

INSTALLATION & TECHNICAL MANUAL



- **Grey Board EIFS Direct Fix Wall Panel System**
(Plain EPS Panel, 75mm / 100mm)
- **Grey Board EIFS Cavity Wall Panel System**
(Pre-coated EPS Panel, 50mm / 75mm / 100mm)



ULTRATEX Wall Cladding and Coatings Pty Ltd

Sales & Warehouse: 15A Malcolm Court, KEALBA VIC 3021

M: 0412 310 217 **P:** (03) 9364 4489 **F:** (03) 9364 4491

Factory: 4/11 Malcolm Court Kealba Victoria 3021



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The Ultratex Grey Board Wall Cladding System is certified under the CodeMark Australia Scheme (Certificate No: CM40456), confirming compliance with the Building Code of Australia (BCA). A copy of the CodeMark Certificate of Conformity is available upon request

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Introduction to Grey Board EIF Wall Cladding System

Description

Ultratex Grey Board EIFS Wall Cladding System is a complete façade system for use on exterior walls of homes and commercial buildings; it is weatherproof, stable and durable, and it provides good exterior insulation, commonly referred to as exterior insulation and finishing systems (EIFS)

Ultratex Grey Board EIFS Wall Cladding System is made from expanded polystyrene (EPS) moulded panels which are secured, reinforced and coated with an exterior coating system to give an exterior wall a durable structure and weatherproofing properties. It has been tested in accredited laboratories to meet required Australian Standards and is within the performance requirements of the Building Code of Australia (BCA).

Attribute & Application

Ultratex Grey Board EIFS Wall Cladding System is quickly and easily installed on timber framed buildings. It adds minimum weight to the structure and has good R value rating. It contributes to the improvement of the building's energy efficiency by providing first stage insulation and weatherproofing. Grey Board EPS panels can accept a range of approved polymeric renders and decorative finishes. This means any number of styles can be achieved amongst them – traditional, heritage, and modern.

Ultratex Grey Board EIFS Wall Cladding System Summary

Ultratex offers two tested Grey Board Wall Cladding Systems as follows;

- **Grey Board EIFS Direct Fix Wall Panel System**, and
- **Grey Board EIFS Cavity Wall Panel System**

1. Grey Board EIFS Direct Fix Wall Panel System

Important features

- Plain polystyrene EPS panels

General Description

- The Grey Board EIFS Direct Fix Wall Panel System is constructed using 75mm or 100mm thick plain polystyrene EPS panels fastened and fixed directly onto the timber stud frame having a weatherproof breathable wall wrap (sarking) in between.
- Starter channel bead is fixed on to the timber frame in required size.
- The panels are fastened directly into the studs using 10G bugle batten screws, H8, Class 3 and 48mm diameter polypropylene washers at maximum screw spacing of 300mm away from corners, and maximum 220mm within 1200mm of corners.
- The panel joints are then sealed with foam adhesive, corner angle beads are fixed, and the panel surface is rendered with Ultratex Grey Board Render Coating System having an embedded fibreglass mesh placed across the entire panel surface. The render coat has a nominal thickness of 6mm.

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Figure 1

Sectional view for Grey Board EIFS Direct Fix Wall Panel System

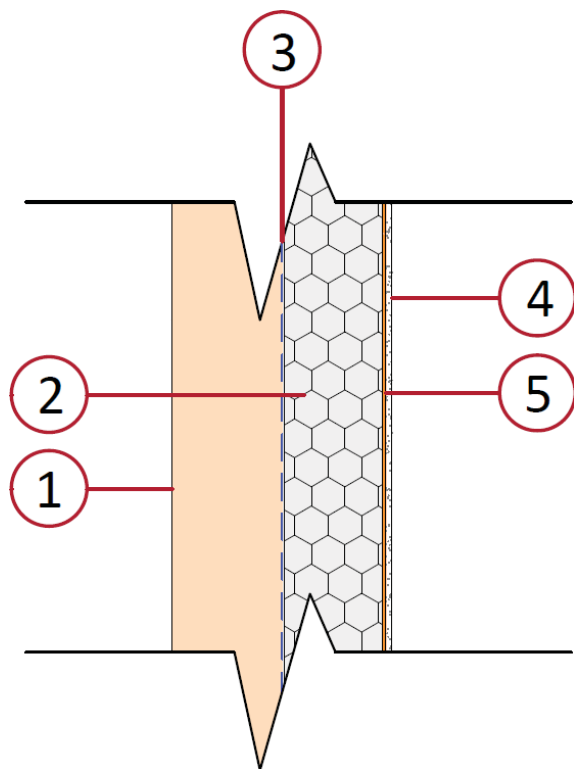


Figure 1

Grey Board EIFS Direct Fix Wall Panel System

1. Timber stud frame
90mm x 35mm per BCA and AS1684
2. Plain polystyrene EPS panel
3. Breathable wall wrap (sarking)
4. Ultratex Grey Board Render Coating System minimum 6mm thick
5. Fibreglass mesh embedded into render – 160gsm 5mm x 5mm

2. Grey Board EIFS Cavity Wall Panel System specifications;

Important features

- Pre-coated polystyrene EPS panels
- Polystyrene EPS batten to create cavity – (for improved water management system)

General Description

- The Grey Board EIFS Cavity Wall Panel System is constructed using 50mm, 75mm or 100mm thick pre-coated polystyrene EPS panel, 25mm thick by 35mm wide 'H' Grade polystyrene battens with bottom cavity closer. Weatherproof breathable wall wrap (sarking) is fixed directly to the standard timber stud frame
- The 25mm x 35mm battens are directly fixed onto the breathable wall wrap using 2.88mm x 40mm galvanized nails fastened onto the studs.
- Starter channel bead is fixed on to the timber frame if required sizes.
- The panels are then fastened and fixed on to the battens and into the timber studs using 10G bugle batten screws, H8, Class 3 and 48mm diameter polypropylene washers at maximum screw spacing of 300mm, 220mm away from corners, and maximum 220mm within 1200mm of corners.

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- The panel joints are then sealed with foam adhesive. Corner angle bead are fixed, and a 200mm strip of 160gsm adhesive fiberglass mesh is placed over panel joints. The system is then rendered with Ultratex Grey Board Render Coating System at a nominal thickness of 6mm.

Figure 2

Sectional View for Grey Board EIFS Cavity Wall Panel System

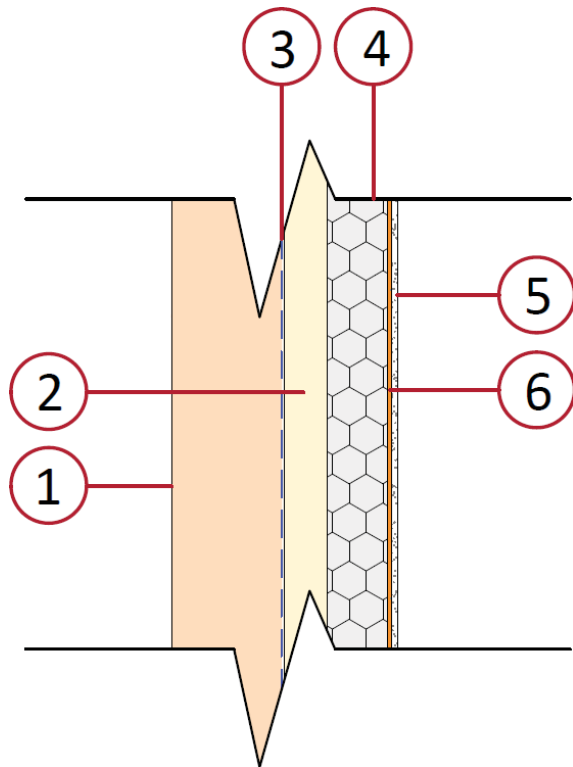


Figure 2

Grey Board EIFS Cavity Wall Panel System

1. Timber frame 90mm x 35mm per BCA and AS 1684
2. Polystyrene batten 'H' Grade (23kg/m³) 25mm thick, 35mm width
3. Breathable wall wrap (sarking)
4. Pre-Coated polystyrene EPS panel
5. Ultratex Grey Board Render Coating minimum 6mm thick
6. Fibreglass mesh embedded into panel render

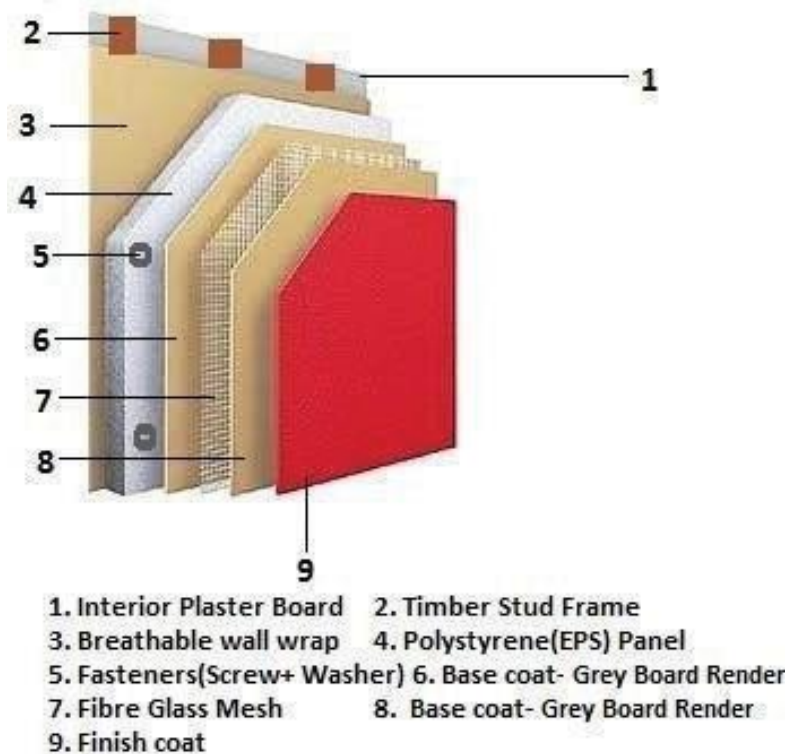
Panel Properties & Thermal Rating

- Ultratex Grey Board EPS Panel is an expanded polystyrene EPS material. The minimum physical properties of the EPS panel comply with AS 1366 Part 3 –1992 for rigid cellular polystyrene moulded Class S Grade.
- Ultratex Grey Board EIFS Wall Cladding System can provide a weatherproof face to a building, when correctly installed with breathable wall wrap (sarking) and finished with the proper detailed flashings, and approved coating system as mentioned in this manual.
- The 'R' value is a measure of thermal resistance; it is expressed as a thickness of the material divided by thermal conductivity.

Table: 1 Material Density & Panel Thermal Resistance – ‘R’ Values

Density EPS panels min. ‘S’ Grade	R Value at 23°C (m² K/W) Panel Thickness		
	50mm	75mm	100mm
16.5kg/m³	1.20	1.8	2.55

Grey Board EIFS Direct Fix Wall Cladding System – Stage View



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Design Criteria & Product Testing

Installation Design

Installation and fixing requirements must – without exception – be in accordance with details stipulated in the manual. This is provided for use by designers and builders to describe the performance and construction requirements for use of Grey Board EIFS Wall Cladding System.

Grey Board Cladding system has been tested, appraised and certified to the following performance requirements of the NCC, BCA Volume 2.

- Structure: (H1P1 Structural stability and resistance to actions) tested and appraised for serviceability and strength under wind actions up to and including AS 4055 Wind Class N4w.
- Weatherproofing and Dampness: (H2P2 Weatherproofing, H2P3 Dampness) tested and appraised for resistance to moisture from the ground and the penetration of water. Clearance to finished ground level shall be to BCA requirements, e.g. in accordance with NCC Vol. Two & ABCB Housing Provisions Part 7.5.7.
- Energy Efficiency: (H6D2(1)(b)(i), Housing Provisions 13.2.5 External Walls) tested and appraised for total R-value performance.

National Construction Code (NCC)

The performance based NCC consists of solutions that enable a building to be constructed to achieve minimum levels of compliance. This may be demonstrated through compliance with a deemed-to-satisfy solution, or by a performance solution.

Any building system that is not described in the deemed-to-satisfy provisions can only demonstrate compliance via a performance solution.

This applies to external wall cladding systems that are not listed in BCA Volume 2, Part 7.5.

External walls are required to comply with all relevant performance requirements which may include structure, fire, weatherproofing, dampness, bushfire and energy efficiency.

Ultratex would be pleased to provide performance based design brief (PBDB) and performance solution report (PSR) templates for direct fix and cavity applications which reference this installation and technical manual.

Structural Design & Weatherproofing

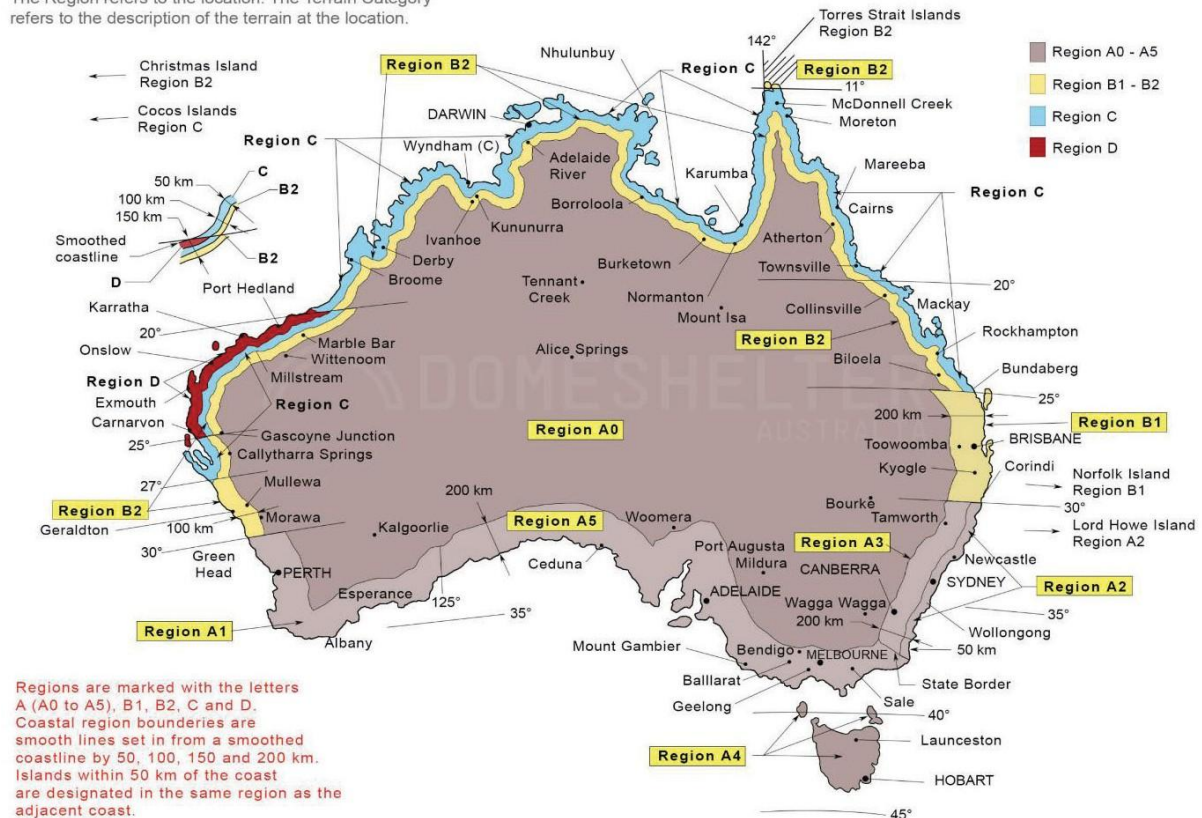
System design should consider factors such as:

• Class of building • Location – coastal or inland • Identify NCC performance requirements and any additional project specific needs • Wind design actions subject to local wind pressures • Self-draining cavity to allow drainage of any moisture ingress or condensation • Wall wrap – vapor permeable for condensation control & weatherproofing • Thermal (R-Value) – energy efficiency • Building height • Bush fire attack levels (BAL) • Acoustics ($R_w + C_{tr}$ values)	• Frame type, layout, design, stud spacing • Minimum panel thickness and fixing criteria based on wind design pressure and stud spacings • Colour selection – light reflective value recommended • Additional wall insulation to improve energy efficiency • Control joint installation • Penetrations & external fixings • All building projects are subject to fire control requirements within the NCC and all project designs should be assessed and approved by a fire engineer prior to installation.
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Ultratex Grey Board EIFS Wall Cladding System structural design and weatherproofing performance has been confirmed by testing and assessment by accredited testing laboratories and professional engineers.

