

Insulcon Panel System™

Installation Manual



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Contents

General Information	4
What is the Insulcon Panel System?	4
Know Your Panels	4
Introduction to the Insulcon Panel System	4-5
BAL 29 Compliance	5
Technical Specification	6
Weights	6
Polystyrene Sheet Grades and Uses	6
Strength data	6
Australian Standards	6
Surface finish	6
Storage and Handling	6-7
General Design Requirements	7
Concrete slab design	7
Stud wall design	7
Electrical penetrations	7
Flashings	7
Colour	7
General Design Requirements (cont'd)	8
Parapets	8
Eaves	8
Condensation & Moisture	8
Thermal Insulation (R Value)	8
Compliance	9
Preparation prior to Installation	9
Installation	9
Fixing - Both Pre coated and Raw Insulcon Panels	9-10
Please always refer to the Building Code of Australia Volume 1 & 2 for detailed information on your particular area	10-11
Installation (cont'd)	
Panel Layout - Both Pre coated and Raw Insulcon Panels	11
Expansion Joints - Both Pre coated and Raw Insulcon Panels	12
Corner Beads and Bottom edged - Both Pre coated and Raw Insulcon Panels	12
Jointing and Sealing - Both Pre coated and Raw Insulcon Panels	12
Installation (cont'd)	
Exposed Styrene - Both Pre coated and Raw Insulcon Panels	13
Masking - Both Pre coated and Raw Insulcon Panels	13
Primary Coat Render - raw panels only	13
Main Coat Render - Both Pre coated and Raw Insulcon Panels	13
Texture Finishes	14
Membrane Finish	14
Drawings	15-34
INSUL-CON Material Warranty	35

GENERAL INFORMATION

What is the Insulcon Panel System?

The Insulcon Panel System is a composite cladding system typically made up of an expanded polystyrene panel covered with alkali resistant fibre mesh and then a high polymer render base coat with a secondary standard acrylic render coat and then either a paint finish or an acrylic texture coating finish over the top applied to a steel or timber frame wall.

The basic components are:

- Wall wrap & wall wrap tape
- Expanded polystyrene panels
- Fixings and washers
- Alkali-resistant fibreglass reinforcing mesh
- External Angle/bead trims used around external edges
- Base coat of Insulcon high polymer modified render
- Second coat of Insulcon Acrylic Render
- Insulcon Texture finish and/or Insulcon membrane

Flashings, especially to windows, doors and parapet walls, are an essential component of all cladding systems but are usually supplied by either the window manufacturer or by the main contractor.

Know Your Panels

- Insulcon Pre Rendered Panels are a polystyrene panel that comes pre coated, with a first coat of Insulcon Polymer and an alkali resistant fibre mesh.

They are a strong, lightweight building material designed for exterior walls of buildings. Being pre coated, they can deliver significant cost and time savings on the job. Insulcon panels are available in different sized and are M grade density.

- Insulcon Raw Panels are plain polystyrene panels that are available in a range of lengths, thicknesses and are M grade density. These panels are manufactured to Australian Standards.

INTRODUCTION TO THE INSULCON PANEL SYSTEM

The Insulcon Panel System is an EIFS (External Insulated Finish System) based on M grade polystyrene panels combined with Insulcon render and texture finish products.

The system can be used in two forms:

1. Pre Rendered Insulcon Panels come pre coated with a first coat of an Insulcon high polymer modified render so they can deliver significant cost and time savings on the job.

As the first coat of render is the most crucial for adhesion to the polystyrene, this risk is eliminated from “on site”. Once installed they are wrapped with mesh (minimum covering all joints with alkali resistant fibre mesh and polymer render) and then have a second coat of Insulcon Acrylic Render which is applied on the job. They may then have an Insulcon Texture and Insulcon Membrane applied in line with the specifications of the job.

Additional advantages of being pre coated are that all panels are manufactured to controlled standards.

