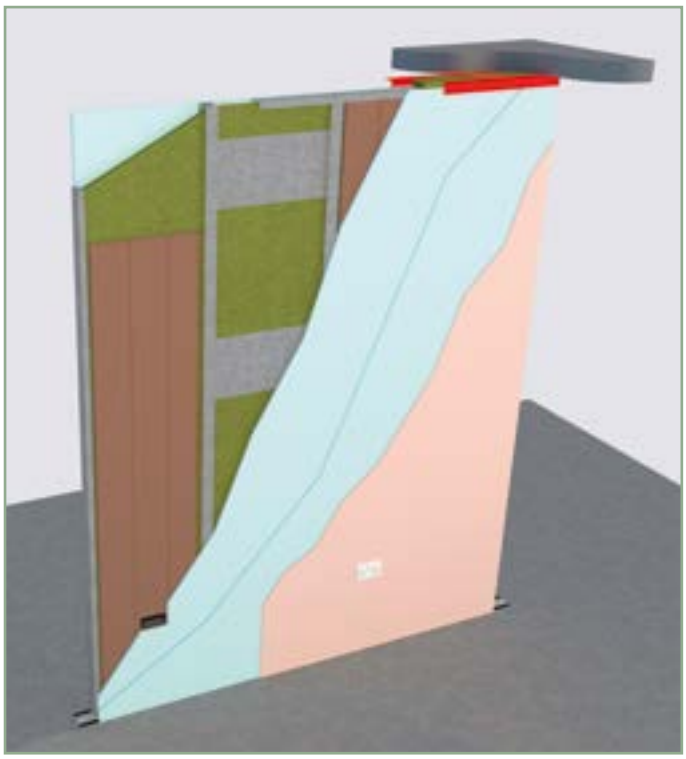
Shaftwalls

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



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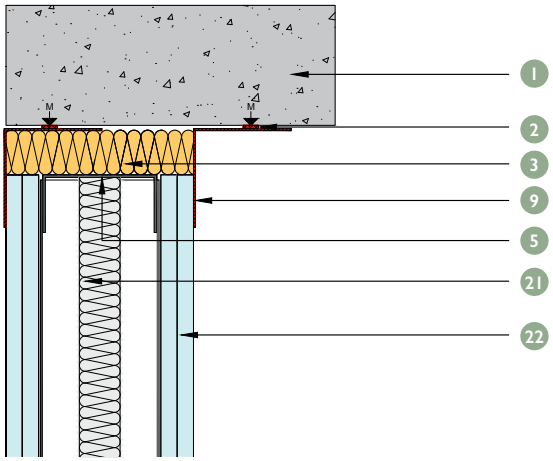
Shaftwalls Installation Guide

- 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

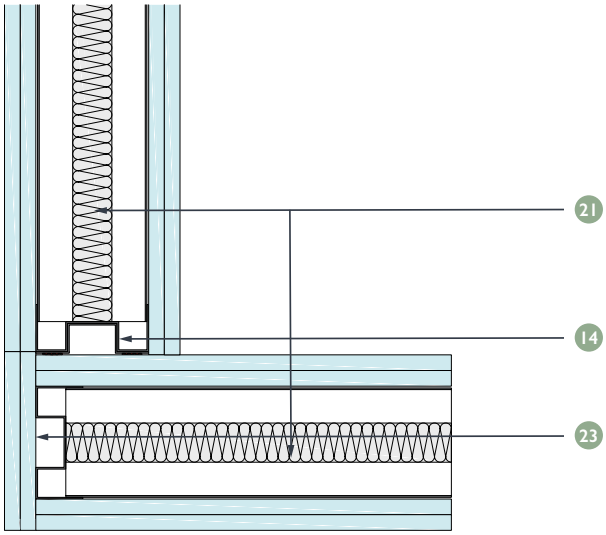
**The first and last fixings should be installed within 50mm of frame ends*