Grey Board External Wall Cladding System has been designed and tested to withstand the wind loading requirements in the NCC for AS 4055 Wind Classifications up to N4w. The design wind loads for a particular building may only be determined by site classification and height of the building in accordance with AS 4055 Wind Loads for Housing, or AS/NZS 1170.2 as applicable.

The Region refers to the location. The Terrain Category refers to the description of the terrain at the location.



Grey Board EIFS External Wall Cladding System is not intended to act as wall bracing. Resistance to the design racking loads must be designed into the wall framing prior to installation.

Grey Board EIFS External Wall Cladding System is not load-bearing and control joints are required at regular intervals to allow for building movement. In all cases, Grey Board EIFS External Wall Cladding System may only be installed on buildings that conform to the requirements of AS 1684 or AS 1720.1.

AS 4055 design limitations include:

- Distance from ground level to the underside of eaves shall not exceed 6.0m
- Distance from ground level to the highest point of the roof, not including chimneys, shall not exceed 8.5m,
- Width including roofed verandas, excluding eaves, shall not exceed 16.0m, and the length shall not exceed five times the width, and
- Roof pitch shall not exceed 35 degrees pitch

Grey Board EIFS External Wall Cladding System applied to the walls of a building designed for wind loads in accordance with AS 4055, are capable of sustaining the design ultimate limit state wind loadings for Wind Classifications N1, N2 N3 and N4 (excluding AS 4055 Wind Classifications N5, N6, C1, C2, C3 and C4).

Grey Board thermal façade cladding non-cavity systems are not suitable for use in cyclonic regions.

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Grey Board EIFS External Wall Cladding System complies with the NCC performance requirements for weatherproofing and dampness confirmed by testing in accordance with the verification method H2V1 in the NCC. In this verification method, a test specimen is required to be constructed and tested that incorporates many of the common details found in normal construction practice including;

- Footer and header termination systems
- Windows or doors
- Electrical boxes
- Wall junctions
- Vertical and horizontal control joints
- Balcony drainage and parapet flashings

Fire Safety Performance

Grey Board EIFS External Wall Cladding System has not been tested for applications that require an FRL and its performance in this situation cannot be assumed. Grey Board EIFS External Wall Cladding System must not be installed less than 900mm from an allotment boundary or 1800mm from another building, as defined in 9.2.3(2).

Grey Board EIFS External Wall Cladding System consists of an EPS core that is made of fire-retarded expanded polystyrene tested in accordance with AS/NZS 1530.3.

Grey Board EIFS External Wall Cladding surfaces should not be exposed to temperatures more than 80°C for long periods due to the risk of softening and damage. Heat producing appliances e.g. BBQ's and patio heaters, hot water services, flues from heating appliances, all must be installed in accordance with manufacturers' requirements such that Grey Board EIFS External Wall Cladding System does not become heat damaged.

All heating producing appliances should be installed in accordance with the manufacturer's instructions and comply with the relevant building regulations and Australia Standards AS/NZS 5601, 3500.4 and 3000. Their exhaust vents and flues must be directed away from Grey Board EIFS Wall Cladding System surfaces.

Table: 2 Ultratex Grey Board EIFS Direct Fix Wall Panel System Configuration

System 1. Ultratex Grey Board EIFS Direct Fix Wall Panel System (plain EPS panels)		
Wind Category up to N4w (non-cyclonic)		
Timber frame and stud size – 90mm x 35mm or as per AS 1684 for timber frames		
Stud Spacing (max.)	600mm	
Fastener / Screw Fixing Centres (spacing)	300mm	
Qty of Screws and Washers Per 1.2m x 2.5m panel use 5 fasteners/stud (300mm c/c)	25	
Qty of Screws and Washers Within 1200mm from corners of buildings, Per 1.2m x 2.5m panel use 6 fasteners/stud 220mm c/c	30	
Edge Fixing Requirements When the panel is laid horizontally fix screw and washer 50mm from the top and 50mm from the bottom edge of the sheet to center of screw at maximum of 600mm stud spacing Fasteners for Panel Each fastener comprises: • 1 Galvanized 10G bugle batten screws, H8, Class 3 or Stainless steel 316 Class 4 screws for severe grade • 1 Plastic Washer 48mm Dia		
Plain EPS Panel Thickness & Size	Screw Size	Starter Channel Bead Size
75mm x 1.2m x 2.5m	100mm	75mm x 2.5m
100mm x 1.2m x 2.5m	125mm	100mm x 2.5m

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Table: 3 Ultratex Grey Board EIFS Cavity Wall Panel System Configuration

System 2. Ultratex Grey Board EIFS Cavity Wall Panel System (pre-coated EPS panels)		
	Wind Category up to N4 (non-cyclonic)	
	Timber frame and stud size – 90mm x 35mm or as per AS 1684 for timber frames	
	Stud Spacing (max.)	600mm
	Fastener/Screw Fixing Centres (spacing)	300mm
	Qty of Screws and Washers Per 1.2m x 2.5m panel use 5 fasteners/stud (300mm c/c)	25
	Qty of Screws and Washers Within 1200mm from corners of buildings, Per 1.2m x 2.5m panel use 6 fasteners/stud (220mm c/c)	30
	Edge Fixing Requirements When the panel is laid horizontally fix screw and washer 50mm from the top and 50mm from the bottom edge of the sheet to centre of screw at maximum of 600mm stud spacing Fasteners for Panel Each fastener comprises: • 1 Galvanized 10G bugle batten screws, H8, Class 3 or Stainless steel 316 Class 4 screws for severe grade • 1 Plastic Washer 48mm Dia Battens for Cavity System • 'H' Grade polystyrene (23kg/m³) • Size: 25mm thick x 35mm wide x 2.5m length Cavity Closer for Cavity System • 25mm width perforated aluminum angle L shaped, allows water to leave the cavity, perforated min. 1000mm² per linear meter. Attached to the frame at its bottom plate	
	Pre-Coated Panel Thickness & Size	Screw Size
	50mm x 1.2m x 2.5m	100mm
	75mm x 1.2m x 2.5m	125mm
	100mm x 1.2m x 2.5m	150mm
		Starter Channel Bead
		50mm x 2.5m
		75mm x 2.5m
		100mm x 2.5m

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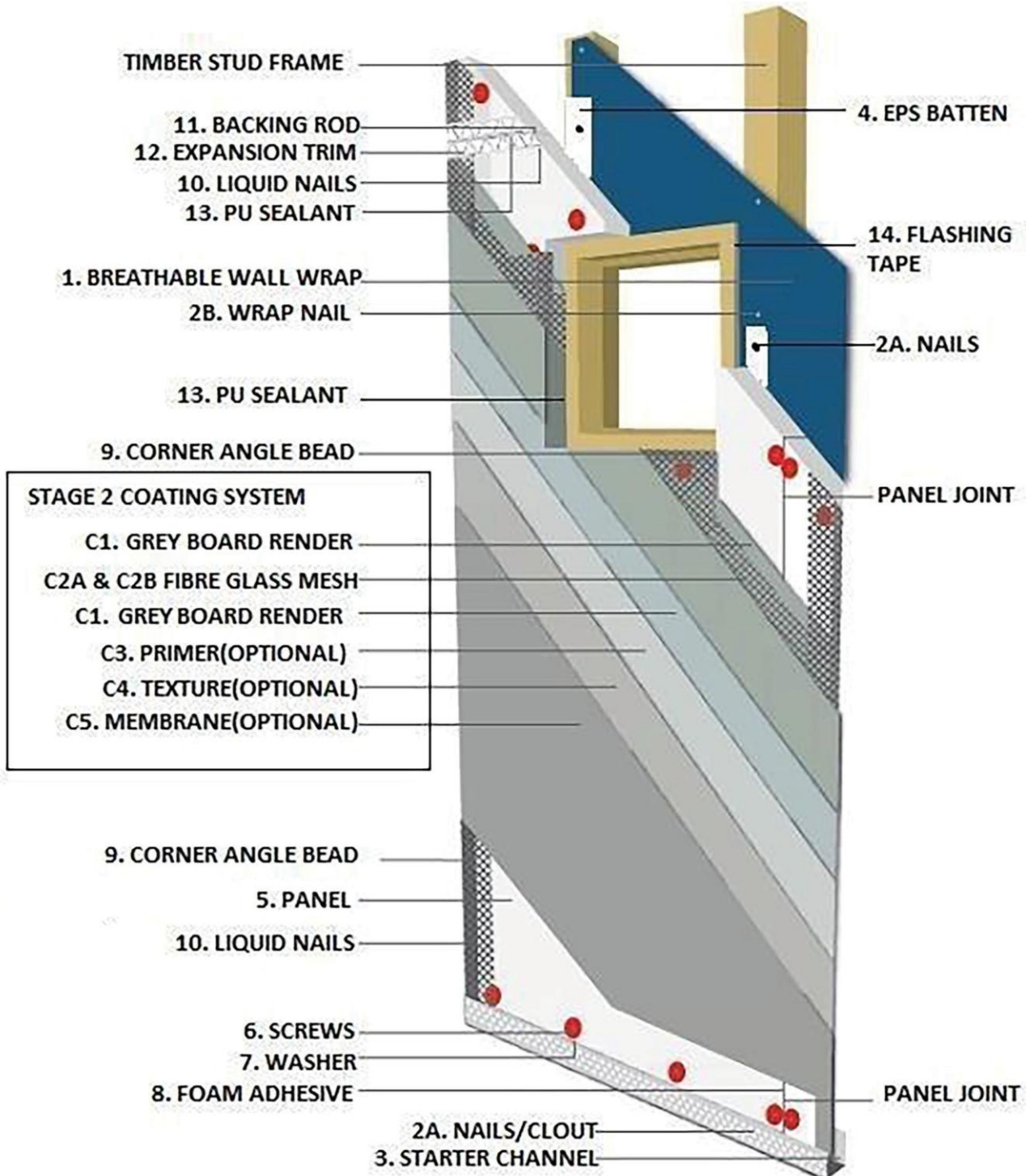
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Design Conditions

- All fastening must be protected against corrosion as set out in Part 4 and Appendix C of AS 4773.1:2010 Masonry in Small Buildings Part 1 – Design and particularly;
 - o for areas less than 1km from breaking surf; or less than 100m from salt water not subject to breaking surf; or within industrial areas (severe environments); Class 4 (R4) durability classification connectors and accessories shall be used (typically corrosion Grade 316 or 316L stainless steel or engineered polymer)
 - o for areas 1km or more but less than 10km from breaking surf or 100m or more but less than 1km from salt water not subject to breaking surf (marine environments), Class 3 (R3) durability classification connectors and accessories shall be used (typically connectors and accessories galvanized after manufacture – 470g/m² coating mass)
- The Ultratex Grey Board EIFS Cladding System is combustible as defined in the BCA and AS 1530.1 and must be located >900mm from boundaries or 1800mm from another build.

Ultratex Grey Board Wall EIFS Cavity Wall Panel System – Overview Installation & Coating



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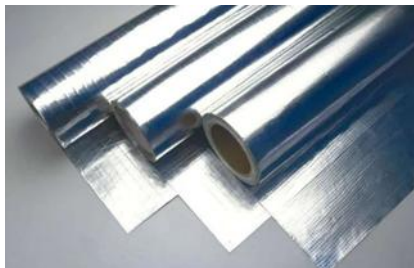
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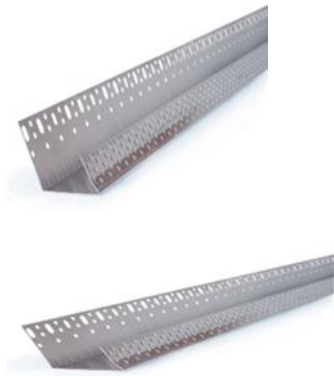
Material Check List for Grey Board EIFS Wall Cladding System		
Stage 1 – INSTALLATION		
	Image	Description/Specification/Size
No.		Timber Stud Frame – 90mm x 35mm (including bracing) The frame structure must be built in accordance with the Building Code of Australia (BCA) and with the relevant Australian Standards, for instance, AS 1684.
1		Weatherproof Breathable Wall Wrap (sarking) - Heavy duty – AS 4200.1.2017 – in accordance with this standard. It must have a flammability index (FI) not greater than 5 in accordance with AS 1530.2. - Sizes: 1.35m x 36.5m & 2.74m x 30.0m - Must be installed in accordance with AS 4200.1 and taped to the timber wall framing; at the wall perimeter; at all joins; and at all penetrations.
2A	 For starter channel/battens	2A – Nails/Clouts (for fixing starter channel & battens) - Galvanized steel flat head nails (hot dipped) - Size: 2.8mm x 40mm, pack Size: 250 or 500/box
2B	 For breathable wall wrap	2B – Wrap Nails Galvanized foil fixing nails for timber (pack – 500/box)

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3		Starter Channel Bead (in 90 & 120 Degree) <i>For size refer Table 2 & 3 above</i> • Aluminum channel, with weep holes • Sizes: 75mm, 100mm & 125mm in 2.5m lengths
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4		Battens (only for cavity system) - Type: 'H' Grade expanded polystyrene (23kg/m³) - Size: 25mm thick x 35mm wide x 2.5m length - Compliant with AS 1366.3									
5	 Plain polystyrene panel for direct fix system	Grey Board Panels Type: Plain (Raw) & Pre-coated polystyrene EPS panels Sizes: 1.2m x 2.5m x 50, 75, 100mm thicknesses as below.									
	 Pre-coated panel for cavity system	<table><tr><th>Direct fix System Plain Panel Thickness</th><th>Cavity system Pre-coated Panel Thickness</th></tr><tr><td>75mm</td><td>50mm</td></tr><tr><td>100mm</td><td>75mm</td></tr><tr><td></td><td>100mm</td></tr></table>	Direct fix System Plain Panel Thickness	Cavity system Pre-coated Panel Thickness	75mm	50mm	100mm	75mm		100mm	- Minimum S Grade manufactured in accordance with AS 1366.3 rigid cellular plastics sheets for thermal insulation – rigid cellular polystyrene – moulded (RC/PS – M). - Fire retardant to AS/NZS 1530.3
		Direct fix System Plain Panel Thickness	Cavity system Pre-coated Panel Thickness								
75mm	50mm										
100mm	75mm										
	100mm										
6		Fastener – Screws (for fixing panels) <i>For Size and Quantity refer Table 2 & 3 above</i> - Galvanised 10G bugle batten screws, H8, Class 3 - Stainless steel 316 Class 4 screws for Severe Grade - Sizes: 100mm , 125mm and 150mm long - Screws must comply with the corrosion protection requirements of AS 4773 (Part 4 and Appendix C)									

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7		Fasteners – Washers (for fixing panel) • Plastic (PP) • Size: 48mm Dia
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8		Foam Adhesive (for panel joints) The adhesive foam is expandable and is a pressurised canister dispensing system used for panel joints (panel to panel joining). • Fischer – Polyurethane adhesive foam – 750ml • Fischers – Gun cleaner solvent • Gun applicator
9		External Corner Angle Bead • Aluminum – 32mm x 32mm x 2.7m or 3m length for direct fix system • Aluminum with mesh 75mm x 125mm for cavity system • Stainless steel – for severe grade
10		Liquid Nails (for fixing corner beads / expansion trim) • Sika Bond (construction adhesive) or Selleys Liquid Nails (fast set only) • Size: 300g cartridge
11		Backing Rod (for expansion joints) • Polyurethane – 10mm Dia. x 210 m

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12		Expansion Joint Trim (UPVC) (for expansion joint) • Plastic expansion joint trims – UPVC • 3m Length
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13		PU Sealant (SIKAFLEX PRO) or equivalent Used around the windows, doors & expansion joints min. 5mm to max. 10mm tolerance to be considered • Sikaflex Pro-polyurethane paintable sealant • 600ml sausage & 310ml cartridge • Paintable flexible adhesive sealant. Selleys Flex Seal at horizontal and vertical control joints)
14		Flashing Tape For use around window and door joinery and all openings on panel for fixtures – to be installed by the installer during installation and building wrap to be taped and sealed with tape. • Flashing tape is to comply with AS 2904 – 1995 • Bitumen or similar water proof adhesive tape, aluminium adhesive foil tape • Sizes – 75mm x 50m & 100mm x 50m roll
15		Damp Proof Course • Waterproofing between concrete slab • Bitumen PE roll (as per AS 2904 – 1995) • Sizes: 110mm x 20m & 300mm x 20m roll

	Stage 2 – COATING SYSTEM	
C1		Ultratex Grey Board Render (base coat application) • Pack: 20kg bag (57 bags / pallet) • Coats: 2 coats (render thickness min. 6mm) • 3.5 to 4m² per bag @ 3-5mm thickness
C2A		Alkali Resistant Fibre Glass Mesh • Used across entire panel for direct fix wall system having plain polystyrene panels, embedded into render wet on wet across entire panel, overlapping mesh joints 100mm • Type: 5mm x 5mm – 160gsm • Size: 1.2m x 50m roll • Strength 1800N/50mm warp, 1955N/50mm weft compliant with Q/NSQ01-1999.
C2B		Alkali Resistant Fibre Glass Jointing Mesh • Used on joints for cavity wall system having pre-coated polystyrene panels • Type: 5mm x 5mm – 160gsm • Size: 200mm x 50m • Strength 1800N/50mm warp, 1955N/50mm weft compliant with Q/NSQ01-1999.
C3		Ultratex Primer – OPTIONAL • Apply one coat of primer using a 10-12mm nap roller • Pack: 15 litre pail – coverage 100 m²/pail @ WFT 75-100uM
C4		Ultratex Texture – OPTIONAL • Apply one coat of trowel texture or roll on text • Pack: 15 litre – coverage medium trowel tex> 12m²/pail

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C5		Ultratex Membrane – OPTIONAL • Apply one coat of membrane using a 20-30mm nap roller • Pack: 15 litre pail – coverage 60-70 m²/pail
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Installation & Coating Overview Guide

Installation – Stage 1

Preparation

Prior to installing EPS panels, ensure that solid blocking are installed as per approved building standards for installation of hot water systems, air-conditioning units, clothes lines, etc. Walls must be ($\pm 5\text{mm}$) for best results. Breathable wall wrap (sarking) must be fixed to all areas where EPS panels are being installed, directly on stud frame using foil fixing nails with silver side facing inwards towards stud frame.