The process can be summarized as:

- Fixing of Insulcon Panels
- Application of alkali resistant fibreglass mesh
- Application of additional Coat of Insulcon Acrylic Render
- Application of Insulcon Texture Coating

2. Using raw (uncoated) Insulcon Panels that are an identical base panel but a first coat of Insulcon high polymer modified render (including the alkaline resistant mesh) is applied on the job site. They are subsequently finished exactly the same as the pre coated panel.

The process can be summarized as:

- Fixing of Raw Insulcon Panels
- Application of alkali resistant fibreglass mesh
- Application of first coat Insulcon high polymer modified render
- Application of second coat of Insulcon Acrylic Render
- Application of Insulcon Texture Coating

These systems have BRAC accreditation No: V11/02.

Insulcon Acrylic Render, Insulcon Texture, and Insulcon Membrane are products developed and manufactured by Insulcon Pty Ltd. Insulcon high polymer modified render is available in several formats including Insulcon Polymer, Insulcon Hi Lite +, Insulcon BAL Base and Insulcon Lightweight.

BAL 29 Compliance

BAL Base Render TM an Insulcon Pty Ltd product, has been independently tested for compliance with "Bushfire performance of external wall in accordance with AS 1530.8.1:2018" and achieved a BAL 29 compliance rating when used strictly in accordance with the instructions provided. It is a high polymer modified render for use in both pre coated and raw systems.

As well as compliance with all of the installation methods, specific attention is drawn to the requirement for the full thickness of render and texture coatings to be achieved:

1st coat	Nominal 5mm of Insulcon BAL Base Render
2nd coat	Nominal 4mm of Insulcon Medium Render
3rd coat	Nominal 1mm of Insulcon Texture

Note: Minimum combined thickness of 9.2mm

Failure to achieve these thicknesses will invalidate the test results showing compliance with BAL 29.

This manual serves as a reference guide but does not replace professional engineering or design consultancy. To determine the suitability of this product for its intended use, professional advice should be sought. Sound building practices must always be followed, and this manual may not cover all relevant details. For all design, engineering, and installation concerns, professional guidance is recommended. This manual should be treated as a complete document; do not separate or distribute individual pages. For the most up-to-date version of the Insulcon Panel Specification & Construction Drawing manuals, please visit www.insulcon.com.au.

TECHNICAL SPECIFICATION

Weights

Table 2 Approximate

Weights of Insulcon Pre Rendered Panels

Size	Weight
2400 x 1200 x 75mm	9.90kg
2400 x 1200 x 100mm	10.80kg
2400 x 1200 x 150mm	13.45kg
Other sizes are available on request	

Table 3 Weights of Raw Styrene Panels
(M Grade)

Size	Weight
2400 x 1200 x 75mm	4.40kg
2400 x 1200 x 100mm	5.30kg
2400 x 1200 x 150mm	7.95kg
Other sizes are available on request	

POLYSTYRENE SHEET GRADES AND USES

M Grade Panels – Insulcon Panel system requirement

- Used on both ground and upper floor walls
- Medium thermal rating
- Medium acoustic resistance
- Medium resistance to damage
& knocks
- High resistance to water absorption

Strength data

Insulcon Panels have a high compressive strength and meet Australian Standard 1366. 3 – 1992, additionally the impact resistance is dramatically improved by the render coating. Please refer to the Australian Standard for specific design values.

Australian Standards

Insulcon Panels comply with Australian standards 1366.3 – 1992 (reconfirmed August 2018) for polystyrene.

Surface finish

Insulcon pre coated panels are supplied with an alkali resistant mesh and first coat finish that is designed to accept a variety of Insulcon Render coatings. For this purpose the supplied finish is a left off the trowel finish. Raw polystyrene is supplied with an as manufactured finish.

STORAGE AND HANDLING

Insulcon Panels have the great advantage of being relatively light and in most situations are able to be handled by one person (see table 1). There are however some cautions that are similar to those when handling roof sheets. Being a large flat panel, under windy conditions the panel can be caught by the wind whilst being carried and be pulled out of the person's hands potentially causing imbalance and falling.