Typical Details

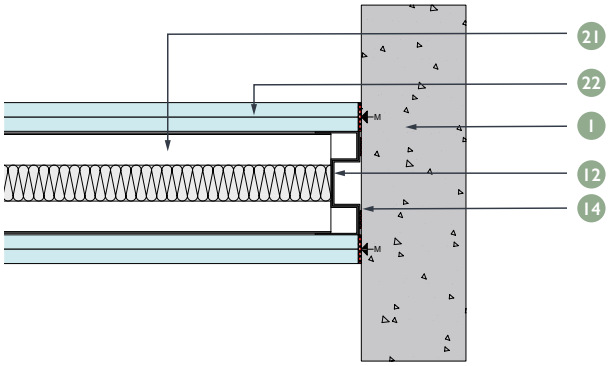
EW-SW 100/120 Head Detail



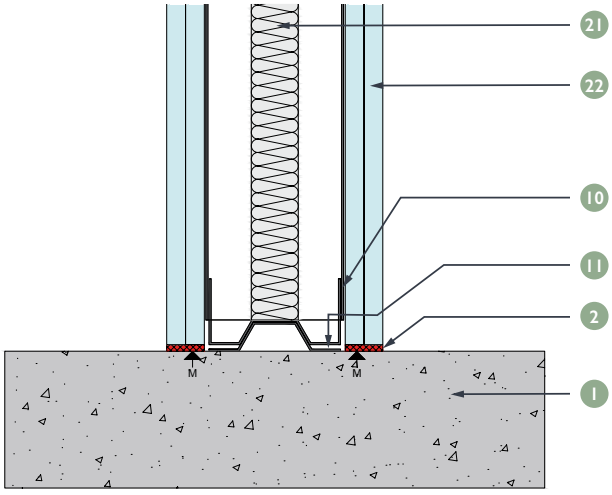
EW-IW 100/120 Corner Detail



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

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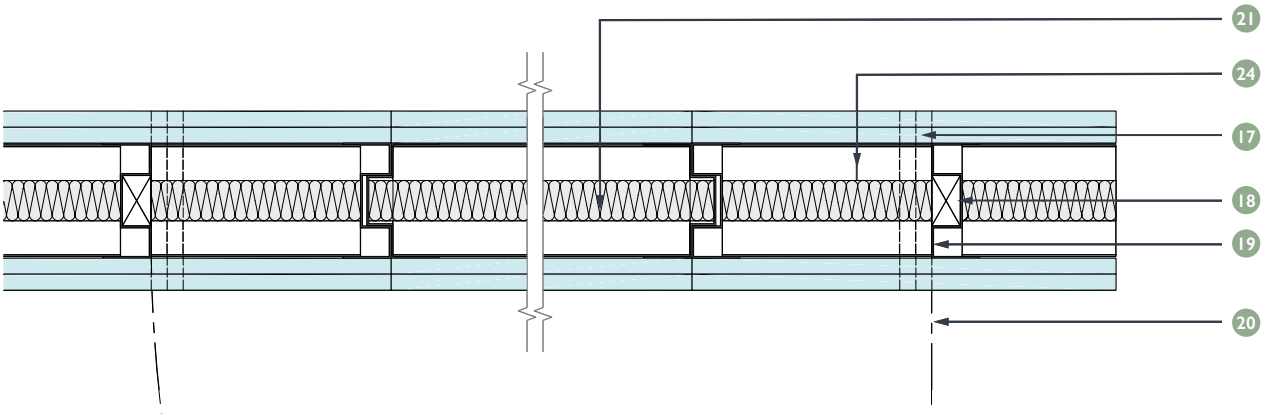
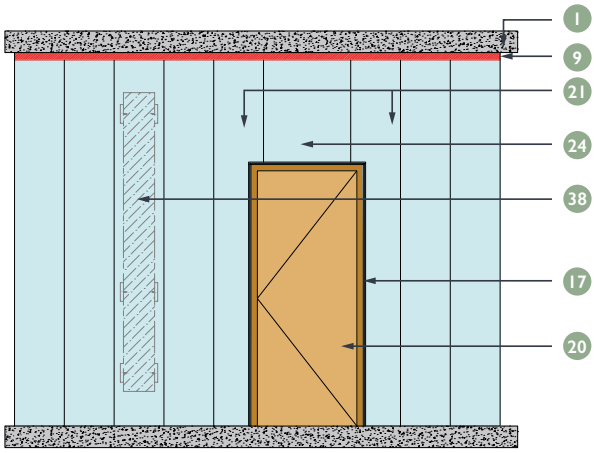
Typical Details