Cutting

For most accurate, clean and minimal mess cutting, it's recommended to use a diamond tipped masonry blade or fibre cement blade on a hand power saw. For the best results with intricate cutting, a hand saw, or hot knife must be used.

Fixing Process

EPS panels are installed vertically or horizontally. In direct fix system, starter channel bead is nailed to the timber frame bottom panels and screwed directly to the stud frame panel via breathable wall wrap (sarking). In cavity system, cavity closer is nailed to the frame-bottom plate, battens fixed via breathable wall wrap (sarking) to the stud frame, starter channel bead is nailed to the bottom plate, panels are thereafter screwed onto the frame via the 25mm batten as spacers. Screw heads and washers must be slightly recessed into surface of the panel to ensure there are no raised areas and positioned at a maximum of 300mm centres. All joints between panels must be glued with expanding foam adhesive. All large openings in panel for windows, doors, meter box and other penetrations should be filled with expanding foam and sealed with aluminum flashing tape directly to the wall wrap (sarking).

All gaps along the window, doors and other fixtures must be properly sealed with PU sealant after completion of rendering.

EPS panels are not to be glued to stud frame. This will allow the frame to expand and contract without stressing the external coating.

Back Blocking of Stud Joints

Where sheet sides or ends do not finish on a stud, solid back blocking must be installed to strengthen and align joints. Back blocks are cut off from stud material.

The back blocks can be placed aligned with the joint or placed at 300mm centres perpendicular to the joint. Back blocks are to be nailed securely to the frame.

External Corners Angles, Starting Beads & Cavity Closer

Every external corner and any exposed areas such as windows, doors, roof line etc., must be protected with a corner angle bead. This in turn will protect the panel and provide a clean finish line for coating. A starter channel bead must be used at the bottom of the EPS panels which act as a drip mould for moisture to escape as they have weep holes approximately every 200mm. In case of cavity system, cavity closers have to be installed first to the frame bottom plate via the breathable wrap.

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Expansion/Control Joints

Correct building practice requires that 10mm wide vertical expansion joints must not exceed 5 metres where the length of a wall is greater than 8 metres. 10mm wide horizontal expansion joints must not exceed more than 3 metres.

It is imperative that a 10mm wide expansion joint occurs when EPS panels meets other substrates.

After the installation and preparation of the EPS panels, the panels must be coated as per coating system – AS FOLLOWS:

COATING SYSTEM – STAGE 2

Grey Board EIFS Coating System consists of the following steps: (Step 1. Mandatory)

Step 1. Grey Board Render – Base Coat – C1 & C2A & C2B grey board render plus mesh

Step 2. Primer Coat – Ultratex Primer – C2 – optional – apply one coat of primer

Step 3. Texture Coat – Ultratex Texture – C3 – optional – apply one coat of texture

Step 4. Topcoat – Ultratex Membrane – C4 – optional – apply one coat of membrane

For Grey Board EIFS Direct Fix Wall Panel System (Type of panel: plain polystyrene)

Product: C1 and C2A

- Application – base coat: 2 coats of grey board render with mesh embedded across entire panel (using 1.2m x 50m roll)
- Add one (1) 20kg bag of grey board render to 3.5-4.0 litres of clean water using a power stirrer to mix until the consistency is smooth and lump free. Allow the mix to stand for 5 minutes, remix before use or before adjusting consistency if required.
- Apply a 3-5mm basecoat of grey board render onto the panel using a steel trowel with enough pressure to adhere the product. Whilst the basecoat is wet embed a full layer of alkali resistant 160g/m² (5mm x 5mm) fiberglass mesh ensuring that the mesh pieces overlap by a minimum of 100mm at mesh joints. Panel joints should be evenly covered with the same embedded mesh (avoid overlap of mesh joints near the main panel joint). Strips of mesh at 45-degree angle or equivalent, 300mm long by 150mm wide, should be embedded across the corner of all window and door openings.
- In the same sequence apply another coat of render at a thickness of 2-3mm on top of the full mesh, embedding the mesh between these layers of render. On setting use a straight edge and screed surface, thereafter, using a polystyrene float, finish the surface to give an even and level finish.
- Grey board render should be of minimum 6mm thick.
- Do not apply render over expansion joints.
- Grey board render should be completely dry before application of top coats.

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For Cavity Wall Panel System: (Type of panel: Pre-coated)

Products: C1 & C2B

- Application – Base coat: 2 coats of grey board render with 200mm mesh embedded on panel joints only.
- Apply a 3-5mm base coat of grey board render onto the panel using a steel trowel with enough pressure to adhere the product. Whilst the base coat is wet embed 200mm mesh across panel joint only [160g/m² (5mm x 5mm) fiberglass mesh]. Panel joints should be evenly covered with the same embedded mesh (avoid overlap of mesh joints near the main panel joint). Strips of mesh at 45-degree angle or equivalent, 300mm long by 150mm wide, should be embedded across the corner of all window and door openings.
- In the same sequence apply another coat of render at a thickness of 2-3mm on top of the full mesh, embedding the mesh between these layers of render. On setting use a straight edge and screed surface, thereafter, using a polystyrene float, finish the surface to give an even and level finish.
- Grey board render should be of minimum 6mm thick.
- Do not apply render over expansion joints
- Grey board render should be completely dry before application of topcoats.

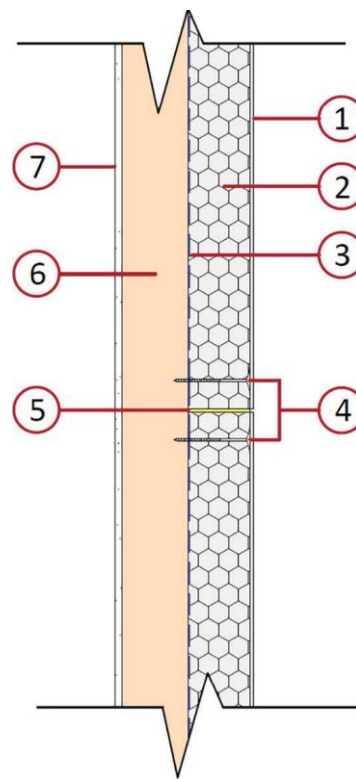
For details of render application refer to Product Data Sheet on Grey Board Render in this manual.

Application of **Ultratex Primer**, **Ultratex Texture** and **Ultratex Membrane** are optional products for both the systems and can be replaced by products equivalent to the Ultratex brand, it is however important to apply the recommended coating system for exterior performance and durability.

Installation & Fixing Details

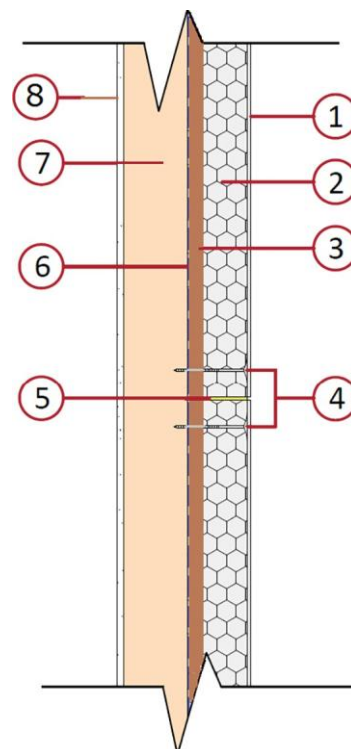
Horizontal Joint – Direct Fix System

1. Grey board render coating minimum 6mm thick with embedded mesh
2. Plain polystyrene EPS panel
3. Breathable wall wrap (sarking)
4. Fasteners- screws and washers
5. Foam adhesive (panel joint)
6. Standard timber stud frame 90mm x 35mm
7. Internal plasterboard



Horizontal Joint – Cavity System

1. Grey board render coating minimum 6mm thick with embedded mesh
2. Pre-coated polystyrene EPS panel
3. Batten EPS -'H' Grade 25mm x 35mm
4. Fasteners- screws and washers
5. Foam adhesive (panel joint)
6. Breathable wall wrap (sarking)
7. Standard timber stud frame 90mm x 35mm
8. Internal plasterboard



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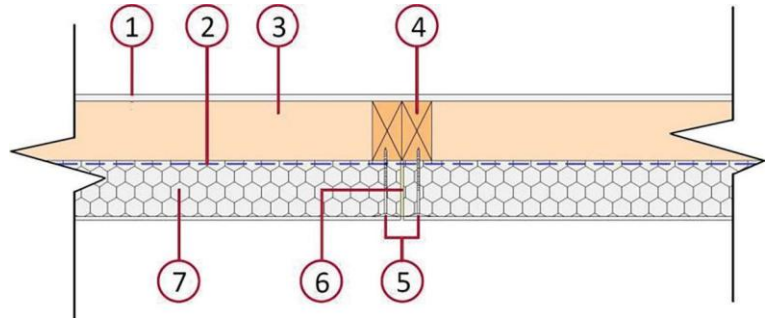
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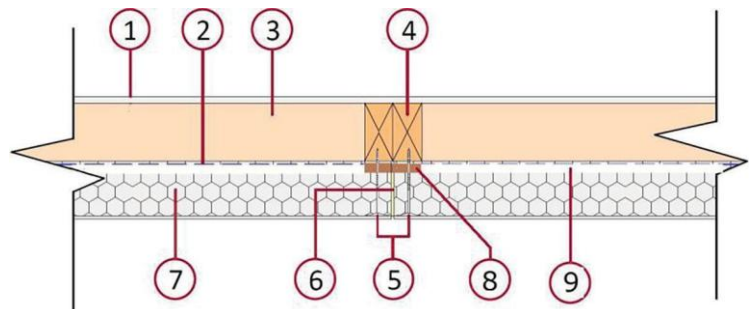
Vertical Joint – Direct Fix System

1. Internal plasterboard
2. Breathable wall wrap (sarking)
3. Standard timber stud frame 90mm x 35mm
4. Double stud – back block 90mm x 45mm
5. Fasteners – screws and washers
6. Foam adhesive (panel joint)
7. Plain polystyrene EPS panel



Vertical Joint – Direct Fix System

1. Internal plasterboard
2. Breathable Wall Wrap (sarking)
3. Standard timber stud frame 90mm x 35mm
4. Double stud – back block 90mm x 45mm
5. Fasteners – screws and washers
6. Foam adhesive (panel joint)
7. Pre-coated polystyrene EPS panel
8. Batten EPS – 'H' Grade 25mm x 35mm
9. Cavity – 25mm



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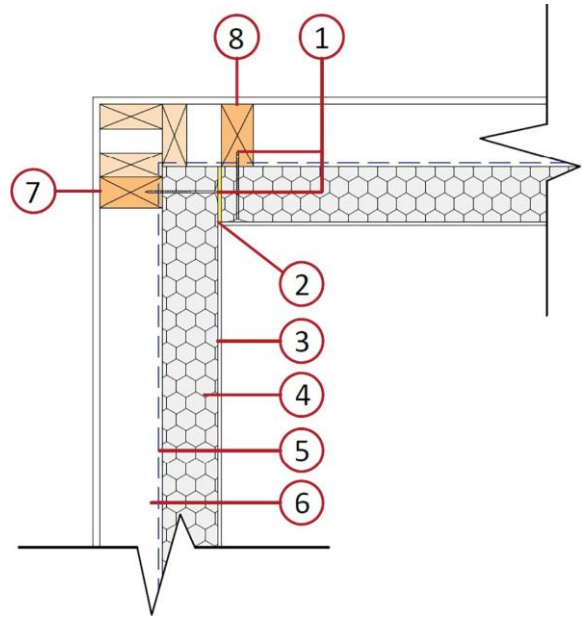
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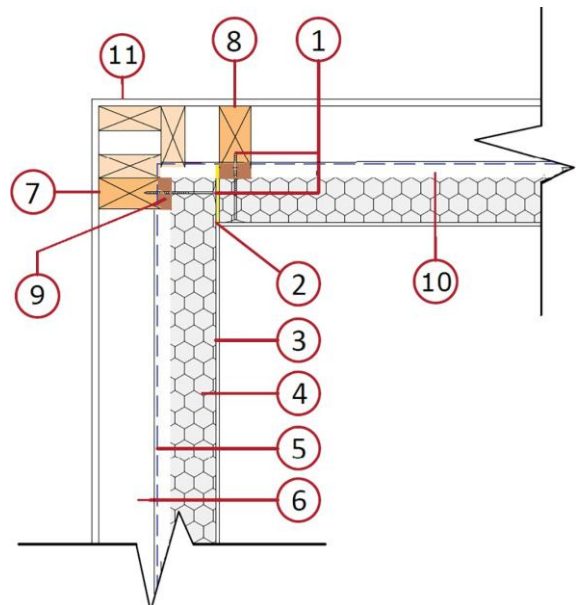
Internal Corner – Direct Fix

1. Fasteners – screws and washer
2. Foam adhesive (panel joint)
3. Grey board render coating minimum 6mm thick with embedded mesh
4. Plain EPS panel
5. Breathable wall wrap (sarking)
6. Standard timber stud frame 90mm x 35mm
7. & 8. Stud – back block 90mm x 45mm



Internal Corner – Cavity System

1. Fasteners – screws and washer
2. Foam adhesive (panel joint)
3. Grey board render coating minimum 6mm thick with embedded mesh
4. Pre-coated EPS panel
5. Breathable wall wrap (sarking)
6. Standard timber stud frame 90mm x 35mm
7. Stud – back block 90mm x 45mm
8. Stud – back block 90mm x 45mm
9. Batten EPS - 'H' Grade 25mm x 35mm
10. Cavity – 25mm
11. Internal plasterboard



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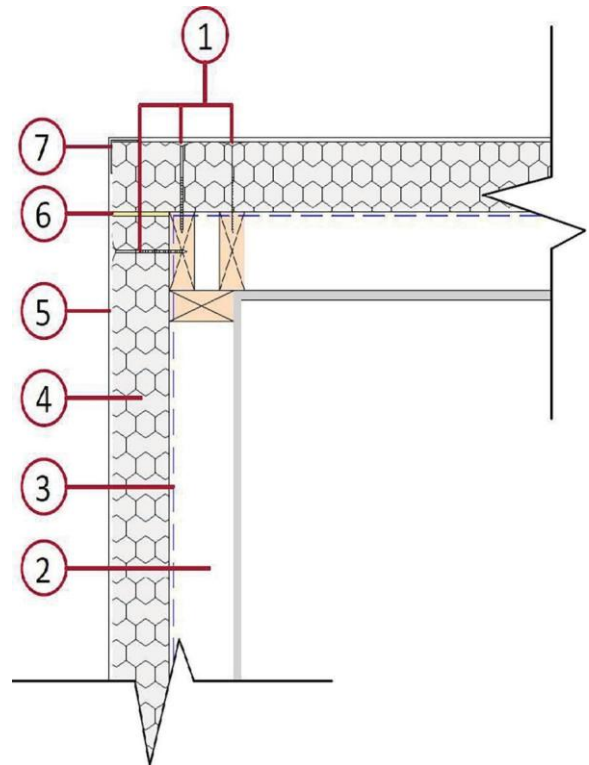
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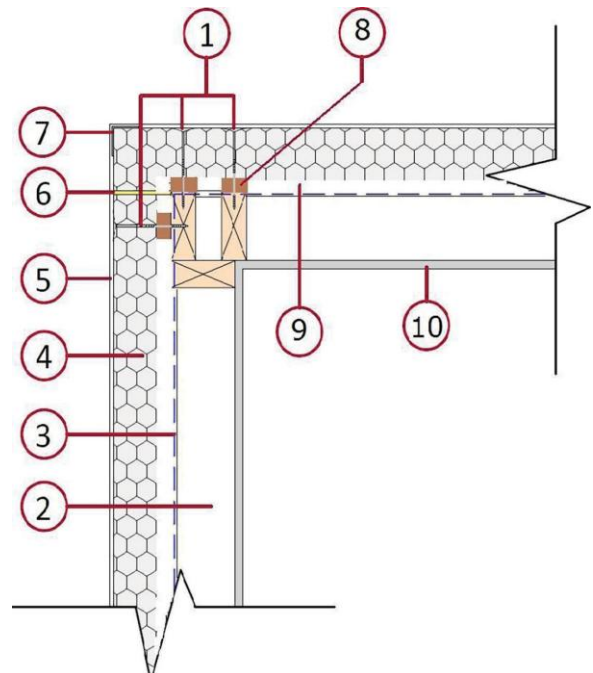
External Corner – Direct Fix