The falling panel could cause serious damage to people below. It is strongly recommended that Insulcon panels not be fitted under windy conditions where there is potential for this hazard. As with all construction, a risk assessment should be carried out prior to installation.

For storage and transport purposes, the panels should be stacked flat and in the case of transport, suitable restrained to stop wind getting under the

sheets causing them to fly off the pack. Crushing of the edge of the sheet with ropes can be avoided by the use of heavy folded cardboard made into an angle.

Exposed polystyrene will deteriorate if left exposed to UV rays. Ensure that the exposed styrene is protected at all times.

GENERAL DESIGN REQUIREMENTS

General design requirements that should be incorporated at the design stage of the building:

Concrete slab design

Concrete slabs should be finished with a straight and smooth edge where the panel is expected to overlap. A rebated slab edge as is normally used for brickwork is not required however will not stop Insulcon Panels being used. In this case the builder will need to provide a smooth and straight rebate for panel installation and consider external doorways. Please refer to drawing INS/PNL/2 Concrete Slab General Arrangements, in Attachment 2.

Stud wall design

As the Insulcon panels are screwed directly onto the timber or metal studs, spacing of the wall studs needs to be considered in relation to expected wind loads. In normal situations stud spacing is up to a maximum of 600mm and up to a maximum of 50mm from the edge of the panel.

In high wind areas this can be reduced to 450mm spacings. Builders should check with local building regulations to determine appropriate wind considerations.

Panels must be securely attached to the stud, or additional support plates (Back Blocking) will be necessary at the panel joints to ensure each panel is individually fixed. Back blocking enables joining off the stud.

Wall bracing if required, should be considered in the building design of wall thicknesses. As Insulcon Panels are 1200mm wide, stud spacing should be exact division of 1200mm (eg 600mm) so that each panel can finish on a wall stud and intermediate false studs do not need to be installed during the Insulcon Panel installation. All framing must be in accordance with AS1720 or AS 1684 for timber stud walls or AS4600 or NASH standard for steel stud walls.

Make sure that there is adequate framing around windows and doors to perimeter fix the panels. An extra stud is required on internal corners so that both sheets can be fixed. Please refer to drawings for details on fixing required around a window. An extra stud is required on internal corners so that both sheets can be fixed.

Electrical penetrations

Electrical power points, flood lights, security monitors etc. need to have a fixing plate installed to the wall frame prior to sheet installation.

Flashings

Sealants cannot be fully relied on for detailing around parapets, box gutters, windows etc. with good design being the only real solution. Parapets must be metal flashed and box gutters are to be back flashed. This work should be carried out by plumbers. Please refer to drawings for details on this type of flashing.

Light Reflective Value for Colour Selection

(LRV) refers to the amount of light that a color reflects. Substrates such as polystyrene tend to undergo greater expansion and contraction due to temperature fluctuations. To maintain the longevity of your system and uphold your warranty, please ensure that the LRV is at Minimum* >45%.

GENERAL DESIGN REQUIREMENTS (Cont'd)

Parapets

Exposed Parapets by their unsupported height need to be well braced and may require extra studs and noggins for strengthening to reduce movement with wind load. Insulcon's recommended solution for parapets is to use a purpose made metal flashing on the top of the wall. Individual engineered solutions that do not use a metal flashing are possible but must only be used after detailed consultation of the specific installation with Insulcon. Please refer to the drawings for details.

Eaves

There is no minimum eaves size specified for this system. Normal building practices should be observed.

Condensation & Moisture

Closed panel systems such as Insulcon panels have limited water vapour transmission but this can be further reduced by application of an Insulcon Membrane finish. The primary advantage of Insulcon Panels is their resistance to water penetration in the first instance. This EIFS system does not negate the need for breathable building paper & weatherproof flashing tape, which acts as a last line of defence for moisture ingress. The building design should incorporate consideration of the building breathing and solutions such as small vents should be used. Weep holes are not a requirement of this system.