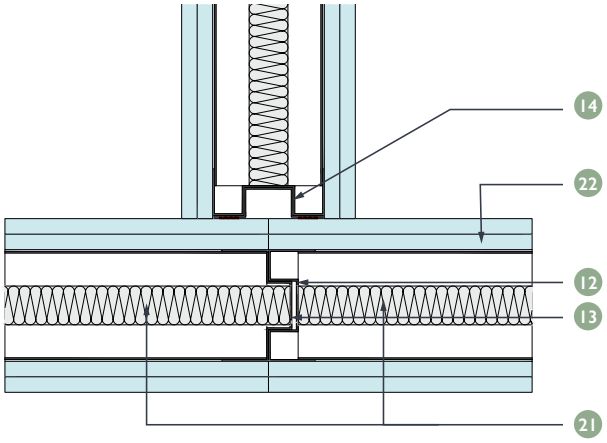
EW-SW 100/120 Door Detail



EW-SW 100/120 Shaftwall Door Elevation Detail



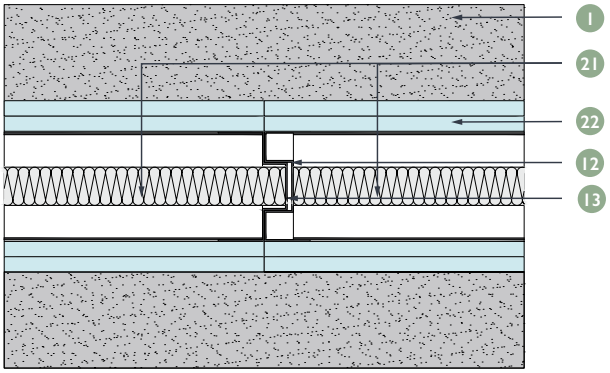
EW-SW 100/120 Tee Detail



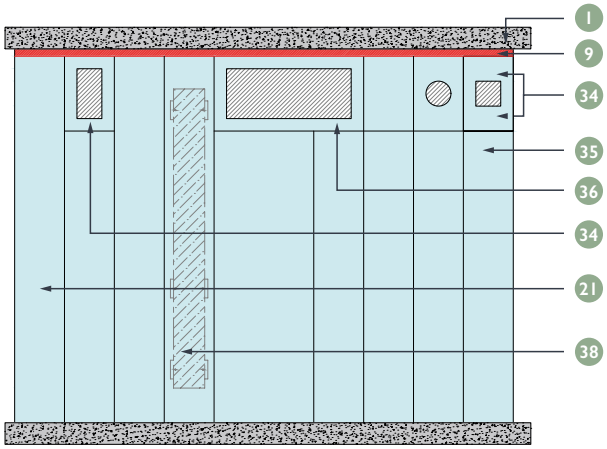
Key	
1	Substrate (by others)
9	60x60x1.2mm Steel Angle
12	EW W70 Stud
13	EW T70 Stud
14	Panel Filled With Isover Acoustic Partition Roll @ 800mm c/c, Staggered Each Side And 1 Bead of Eekowall Adhesive Each Side
17	Door Opening Reveal Boards
18	Timber Ground To Pick Up Door Fixing
19	Door Jamb Stud Within 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

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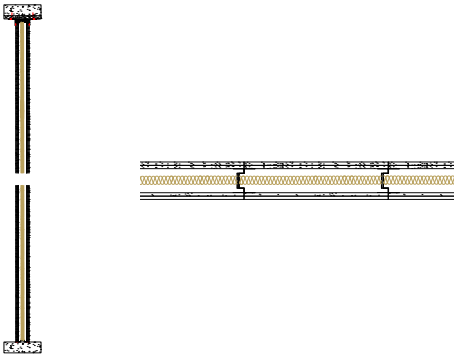
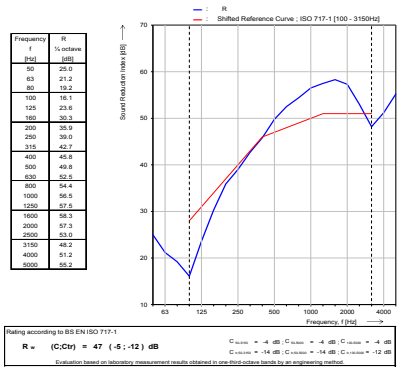
System Performance Summary

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: 2015
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





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 EN1364-1:2015 (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.

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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.