1. Fasteners – screws and washer
2. Standard timber stud frame 90mm x 35mm
3. Breathable wall wrap taped to frame
4. Plain EPS panel
5. Grey board render coating minimum 6mm thick with embedded mesh
6. Foam adhesive (panel joint)
7. External corner angle bead



External Corner – Cavity System

1. Fasteners – screws and washer
2. Standard timber stud frame 90mm x 35mm
3. Breathable wall wrap (sarking) taped to frame
4. Pre-coated EPS panel
5. Grey board render coating minimum 6mm thick with embedded mesh
6. Foam adhesive (panel joint)
7. External corner angle bead
8. Batten EPS -'H' Grade 25mm x 35mm
9. Cavity – 25mm
10. Internal plasterboard



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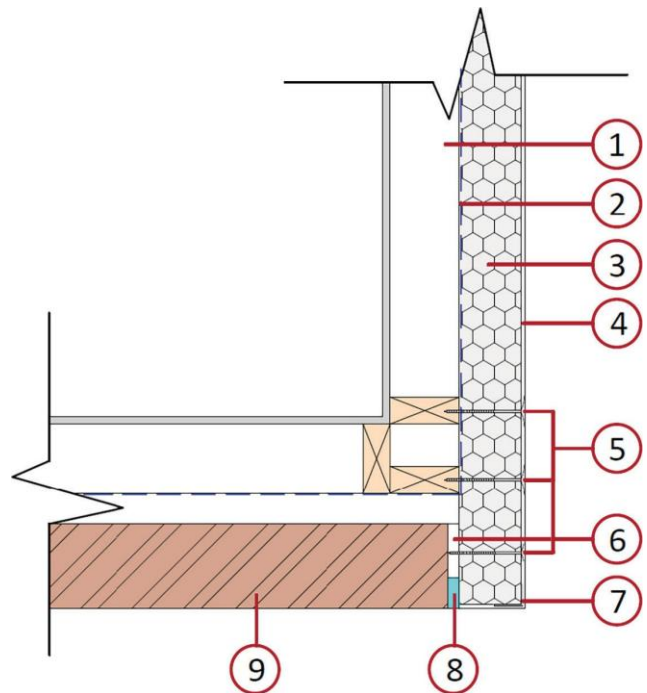
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Panel & Brick External Corner – Direct Fix

1. Standard timber stud frame 90mm x 35mm
2. Breathable wall wrap (sarking) taped to frame
3. Plain EPS panel
4. Grey board render coating minimum 6mm thick with embedded mesh
5. Fasteners – screws and washers
6. Cavity between substrate – 8mm to 10mm for sealing
7. External corner angle bead
8. Caulking with backing rod and filled with PU sealant (Sikaflex Pro)
9. Brick veneer



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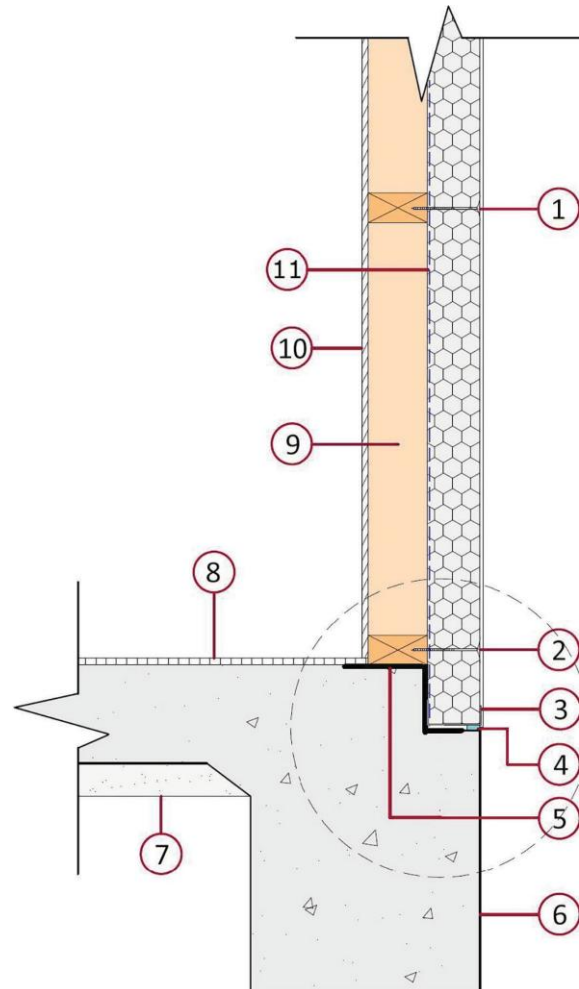
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Figure 8A

Panel Rebate Slab Details – Section View – Direct Fix System

**Figure 8A Panel Rebate Slab Details
– Direct Fix System**

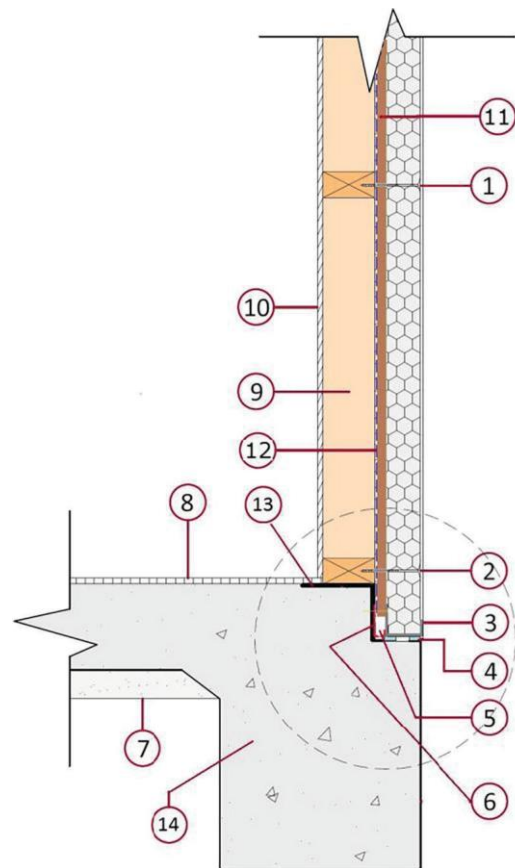
1. Fasteners – screws and washers
2. Plain EPS panel
3. Starter channel bead – 90°
4. Caulking with backing rod and filled with PU sealant (Sikaflex Pro) minimum 8-10mm gap
5. Damp proof course between concrete slab and EPS panel
6. Concrete footing system
7. Sand bed
8. Floor finish
9. Standard timber stud frame 90mm x 35mm
10. Internal plasterboard
11. Breathable wall wrap (sarking) taped to bottom plate.



Note: EPS panel to be minimum 100mm from ground level

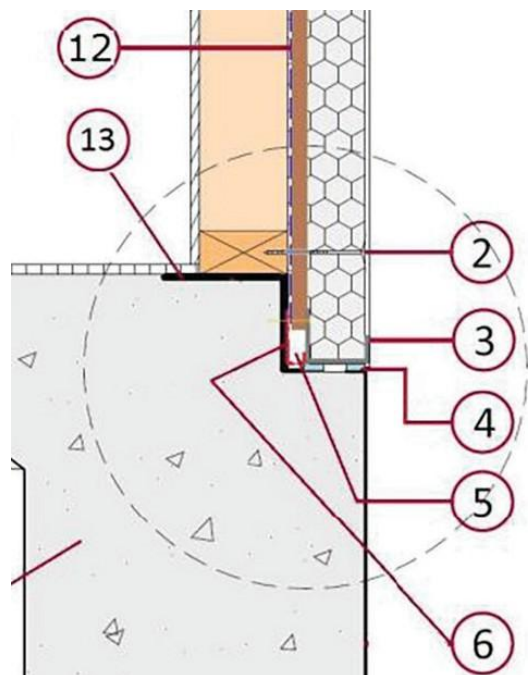
Panel Rebate Slab Details – Cavity System

1. Fasteners – screws and washers
2. Pre-coated EPS panel
3. Starter channel bead – 90°
4. Caulking with backing rod and filled with PU sealant (Sikaflex Pro) minimum 8-10mm gap
5. Cavity drain
6. Cavity closer – 25mm
7. Sand bed
8. Floor finish
9. Standard timber stud frame 90mm x 35mm
10. Internal plasterboard
11. Breathable wall wrap (sarking) taped to bottom plate
12. Batten EPS – 'H' Grade 25mm x 35mm
13. Damp proof course between concrete slab and EPS panel
14. Concrete footing system



Note: Pre-coated EPS panel to be minimum 100mm from ground level

Magnified view cavity system drains



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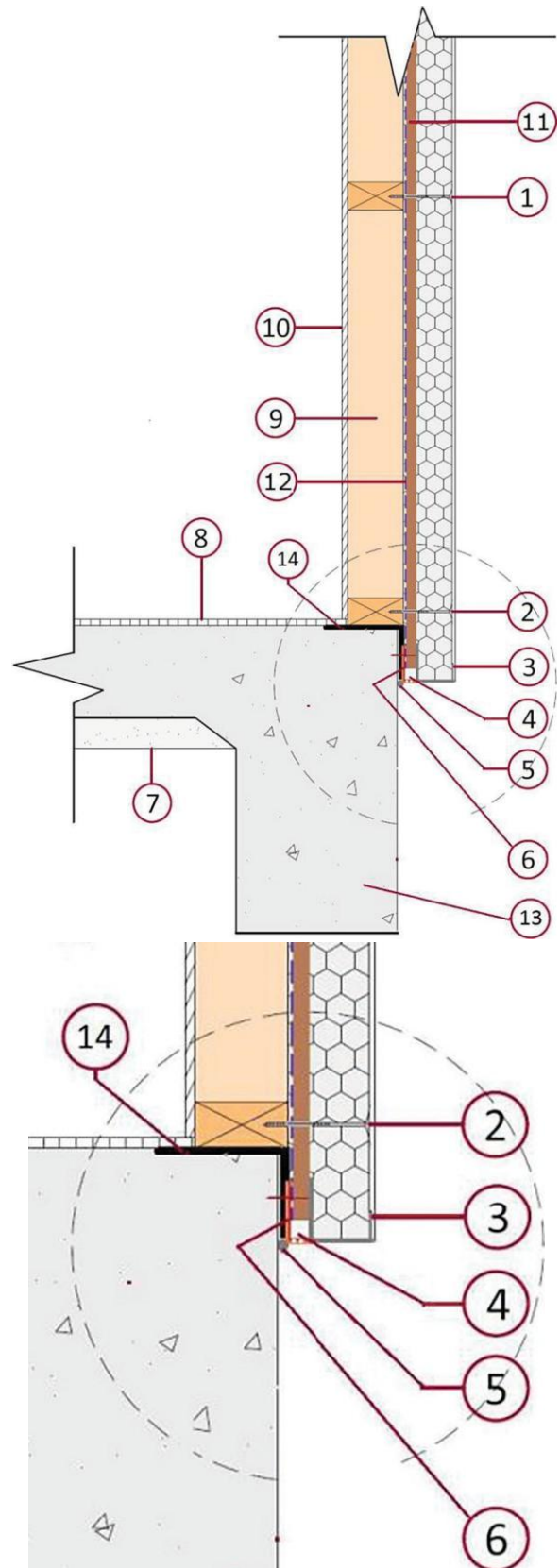
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Panel Slab Edge Details – Cavity System

1. Fasteners – screws and washers
2. Pre-coated EPS panel
3. Starter channel bead – 90°
4. Cavity drains
5. Caulking filled with PU sealant (Sikaflex Pro)
6. Cavity closer – 25mm
7. Sand bed
8. Floor finish
9. Standard timber stud frame 90mm x 35mm
10. Internal plasterboard
11. Breathable wall wrap (sarking) taped to bottom plate.
12. Batten EPS – 'H' Grade 25mm x 35mm
13. Concrete footing system
14. Damp proof course between concreteslab and Pre-coated EPS panel

Note: Pre-coated EPS panel to be minimum 100mm from ground level

Magnified view cavity system drains



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Figure 9A Panel to Masonry Details – Direct Fix System

1. Breathable wall wrap taped to flashing
2. Plain EPS panel
3. Starter channel bead 120°
4. Flashing
5. Masonry veneer
6. Cavity between brick veneer and timber frame
7. Standard timber stud frame 90mm x 35mm
8. Timber stud frame top plate
9. Timber floor framing to AS 1684

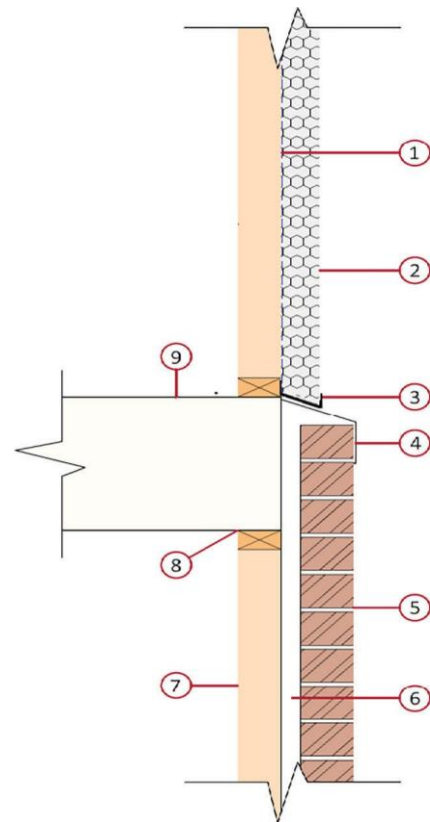
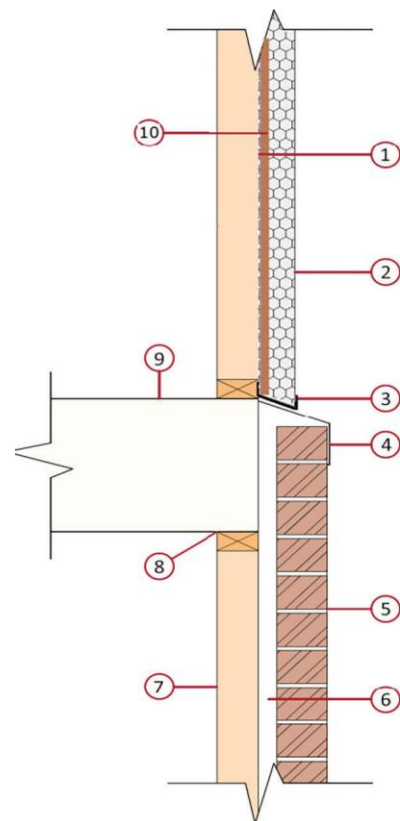


Figure 9B Panel To Masonry Details – Cavity System

1. Breathable wall wrap taped to flashing
2. Pre-coated EPS panel
3. Starter channel bead 120°
4. Flashing
5. Masonry veneer
6. Cavity between brick veneer and timber frame
7. Standard timber stud frame 90mm x 35mm
8. Timber stud frame top plate
9. Timber floor framing to AS 1684
10. Batten EPS – 'H' Grade 25mm x 35mm



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Figure 10A Parapet Flashing Details – Direct Fix System

1. Flashing to cap over parapet wall and extend to box gutter
2. Timber packer
3. Plain EPS panel
4. Breathable wall wrap taped to box gutter
5. Fastener - screw and washer
6. Grey board render coating minimum 6mm thick with embedded mesh
7. Roofing material
8. Box gutter
9. Standard timber stud frame 90mmx35mm