Building Fabric - Thermal Insulation.

Must be used in conjunction with other building elements to achieve a Total R-Value subject to state and territory variations.

Table for Insulcon Panel System Thermal R Value Ratings

Panel Thickness	R-Value without Wall Insulation 600mm centres		R-Value with Wall Insulation (R2.5 Glasswool) 600mm centres		R-Value without Wall Insulation 450mm centres		R-Value with Wall Insulation (R2.5 Glasswool) 450mm centres	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
75mm	2.31	2.43	4.22	4.46	2.33	2.45	4.17	4.41
100mm	2.93	3.08	4.85	5.12	2.94	3.09	4.8	5.06
150mm	4.16	4.37	6.09	6.42	4.17	4.38	6.04	6.37

PREPARATION PRIOR TO INSTALLATION

Compliance

Building products and systems that are CodeMark Certified, including the Insulcon Panel System, must be installed in strict accordance with the CodeMark Certificate of Conformity and comply with the relevant Building Code requirements for the specific job site, as mandated by the Australian Building Code, State Regulators, and JAS-ANZ.

Before beginning any system installation, it is essential that Builders and Installers verify the project requirements against the applicable Insulcon Panel System CodeMark Certificate of Conformity. This ensures that the Insulcon Panel System is in alignment with the building surveyor's planning approvals for that particular site.

If the product or system is not installed according to the CodeMark Certificate conditions and associated installation guidelines, the CodeMark Certification and NCC compliance will be considered void and non-compliant.

Any failure to follow the Insulcon Panel System installation guidelines and specifications will mean that the Insulcon Panel System CodeMark Certification is not valid for that installation, and compliance to NCC cannot be claimed for that specific job site.

In the event of non-compliance:

- The installed system will require reassessment by the relevant parties and may need a Performance Solution to demonstrate compliance with the NCC (Approved by a qualified engineer).
- The CodeMark Certificate of Conformity will be revoked for the specific job site under the NCC requirements.
- Insulcon will not be responsible for any specifications outside of the Insulcon CodeMark Certified system. Any alternative solutions and compliance verification are the responsibility of the installer and/or builder.

Installers must hold the appropriate license to install cladding as required by the governing State Building Authority. Licensing and registration requirements vary by state and territory, so it is important to ensure you meet the necessary criteria.

Follow all Insulcon design and installation guidelines, along with the corresponding Insulcon Construction Drawing details. Insulcon's warranty for the system can be issued upon completion of the Insulcon Material Warranty request form, which confirms that the installation complies with the Insulcon Certificate of Conformity.

PREPARATION PRIOR TO INSTALLATION

The following items should be installed prior to commencing installation of Insulcon Panels:

- Wall wrap & wall wrap tape
Must be manufactured in accordance with AS 4200.1 and installed in accordance with AS 4200.2 including taping with a wall-wrap compatible tape; around the wall perimeter, at all joins and around all penetrations.
- Windows
- Door frames
- Eave linings
- Flashings
- Fixing Plates for electrical items
- Fixing plates for non-light weight wall attachments such as washing lines
- Fixing plates for down pipes
- Internal wall linings may be fitted post render stage however if fitted latter then screws should be used on external walls.
- **DO NOT NAIL IF FITTING AFTER RENDER STAGE AS IT WILL CAUSE CRACKING!**

INSTALLATION

Fixing – Both Pre coated and Raw Insulcon Panels

The panels are designed to be fixed directly over the timber or steel stud walls by self-drilling screws with fixing washers. The screws used should be 10g x 100mm Class 3 (or higher) countersunk for 75mm panels. (Class 3 are 10 gauge zinc coated wood or metal screws. Insulcon Pty. Ltd. supplies approved washers (48mm, Nylon, red, BuildSmart washers)

which meet the Insulcon specification (Ref Doc 044) and no substitution is allowed for system compliance.