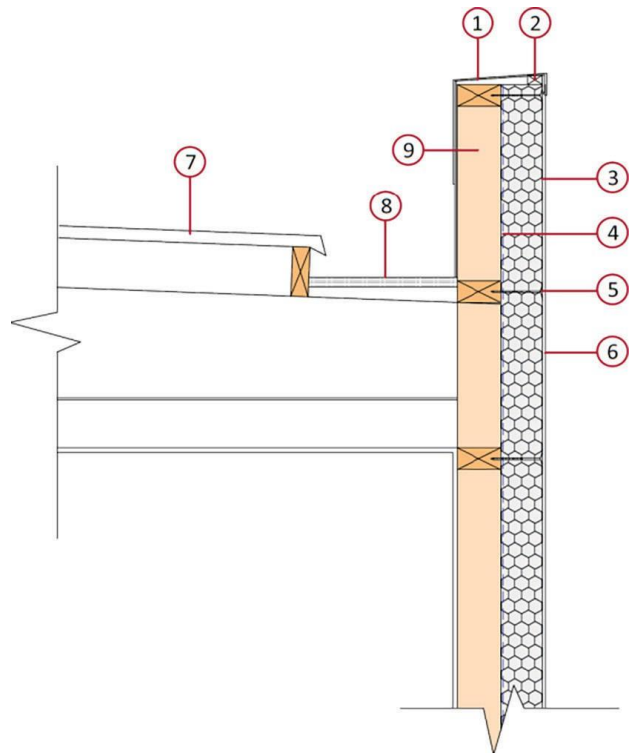
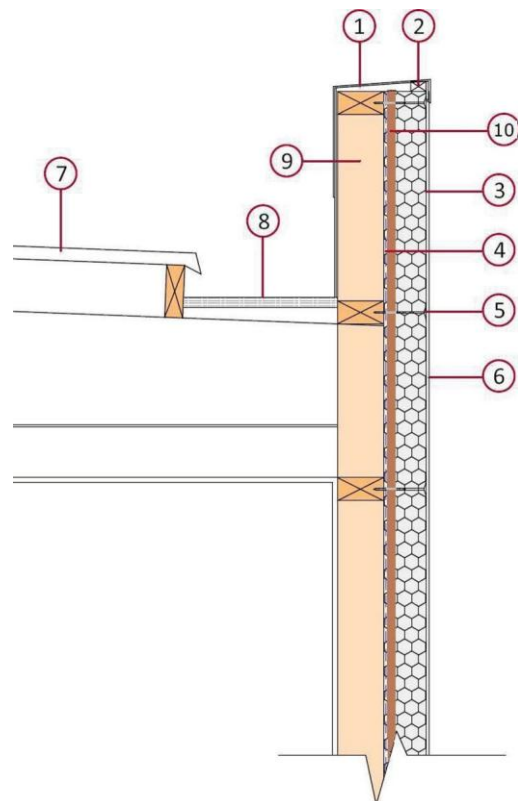


Figure 10A Parapet Flashing Details – Cavity System

1. Flashing to cap over parapet wall and extend to box gutter
2. Timber packer
3. Pre-coated EPS panel
4. Breathable wall wrap taped to box gutter
5. Fastener - screw and washer
6. Grey board render coating minimum 6mm thick with embedded mesh
7. Roofing material
8. Box gutter
9. Standard timber stud frame 90mm x 35mm
10. Batten EPS -'H' Grade 25mm x 35mm



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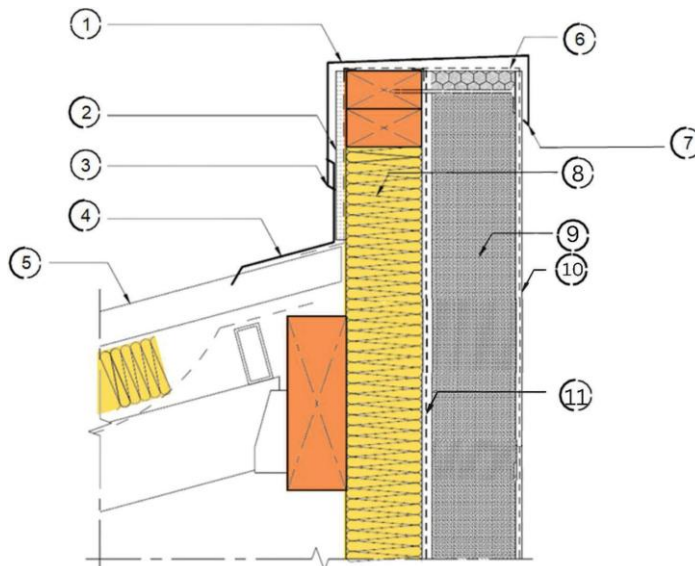
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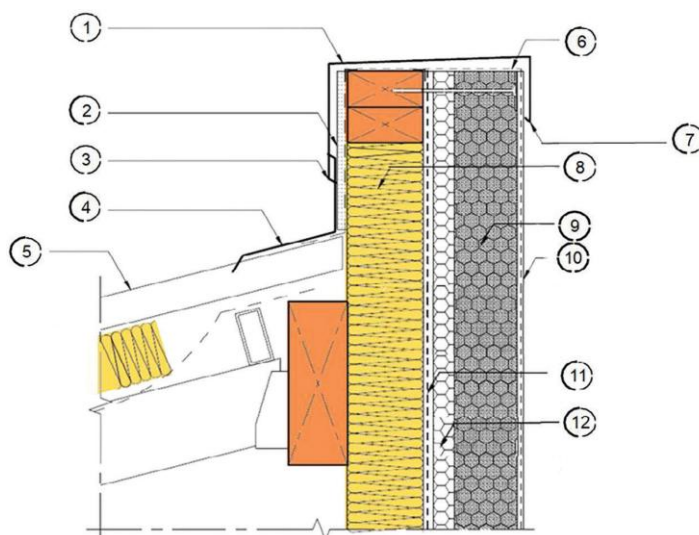
Metal Capping Parapet Wall to Roof – Direct Fix

1. Parapet metal capping Installed by others
2. External wall cladding as specified
3. 10mm / 30 degrees
4. Metal flashing
5. Pitched roof
6. Breathable wall wrap continuous over frame taped to box gutter
7. 10mm / 90 degrees
8. Additional wall insulation as specified
9. Plain EPS panel
10. Render / Mesh
11. Breathable wall wrap (sarking) taped to frame.



Metal Capping Parapet Wall to Roof – Cavity System

1. Parapet metal capping installed by others
2. External Wall Cladding as specified
3. 10mm / 30 degrees
4. Metal flashing
5. Pitched roof
6. Breathable wall wrap continuous over frame
7. 10mm / 90 degrees
8. Additional Wall insulation as specified
9. Pre-coated EPS panel
10. Render/ Mesh
11. Breathable wall wrap (sarking) taped to frame
12. Vertical Batten



Note: – in all cases screw fixing are made into framing, not into additional wall insulation

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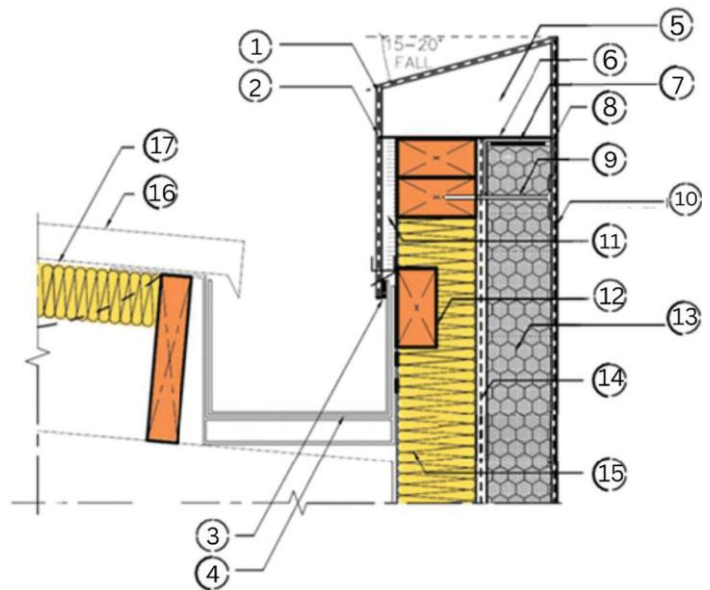
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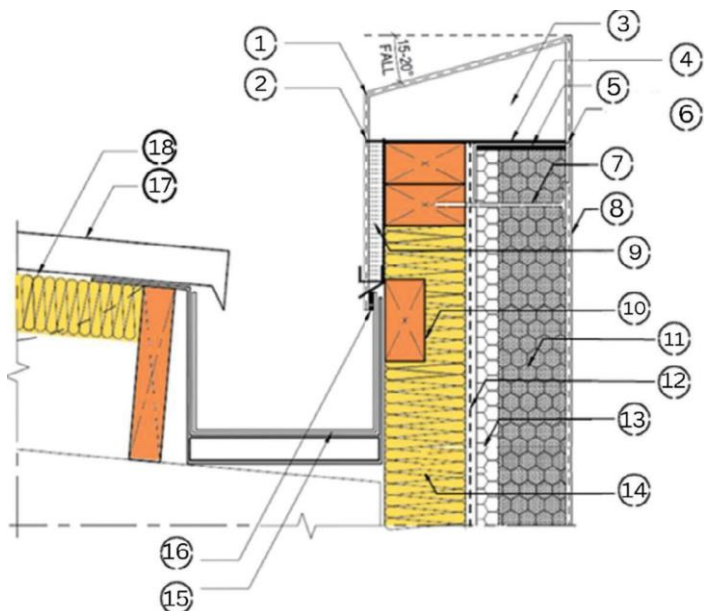
Rendered Parapet Wall to Box Gutter – Direct Fix System

1. Reinforcing mesh
2. 2nd layer of reinforcing mesh
3. Sealant
4. Metal Box gutter with box gutter as specified
5. H-Grade EPS wedge
6. Sealant
7. Adhesive
8. Starter channel secured to top of wall structure
9. Washer secured with screw
10. Render/ Mesh
11. 4.5mm FC sheet as specified
12. Support framing
13. Plain EPS panel
14. Breathable wall wrap taped to frame
15. Additional wall insulation as specified
16. Roofing as specified
17. Roof insulation as specified



Rendered Parapet Wall to Box Gutter – Direct Fix System

1. Reinforcing mesh
2. 2nd layer of reinforcing mesh
3. H-Grade EPS wedge
4. Sealant
5. Adhesive
6. Starter channel secured to top of wall structure
7. Washer secured with screw
8. Render / Mesh
9. 4.5mm FC sheet as specified
10. Support framing
11. Pre-coated EPS panel
12. Breathable wall wrap taped to frame
13. Vertical batten
14. Additional wall insulation as specified
15. Metal box gutter with box gutter as specified
16. Sealant
17. Roofing as specified
18. Roof insulation as specified



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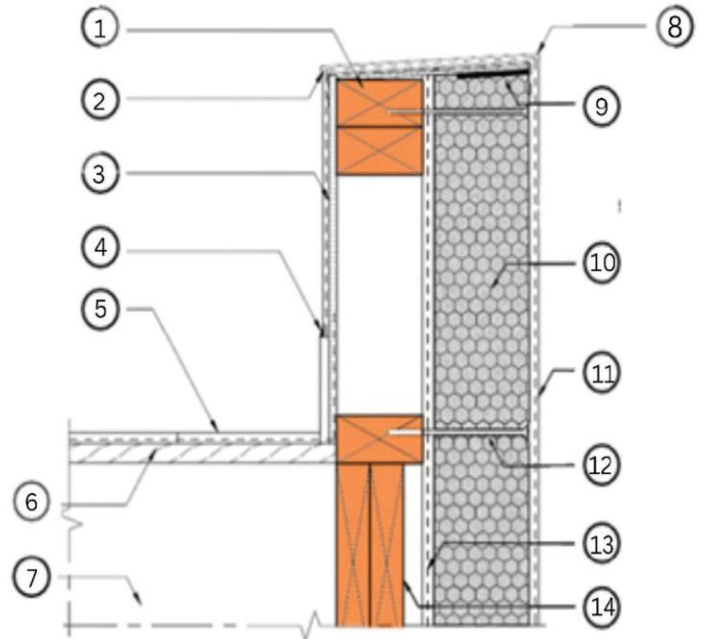
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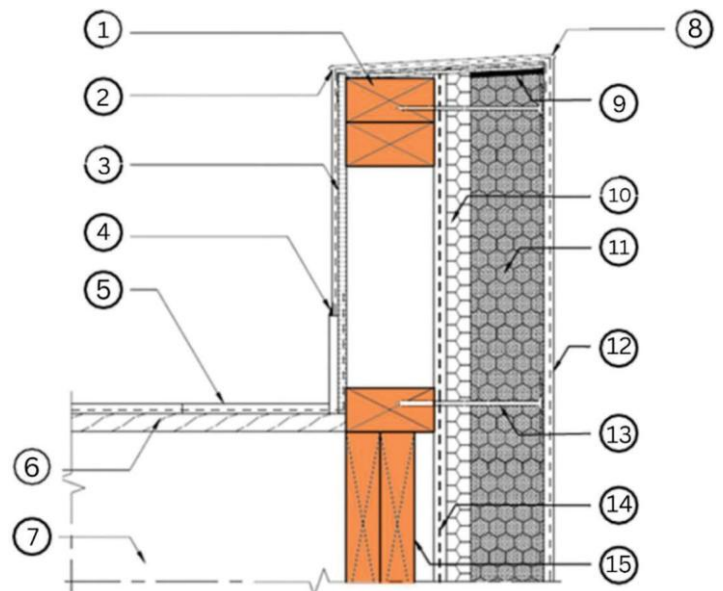
Balustrade Wall – Direct Fix

1. Framing at 600mm max. centres
2. External corner bead with approved adhesive
3. Backing as specified
4. Skirting
5. Flooring as specified
6. Floor to drain to waste as specified. Minimum fall of flooring in accordance with AS 4654 is 1:100
7. Floor joist
8. External corner bead with approved adhesive
9. Sealant final texture coat
10. Plain EPS panel
11. Render / Mesh
12. Washer secured with screw
13. Breathable wall wrap taped to frame
14. Beam as specified



Balustrade Wall – Cavity Fix

1. Framing at 600mm max. centres
2. External corner bead with approved adhesive
3. Backing as specified
4. Skirting
5. Flooring as specified
6. Floor to drain to waste as specified. Minimum fall of flooring in accordance with AS4654IS 1:100
7. Floor joist
8. External corner bead with approved adhesive
9. Sealant final texture coat
10. Vertical batten
11. Pre-coated EPS panel
12. Render / Mesh
13. Washer secured with screw
14. Breathable wall wrap taped to frame
15. Beam as specified



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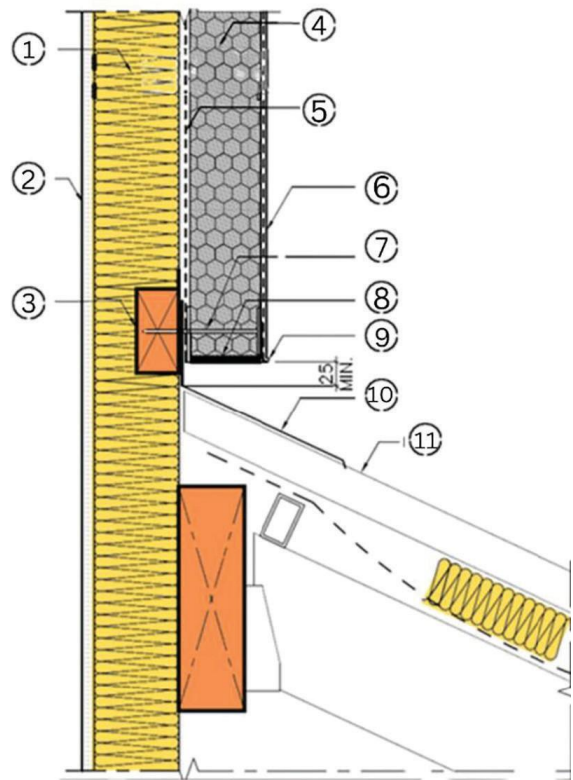
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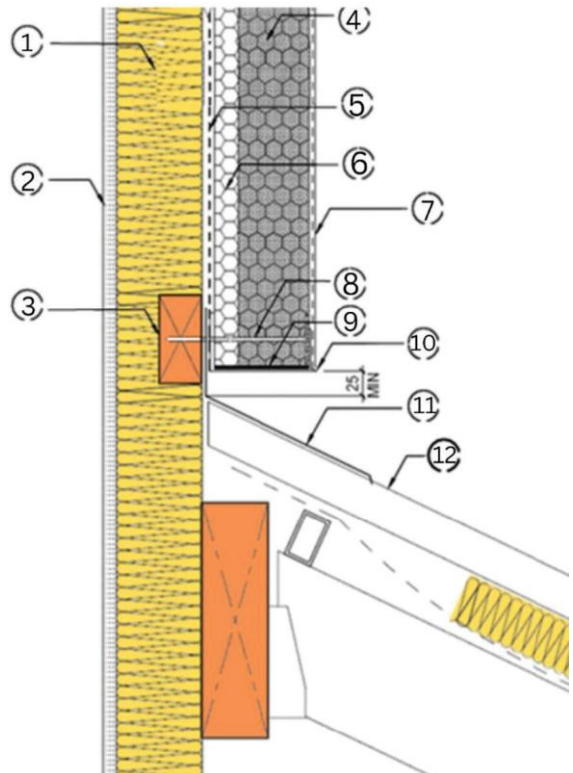
Wall Over Roof – Parapet Flashing Details – Direct Fix System

1. Additional wall insulation as specified
2. Wall lining
3. Framing member
4. Palin EPS panel
5. Breathable wall wrap taped to flashing
6. Render / Mesh
7. Washer secured with screw
8. Adhesive
9. Starter channels
10. Metal flashing by others (secured between wall wrap & frame)
11. Pitched roof below



Wall Over Roof – Parapet Flashing Details – Cavity System

1. Additional wall insulation as specified
2. Wall lining
3. Framing member
4. Pre-coated EPS panel
5. Breathable wall wrap taped to flashing
6. Vertical batten
7. Render / Mesh
8. Washer secured with screw
9. Adhesive
10. Starter channel with weep holes
11. Metal flashing by others (secured between wall wrap & frame)
12. Pitched roof below



Note: – in all cases screw fixing are made into framing, not into additional wall insulation

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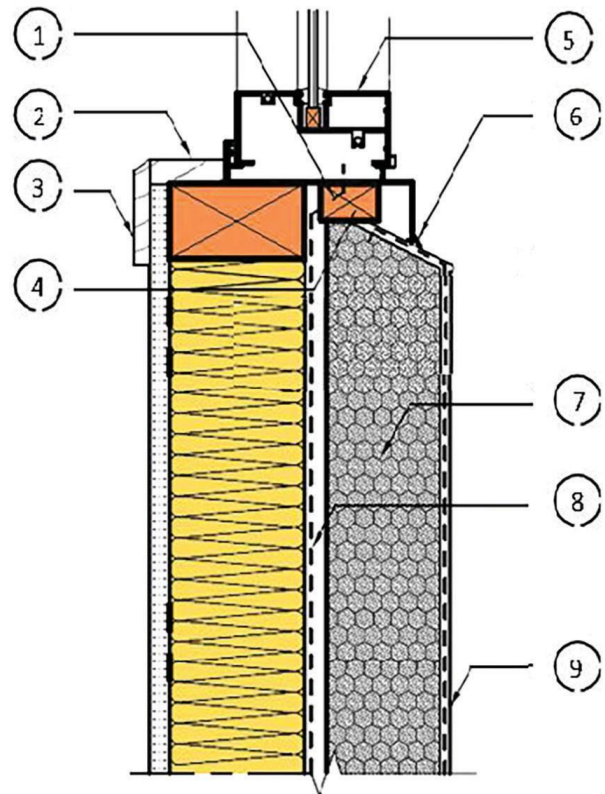
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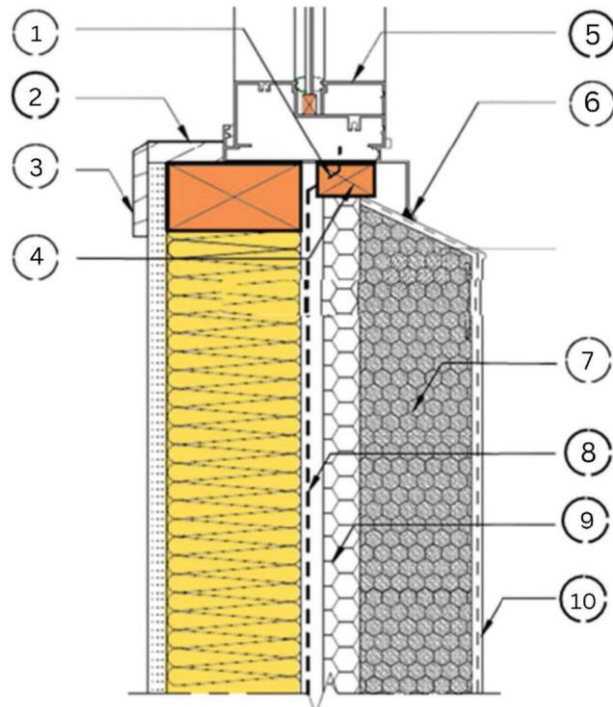
Window Sill – Direct Fix

1. Adhesive flashing tape
2. Reveal as specified
3. Architrave as specified
4. Packer as required
5. Specified window system
6. Sealant under final texture coat
7. Plain EPS panel
8. Breathable wall wrap taped to frame
9. Render / Mesh



Window Sill – Cavity System

1. Adhesive flashing tape
2. Reveal as specified
3. Architrave as specified
4. Packer as required
5. Specified window system
6. Sealant under final texture coat
7. Pre-coated EPS panel
8. Breathable wall wrap taped to frame
9. Vertical batten
10. Render/ Mesh



Notes:

- **Min. slope of sill must be not less than 18 degrees.**
- **In all cases screw fixings are made into framing, not into additional wall insulation.**

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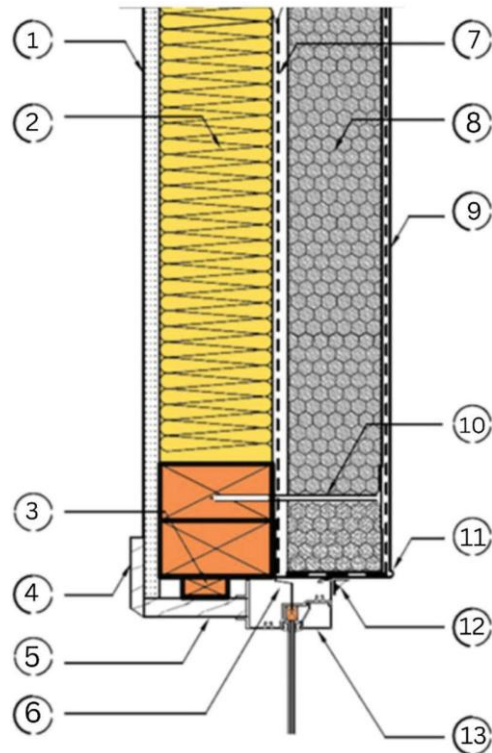
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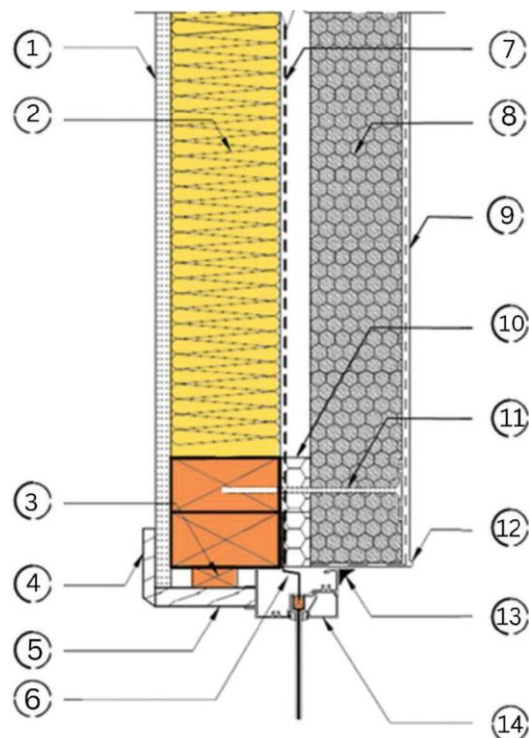
Window Jamb – Direct Fix

1. Plasterboard wall lining
2. Wall insulation as specified
3. Timber packer as specified
4. Architrave as specified
5. Timber reveal
6. Adhesive flashing tape
7. Breathable wall wrap taped to frame
8. Pre-coated EPS panel
9. Render/ Mesh
10. Washer secured with screw
11. Bead with approved adhesive
12. Sealant under final texture coats
13. Window system as specified



Window Jamb – Cavity System

1. Plasterboard wall lining
2. Wall insulation as specified
3. Timber packer as specified
4. Architrave as specified
5. Timber reveal
6. Adhesive flashing tape
7. Breathable wall wrap taped to frame
8. Pre-coated EPS panel
9. Render / Mesh
10. Vertical batten
11. Washer secured with screw
12. Bead with adhesive
13. Sealant under final texture coats
14. Window systems specified



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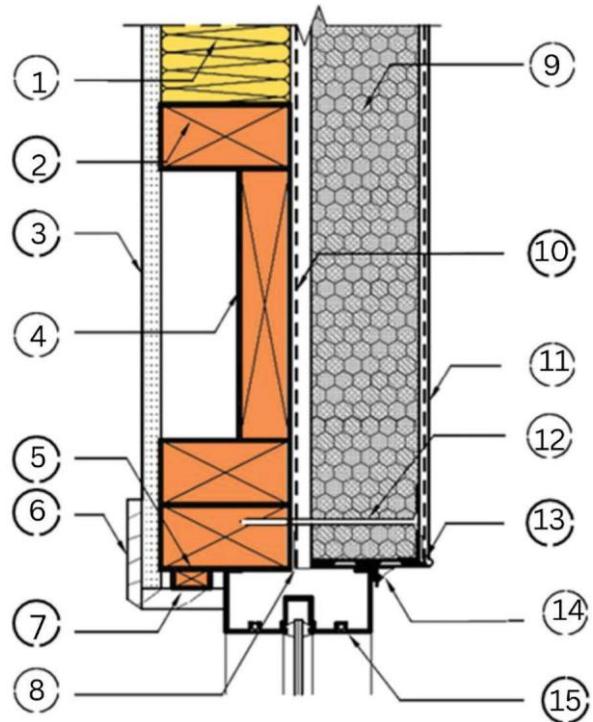
Sales & Warehouse: 15A Malcolm Court, KEALBA VIC 3021

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Factory: 4/11 Malcolm Court Kealba Victoria 3021

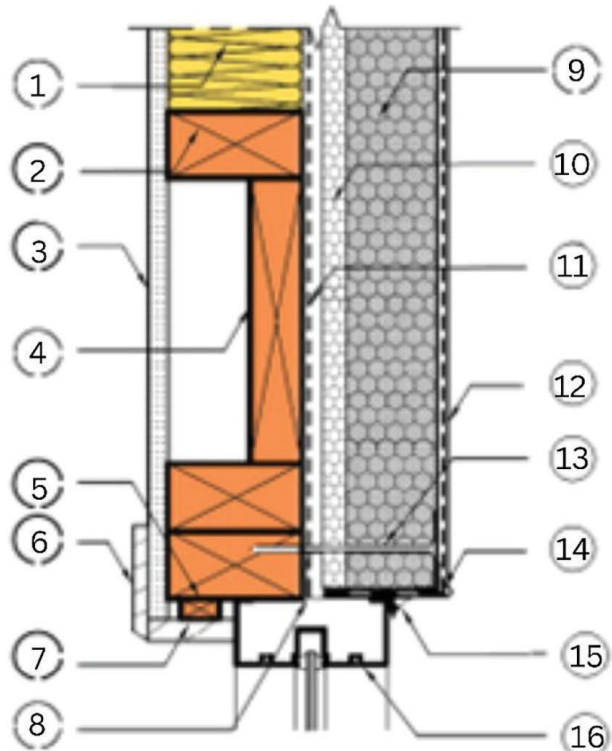
Window Head – Direct Fix

1. Additional wall insulation as specified
2. Framing as specified
3. Wall lining
4. Lintel as specified
5. Packer as specified
6. Architrave as specified
7. Reveal as specified
8. Adhesive flashing tape
9. Plain EPS panel
10. Breathable wall wrap taped to frame
11. Render / Mesh
12. Washer secured with screw
13. External corner bead with approved adhesive
14. Sealant under final texture coat
15. Specified window system



Window Head – Cavity System

1. Additional wall insulation as specified
2. Framing as specified
3. Wall lining
4. Lintel as specified
5. Packer as specified
6. Architrave as specified
7. Reveal as specified
8. Adhesive flashing tape
9. Pre-coated panel
10. Vertical batten
11. Breathable wall wrap taped to frame
12. Render / Mesh
13. Washers secured with screws
14. External corner bead with approved adhesive
15. Sealant under final texture coat
16. Specified window system



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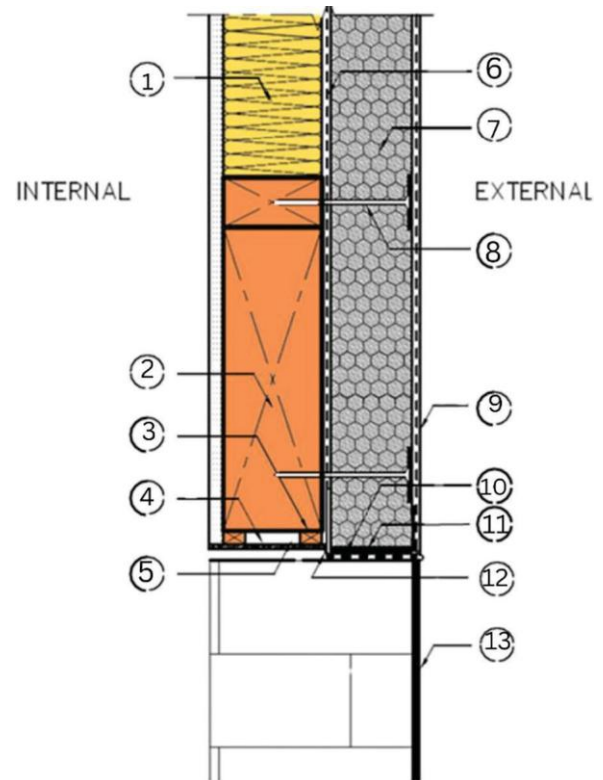
Sales & Warehouse: 15A Malcolm Court, KEALBA VIC 3021

M: 0412 310 217 P: (03) 9364 4489 F: (03) 9364 4491

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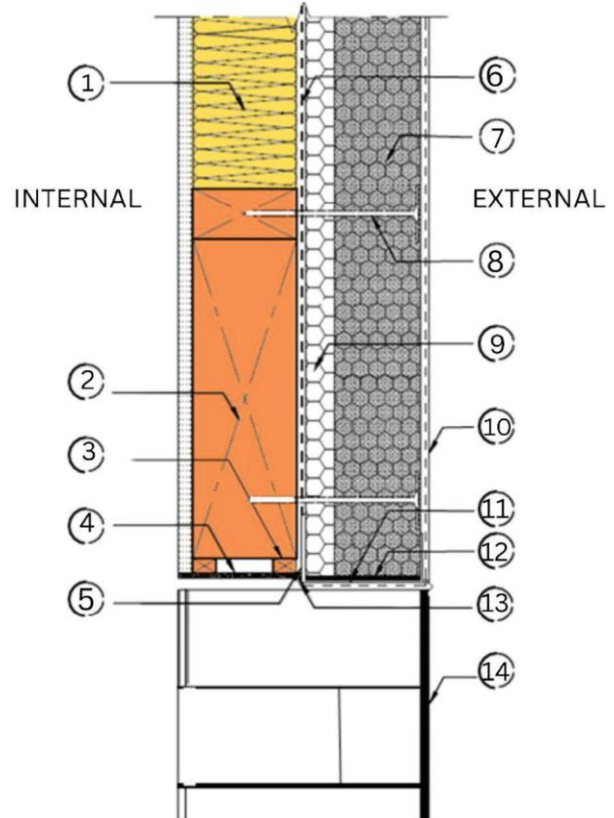
Garage / Bulkhead / Overhang / Drip – Direct Fix

1. Additional wall insulation as specified
2. Beam as specified
3. Packers as required
4. 6mm fibre cement sheet with render finish
5. Starter channel to be 10-15mm below fiber cement sheet level
6. Breathable wall wrap taped to frame
7. Plain EPS panel
8. Washer secured with screw
9. Render / Mesh
10. Starter channel
11. Adhesive
12. Sealant
13. Render face of cladding to finish flush with finished masonry support with control joint at junctions



Garage / Bulkhead / Overhang / Drip – Cavity System

1. Additional wall insulation as specified
2. Beam as specified
3. Packers as required
4. 6mm fibre cement sheet with render finish
5. Starter channel to be 10-15mm below fiber cement sheet level
6. Breathable wall wrap taped to frame
7. Pre-coated panel
8. Washer secured with screw
9. Vertical batten
10. Render / Mesh
11. Starter channel with weep holes
12. Adhesive
13. Sealant
14. Render face of cladding to finish flush with finished masonry support with control joint at junctions