The environment poses several specific threats to a system such as salt corrosion, that when addressed correctly can be effectively controlled. All fastenings must be protected against corrosion to the standards set out in notes to Table 7.5.2 of the Building Code of Australia 2022, Volume 2, as published from time to time. In summary this requires screws to be Grade 8 316 or 316L Stainless Steel within 1km of breaking surf and within 100m of salt water not subject to breaking surf. Additionally screws are required to be Grade 8, 316 or 316L Stainless Steel within heavy Industrial areas.

Please always refer to the Building Code of Australia Volume 1 or 2 for detailed information on your particular area.

A false stud nailed to the existing stud to increase its width is the easiest way to allow enough room to fix both panels. Please refer to drawing INS/PNL/3 Butt Joint Showing False Stud At Join, for details.

Alternatively, additional support plates (Back Blocking) will be necessary at the panel joints to ensure each panel is individually fixed. Please refer to drawing INS/PNL/3B Back Blocking, for details.

The fasteners should be driven home until the head of the washer and fastener is slightly recessed into the panel. Do not crush the panel or split the washers by overdriving the fastener. Glue on the back is not required under normal installations but can be useful for panel positioning.

Before the adjoining panel is put in place, apply a run of low solvent adhesive such as Bosman Low Expanding Foam (Expander foam) down the edge to be joined to and then butt panels up to

5MM PANEL MAXIMUM FIXING SPACING (MM)					
Stud Spacing	Walls	AS 4055 Wind Class			
		N1	N2	N3	N4
450 mm	Within 1200mm of corners	365	365	365	275
	Away from corners	365	365	365	365
600 mm	Within 1200mm of corners	365	365	365	275
	Away from corners	365	365	365	365

The maximum fixing spacing varies based on the wind classification and the table above shows the maximum spacing allowed. As full Insulcon panels are 2400mm long, an even distribution of fasteners when the panel is used vertically is at 300mm spacing which is the recommended approach however in N4 wind classification areas this must be reduced to less than 275mm on 600mm stud spacings and also within 1200mm of corners for 450mm stud spacing so a spacing of 240mm will give an even distribution of fixings down the panel. When two panels meet on a stud, both edges need to be fixed to the stud.

each other so that the two panels bond. Do not use high solvent adhesives such as "Liquid Nails".

Note: Pre Coated Insulcon Panels should not be left for any longer than 4 - 5 weeks without additional render / texture stages being completed.

Any exposed styrene edges are required to have a base coat applied with mesh within 7 – 10 days of the panels being installed. Raw Insulcon Panels should not be left for more than 7 – 10 days without additional render / texture stages being completed. Over exposed raw polystyrene can be severely affected by UV rays and weather conditions, resulting in a dusty film that must be removed prior to any render applications.

INSTALLATION (Cont'd)

Degradation of EPS surface generally occurs where a Builder installs uncoated panels a long time prior to the render contractor being on site and bare polystyrene is exposed to the UV light from the sun for 10 days plus.

If this has occurred, any oxidation on the surface of the polystyrene must be removed with a wire brush or stiff broom and water, and then the clean surface must be scratched / scored to provide a sure key before rendering begins. Sheets exposed to sunlight should not be left uncoated for more than 10 days. Always re-check (for fine white powder on surface) first by rubbing your hand over the surface.

Panel Layout - Both Pre coated and Raw Insulcon Panels

Panels may be hung either horizontally or vertically and always finish on a stud. Butt joints must be tight and securely fastened as above.

Panels can be easily cut using either a hand saw or power saw fitted with a masonry blade. When cutting sheets, ensure that all edges are square so as to ensure there are no gaps when sheets are fitted up next to each other.

Expansion joints should utilise a false stud within the wall to ensure that both sides of the expansion joint are securely fastened. Frequency of expansion joints should be as specified by the building designer but in general, not less than every 6 meters along a straight wall. Do not overhang sheets by more than 50mm as this may cause warping as the render coat cures.