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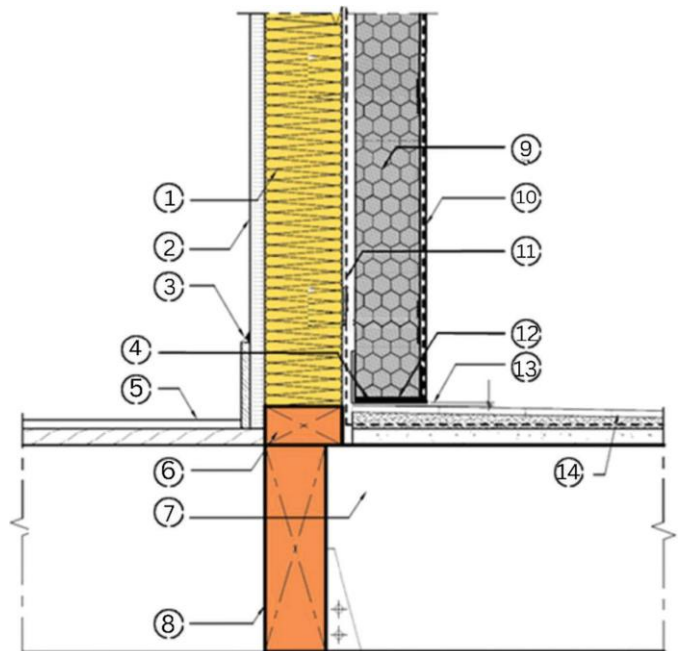
Sales & Warehouse: 15A Malcolm Court, KEALBA VIC 3021

M: 0412 310 217 P: (03) 9364 4489 F: (03) 9364 4491

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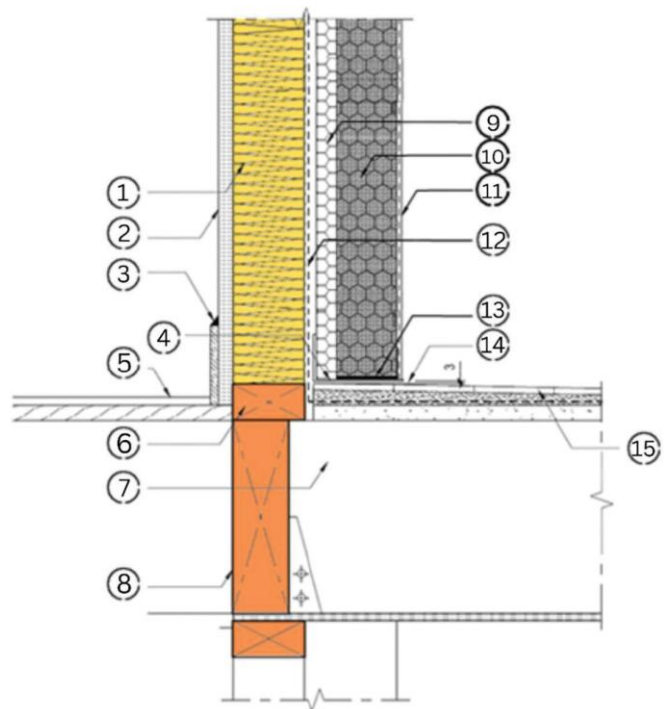
Wall To Balcony – Direct Fix

1. Additional insulation as specified
2. Internal lining
3. Skirting
4. Starter channel with weep holes under cavity spacer, fixed to every stud by clout or screw
5. Flooring as specified
6. Stud frame 600mm max. centres
7. Floor joist
8. Beam
9. Plain EPS panel
10. Render / Mesh
11. Breathable wall wrap taped to waterproofing membrane as specified
12. Adhesive
13. 3mm gap between flooring and starter channel
14. Floor to drain to waste as specified. minimum fall of flooring in accordance with AS4654 is 1:100



Wall To Balcony – Cavity System

1. Additional wall insulation as specified
2. Internal lining
3. Skirting
4. Starter channel with weep holes under cavity spacer, fixed to every stud by clout or screw
5. Flooring as specified
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7. Floor joist
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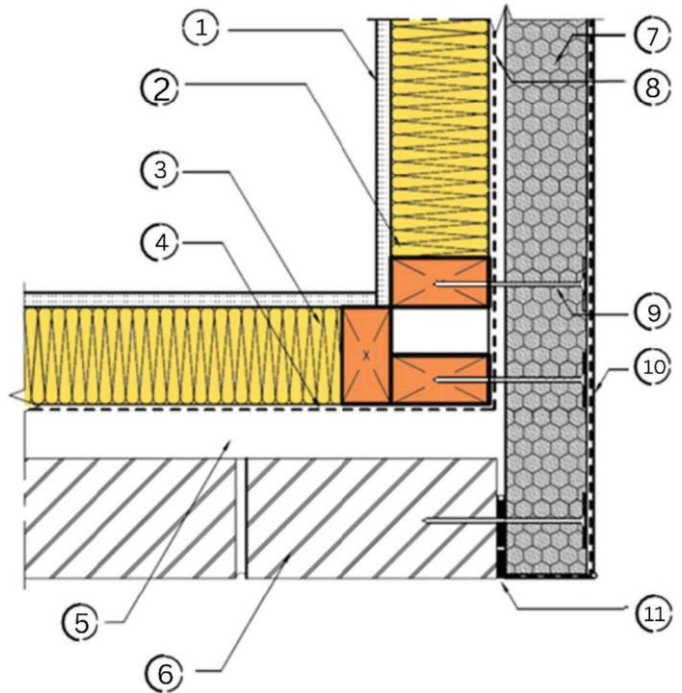
Sales & Warehouse: 15A Malcolm Court, KEALBA VIC 3021

M: 0412 310 217 P: (03) 9364 4489 F: (03) 9364 4491

Factory: 4/11 Malcolm Court Kealba Victoria 3021

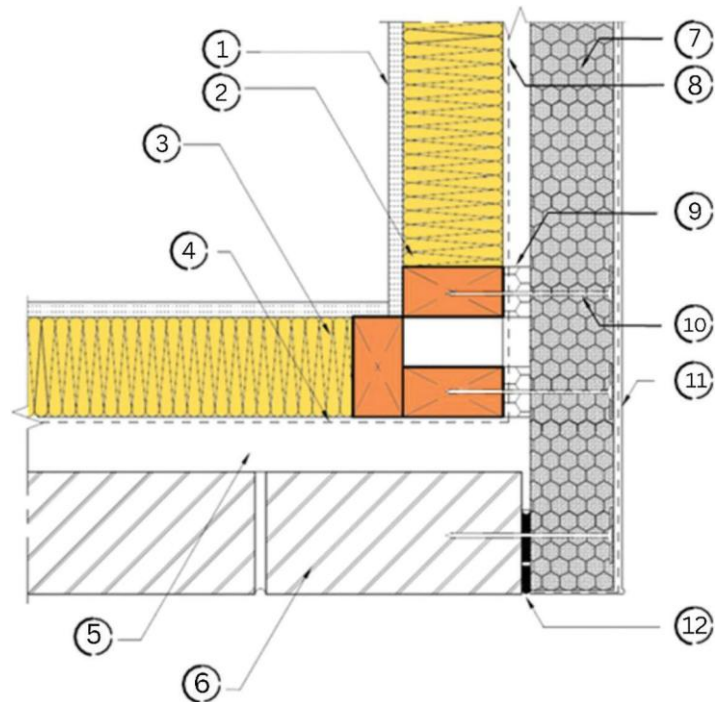
Junction to Masonry Wall – Direct Fix

1. Plasterboard wall lining
2. Stud frame 600mm max. centres
3. Wall insulation as specified
4. Breathable wall wrap taped to frame
5. Cavity
6. Brick / Masonry wall
7. Plain EPS panel
8. Breathable wall wrap taped to frame
9. Washer secured with screw
10. Render / Mesh
11. Sealant or equivalent with backing strip or Rod



Junction to Masonry Wall – Cavity System

1. Plasterboard wall lining
2. Stud frame 600mm max. centres
3. Wall insulation as specified
4. Breathable wall wrap
5. Cavity
6. Brick / Masonry wall
7. Grey Board EIFS Wall Cladding System
8. Breathable wall wrap
9. Vertical batten
10. Washer secured with screw
11. Render / Mesh
12. Sealant or equivalent with backing strip or rod



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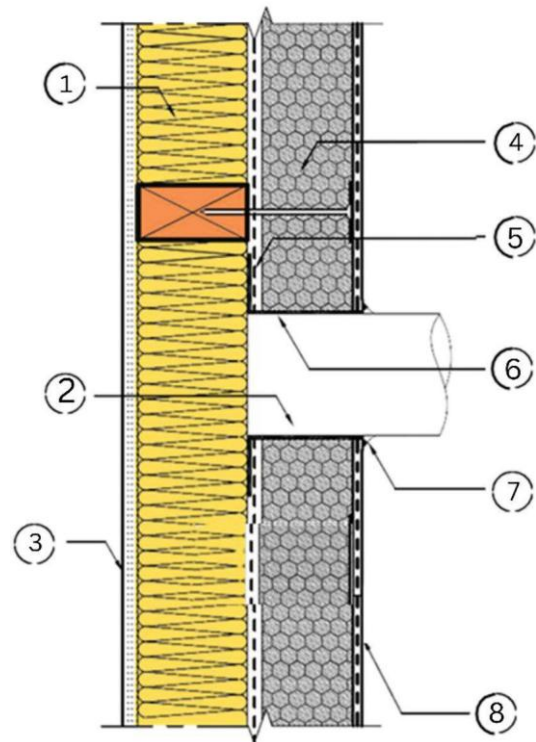
Sales & Warehouse: 15A Malcolm Court, KEALBA VIC 3021

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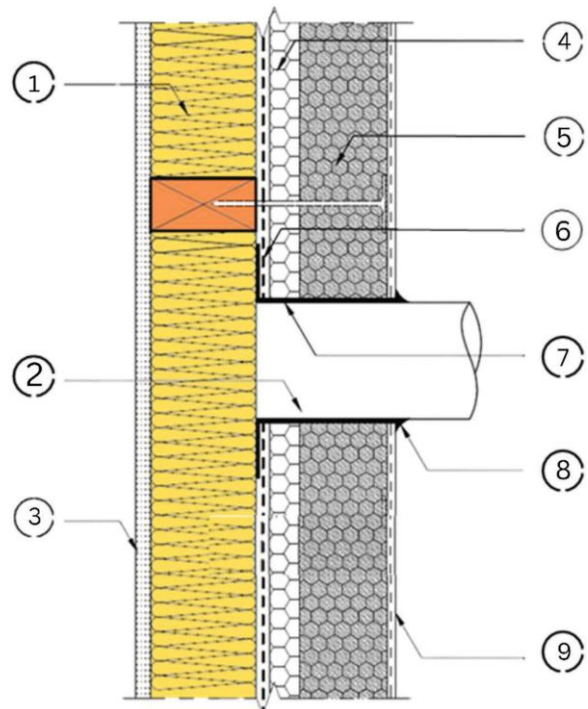
Service Penetration – Direct Fix

1. Additional wall insulation as specified
2. Service pipe / penetration
3. Plasterboard wall lining
4. Plain EPS panel cut and fitted with 10mm gap all around penetration
5. Breathable membrane taped around penetration
6. Flashing tape around pipe (tape to sit in front of wall wrap)
7. 10mm sealant around pipe, over base coat and under texture coat
8. Render / Mesh



Service Penetration – Cavity System

1. Additional wall insulation as specified
2. Service pipe / penetration
3. Wall lining
4. Cavity spacer
5. Pre-coated EPS panel cut with 10mm gap around penetration
6. Breathable membrane taped to pipe
7. Flashing tape around pipe (tape to sit in front of wall wrap)
8. 10mm sealant around pipe, over base coat and under texture coat
9. Render / Mesh



Note: In all cases screw fixings are made into framing, not into additional wall insulation.

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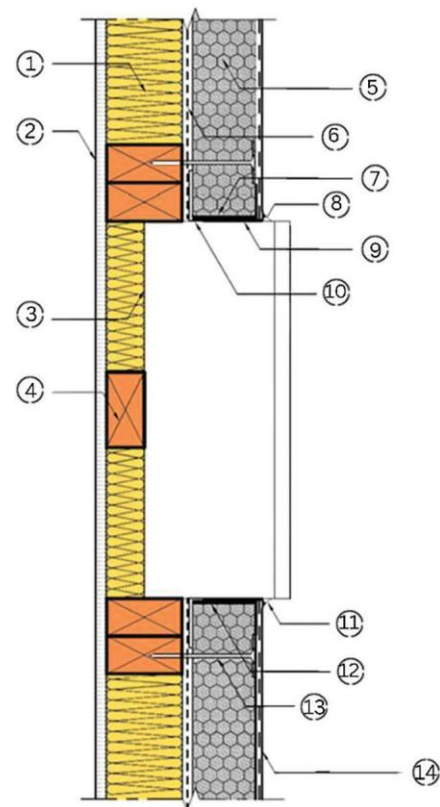
Sales & Warehouse: 15A Malcolm Court, KEALBA VIC 3021

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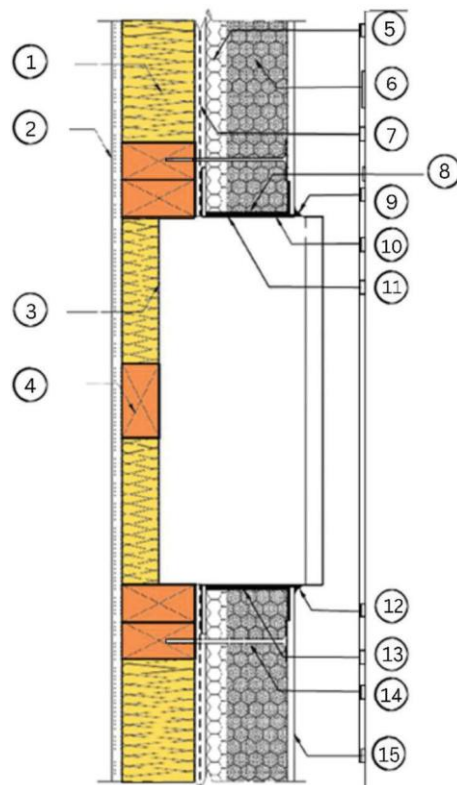
Large Penetration – Direct Fix

1. Wall insulation as specified
2. Wall lining
3. Recessed meter box
4. Frame nogging as required
5. Plain EPS panel
6. Breathable wall wrap taped to penetration
7. Adhesive
8. Sealant
9. Starter channel
10. Flashing tape placed around meter box over wall wrap
11. 10mm sealant placed around meter box under final texture coat
12. Adhesive
13. Washer secured with screw
14. Render / Mesh



Large Penetration – Cavity System

1. Wall insulation as specified
2. Plasterboard wall lining
3. Recessed meter box
4. Frame nogging as required
5. Vertical batten
6. Pre-coated EPS panel
7. Breathable wall wrap taped to meter box
8. Adhesive
9. Sealant
10. Starter channel with weep holes under cavity spacer
11. Flashing tape placed around meter box over wall wrap
12. Sealant placed around meter box under final texture coat
13. Adhesive
14. Washer secured with screw
15. Render/ Mesh



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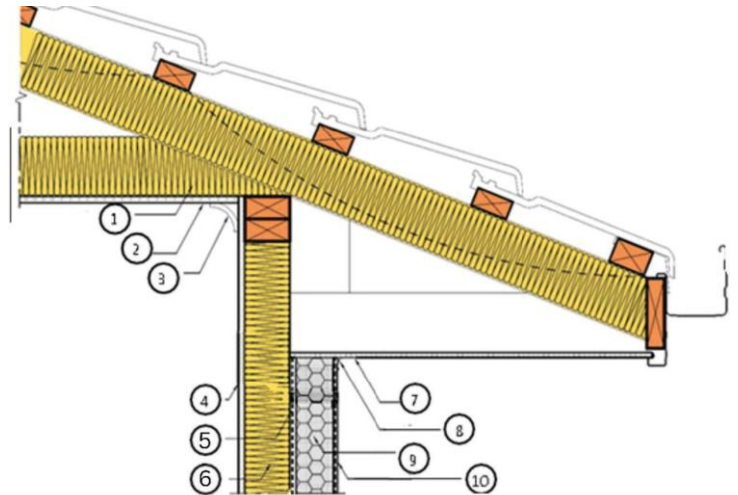
Sales & Warehouse: 15A Malcolm Court, KEALBA VIC 3021

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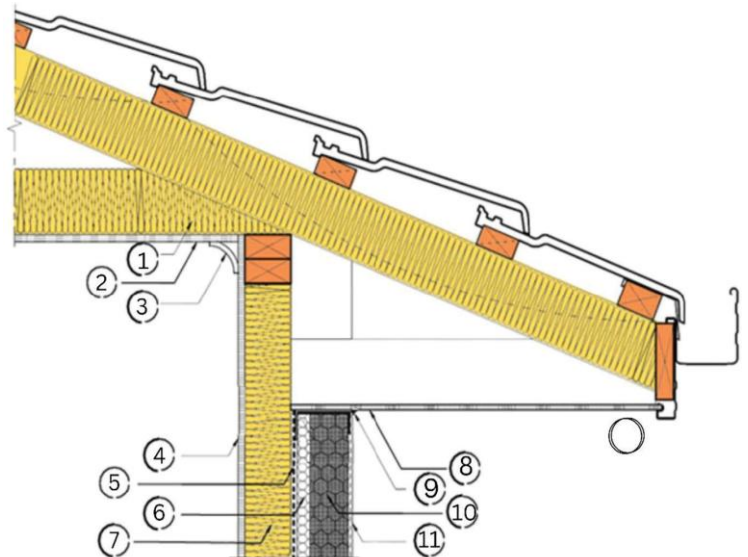
Eave Soffit – Direct Fix

1. Ceiling insulation as specified
2. Ceiling lining
3. Cornice (optional)
4. Plasterboard wall lining
5. Breathable wall wrap taped to frame
6. Additional wall insulation as specified to top plate
7. Soffit lining as specified
8. Sealant
9. Plain EPS panel
10. Render / Mesh



Eave Soffit – Cavity System

1. Ceiling insulation as specified
2. Ceiling lining
3. Cornice (optional)
4. Plasterboard wall lining
5. Breathable wall wrap taped to frame
6. Vertical batten
7. Additional wall insulation as specified to top plate
8. Soffit lining as specified
9. Sealant
10. Pre-coated EPS panel
11. Render / Mesh



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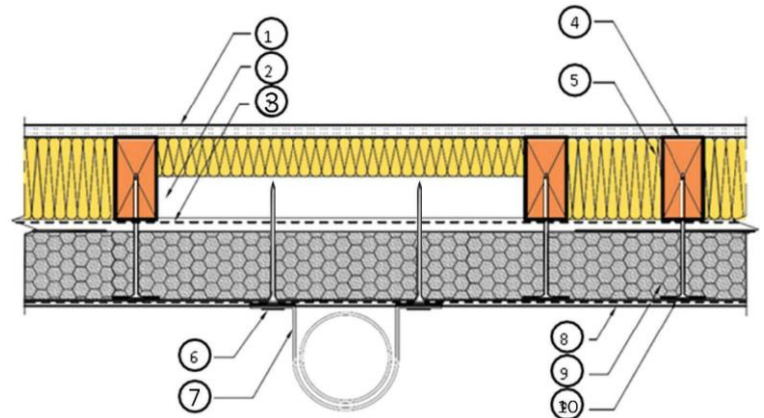
Sales & Warehouse: 15A Malcolm Court, KEALBA VIC 3021

M: 0412 310 217 **P:** (03) 9364 4489 **F:** (03) 9364 4491

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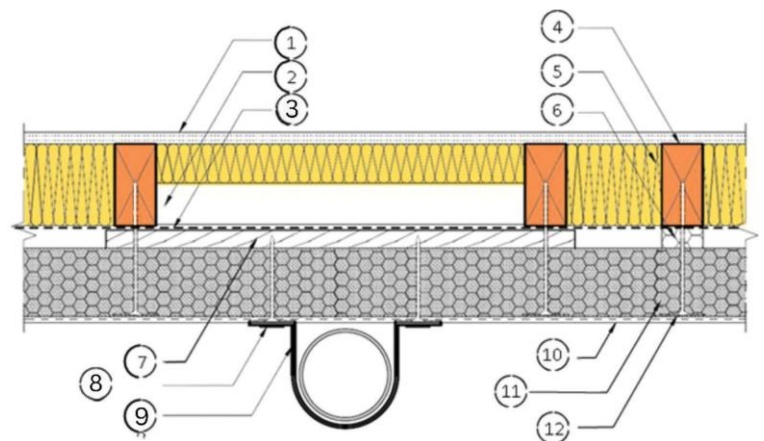
Downpipe Fixing – Direct Fix

1. Wall lining
2. Backing block external fixtures
3. Breathable wall wrap taped to frame
4. Framing at 600mm max. centres
5. Additional wall insulation as specified
6. Sealant over screw fixing through panel into back blocking
7. Downpipe with bracket fixed through to support plate
8. Render / Mesh
9. Plain EPS panel
10. Washer secured with screw



Downpipe Fixing – Cavity System

1. Wall lining
2. Backing block external fixtures
3. Breathable wall wrap taped to frame
4. Framing at 600mm max. centres
5. Additional wall insulation as specified
6. Vertical batten
7. Support plate
8. Sealant
9. Downpipe with bracket fixed through to support plate
10. Render / Mesh
11. Pre-coated EPS panel
12. Washer secured with screw



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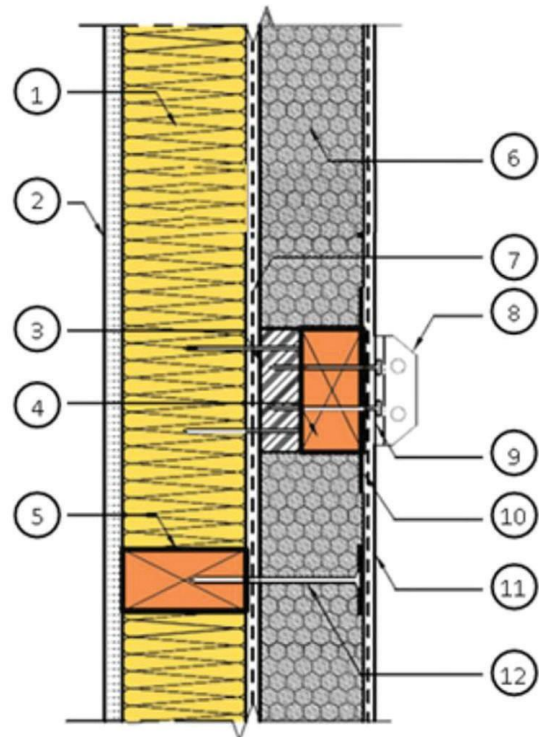
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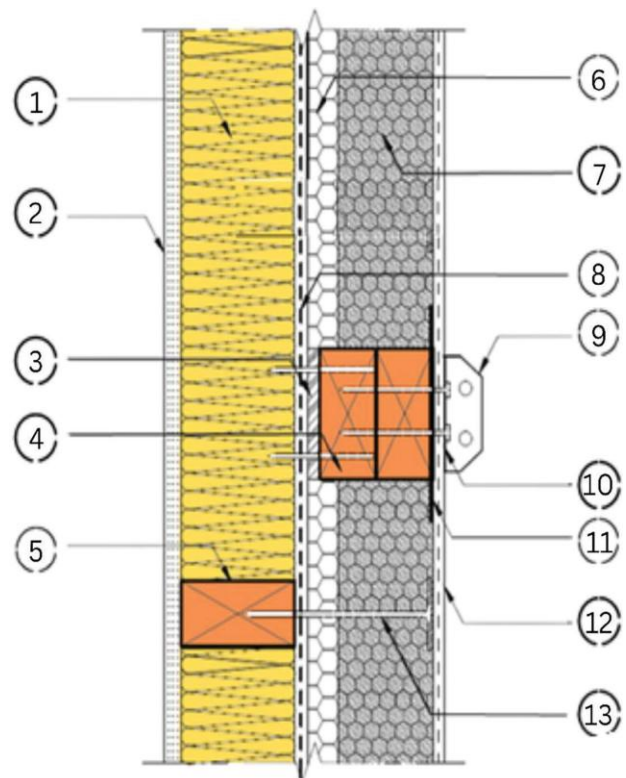
External Fixture – Direct Fixing

1. Additional wall insulation as specified
2. Wall lining
3. Packing spacer
4. Support plate. Fixed to framing
5. Framing at 600mm max. centres
6. Plain EPS panel
7. Breathable wall wrap taped to frame
8. External fixture
9. Sealant around penetration
10. Renderable membrane over support plate
11. Render / Mesh
12. Washer secured with screw



External Fixture – Cavity System

1. Additional wall insulation as specified
2. Wall lining
3. Packing spacer
4. Support plate. Fixed to framing
5. Framing at 600mm max. centres
6. Vertical batten
7. Pre-coated EPS panel
8. Breathable wall wrap taped to frame
9. External fixture
10. Sealant around penetration
11. Renderable membrane over support plate
12. Render / Mesh
13. Washer secured with screw



Note: in all cases screw fixings are made into framing, not into additional wall insulation.

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Grey Board Render – Application Data Sheet

Product Description

Forming part of the Ultratex Grey Board EIFS Wall Cladding System, Ultratex Grey Board Render is a superior quality cement based polymer modified render containing washed and graded medium silica sand, acrylic powder and proprietary additives. It is made solely for the wall cladding system and has been tested to comply with required Australian Standards to satisfy requirements of BCA. Ultratex products are manufactured to stringent quality standards, from the highest quality raw materials available, all of which are blended to accurate specifications to ensure product performance and reliability is “built into every bag, every time!” Ultratex Grey Board Render provides the ideal base for the subsequent application of a variety of topcoats including Ultratex Decorative Textures and Top Coat.

Substrate Preparation

- Areas not to be coated should be masked and protected.
- All surfaces to be rendered must be clean, sound and free from contaminants including oil, mould release, dust, dirt, silicone, mud, grease, salt, efflorescence, animal droppings and any loose or flaking material.

Packing: Type: Paper Sack/Bag
Weight: 20kg net per Bag

Coverage

Grey board render: 3-4 m² per Bag @ 3-5mm thick

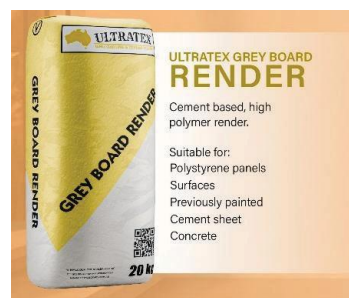
Application Instructions

Installation and important requirements:

- Panel must be installed as specified in the Ultratex Grey Board Technical Manual Installation & Fixing section taking in view of all control joints, specified angles and fixtures etc., involved in the setting up of the wall.
- Building workmanship must comply with relevant building codes.
- Mix one (1) 20kg bag of Ultratex Grey Board Render to @ 3.5-4 litres of clean water using a power stirrer
- Add the dry mix to water steadily while mixing with a power stirrer until the consistency is smooth and lump free.
- Allow the mix to stand for 5 minutes, remix before use or before adjusting consistency if required.

For Direct Fix Wall Panel System (Type of panel: Plain polystyrene)

- Application – Base coat: 2 coats of grey board render with mesh embedded across entire panel (using 1.2m x 50m roll)
- Apply a 3-5mm basecoat of grey board render onto the panel using a steel trowel with enough pressure to adhere the product. Whilst the basecoat is wet embed a full layer of alkali resistant 160gm/m² (5mm x 5mm) fiberglass mesh ensuring that the mesh pieces overlap by a minimum



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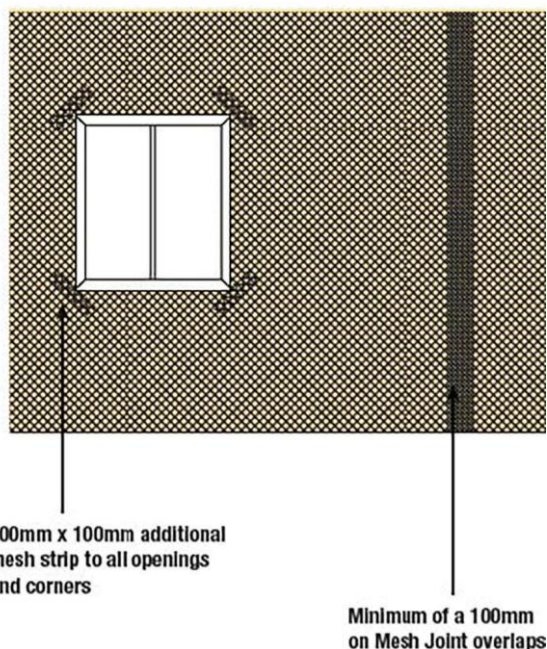
of 100mm at mesh joints. Panel joints should be evenly covered with the same embedded mesh (avoid overlap of mesh joints near the main panel joint). Strips of mesh at 45-degree angle or equivalent, 300mm long by 100mm wide, should be embedded across the corner of all window and door openings.

- In the same sequence apply another coat of render at a thickness of 2-3mm on top of the full mesh, embedding the mesh between these layers of render. On setting use a straight edge and screed surface, thereafter using a polystyrene float, finishing the surface to give an even and level finish.
- Grey Board Render should be of minimum 6mm thick.
- Do not apply render over expansion joints
- Grey Board Render should be completely dry before application of topcoats.

For Cavity Wall Panel System: (Type of panel: Pre-coated)

- Application – base coat: 2 coats of poly board render with 200mm mesh embedded on panel joints only. (Pre-coated panel has a mesh embedded across the entire panel)
- Apply a 3-5mm basecoat of poly board render onto the panel using a steel trowel with enough pressure to adhere the product. Whilst the basecoat is wet embed 200mm mesh across panel joint only (160gm/m² 5mm x 5mm fibreglass mesh). Panel joints should be evenly covered with the same embedded mesh (avoid overlap of mesh joints near the main panel joint). Strips of mesh at 45-degree angle or equivalent, 300mm long by 100mm wide, should be embedded across the corner of all window and door openings.
- In the same sequence apply another coat of render at a thickness of 2-3mm. On setting use a straight edge and screed surface, thereafter using a polystyrene float, finishing the surface to give an even and level finish.
- Grey Board Render should be of minimum 6mm thick.
- Do not apply render over expansion joints. Grey Board Render should be completely dry before application of topcoats.

Mesh Reinforcing



Pot Life

- When mixed with water the maximum pot life is two (2) hours, do not add more water to extend pot life as this will reduce the strength and durability of the finished render.

Clean-Up

- Clean up with water

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Important Notes

- Do not apply render on unprotected surfaces when rain is anticipated within 6 hours of completion of the day's work – longer in damp, cold +/- humid conditions
- Avoid application in full sun, on hot surfaces or in hot windy conditions
- Application should be carried out on a day with temperatures above 10°C and below 30°C
- Coated area must be protected from damage until the completion of the project – finished work must be protected from rain, frost and severe weather conditions until fully dried
- Primer / Paint coatings should not be applied to mineral coating until sufficiently hardened and dried.
- General guide to hardening / drying – allow 1 day per mm thickness (will reach maximum strength in 28 days from application)

Safety & Handling

This material is hazardous according to criteria of NOHSC. Not classified as dangerous goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by road and rail.

For further information or Material Safety Data Sheet please call (03) 9364 4489 or visit www.Ultratexvic.com.au

Please Refer to Material Safety Data Sheet before use.

When working with render observe the usual precautions for handling cement-based mortars & renders including:

- Avoid inhalation of the dust, wear suitable respiratory protection mask, avoid prolonged skin contact with wet mortar and eye contact (contains sand based crystalline silica)
- Wear protective clothing to minimize skin contact and wear goggles where splatter is likely

First Aid Measures

Ingestion

If swallowed, wash out mouth with water. DO NOT induce vomiting. Drink at least two (2) glasses of water. Seek medical attention.

Eye

Wash with a copious amount of water for 15 minutes holding eyelid(s) open. Take care not to rinse contaminated water into non-affected eye. Seek medical attention.

Advice to Doctor

Treat symptomatically

Safety & Handling

The use of personal protective equipment (PPE) is recommended throughout the transportation and installation process of the Ultratex Grey Board Wall Cladding System.



Handling

The EPS panels shall be handled with care during the installation process. This must be done in order to prevent edge damage or fracture. Particular care is required during windy or poor weather conditions as unsecured panels can be severely damaged. Risk assessment is to be initially carried out before commencement of work with site personnel prior to installation.

Storage

EPS panels being exposed continuously may result in deterioration and minor fretting of exposed edges of EPS which is to be removed prior to coating. All panels delivered to site are to be stored flat and evenly supported. Protection from damage, soiling or direct sunlight is to be considered by covering panels or likewise.

Transportation

During transportation of EPS panels, crushing of the edge of the sheet with ropes is to be avoided, this can be done by the use of heavy folded cardboard made into an angle or truck ends in order to protect the edge. Panels are also to be well restrained to avoid them falling off / flying off.

Waste Management

Distribution of waste material including dust and off-cuts is to be prevented through the preparation for removal and legal disposal of waste. EPS panels are not resistant to hydrocarbons, chlorinated hydrocarbons, ketones or esters.