The location of joints around windows and door opening should be considered. Avoid joints that coincide with the edge of the window or door to minimise risk of cracking due to movement of the door or window frame. Windowsills should have a minimum slope of 10 degrees. This can be achieved by either cutting the polystyrene or incorporating the slope into the render system, to ensure water runs away from the window and to the outside. Ensure a gap of 2-3mm is left around all penetrations to allow sealant to be applied.

Expansion Joints- Both Pre coated and Raw Insulcon Panels

Expansion joints and their location are one of the most important tasks of the applicator in conjunction with the building designer to prevent later movement defects.

Always use them horizontally between floor levels (ground to 1st floor etc.), regularly at penetrations, and every 4 – 6 lineal meters, at both ends of sliding door bulk heads, garage lintels at both ends and at junctions between larger wall mass areas. Always use them between wall frames and truss gable roof end frames, wall frame to wall frame joints in middle of a wall without penetrations can move and it is recommended to locate expansion joints at such points.

Corner Beads and Bottom edges- Both Pre coated and Raw Insulcon Panels All corners MUST be protected with an angle bead. Aluminium or stainless-steel angles must be used. The bead is fixed to the corner using a non-solvent based adhesive such as “Zero Nails”.

Do not use high solvent adhesives which will damage the panel. Check beads are level and straight adjusting before the adhesive sets.

Where reveals or sills are less than 30mm, a 1.5mm angle shall be fitted between the window frame and the styrene. Do not bevel sheets onto lead flashings. Sheets should be set square and have a starter channel fitted to the bottom edge.

An aluminium channel with built in drain holes is available from Insulcon Pty Ltd as the preferred method of bottom edge protection whilst also assisting in the mounting of the panels.

Where the Insulcon Panel meets another substrate, ie brickwork, the corner or join MUST be protected with an angle bead.

Jointing and Sealing- Both Pre coated and Raw Insulcon Panels

Sealing is the most critical part of the installation process. The proper sealing of all penetrations including windows, doors, water pipes and fixing plates is imperative to ensure that water cannot reach the finished wall cavity causing rotting of the timber frames and other dampness problems.

Insul-con Pty Ltd recommends high quality sealants such as Sikaflex 1A for caulking and Bosman Low Expanding Foam (Expander foam) for joints in panels to be used.

Once the panels are in place, all joints must be over meshed. Please refer to drawing INS/PNL/6 Window Penetrations Step 2 – Angles and Mesh for further detail.

Where running mesh up to corner beads, apply the mesh to overlay the edge of the bead but not onto the bead corner edge. Alternatively, the mesh can be under the bead.

Alkali Resistant Fibreglass mesh is required to be used. Insulcon specifies and supplies 5mm x 5mm or 10mm x 10mm / 160g /m2 mesh to be used.

Sealant bead size for caulking should be approximately 6-8mm and should be applied after render coatings are complete, usually complete by a sealant specialist.

INSTALLATION (Cont'd)

Exposed styrene- Both Pre coated and Raw Insulcon Panels

Exposed polystyrene must not be exposed to the ground and moisture as there is the potential for water capillary action. If raw polystyrene is exposed to the elements it will deteriorate (even on base sheet edges facing down to the ground or roof) as discussed under the Installation, Fixing section. Insulcon specify a range of third-party sealers suitable for this purpose such as Fuller WPM 300 Waterproof membrane.

Generally, ground clearance should be 100mm above paving and 150mm above soil ground or unpaved areas and landscaping must not be built up the panels.

Masking - Both Pre coated and Raw Insulcon Panels

Insulcon coatings have extremely good bonding properties so the best way to not have them on other surfaces is through proper masking.

All windows, doors, roofs, floors, bargeboards etc should be masked as well as smaller items. Use a vinyl tape and keep the masking 5 –7mm away from the panels so that you do not render in your masking. If you do accidentally get any Insulcon coatings onto other surfaces, clean up with clean water immediately and rinse well.

Preparing - Pre Coated Panels only

Before beginning to apply any coatings, ensure that all surfaces are clean and free from contaminants. A render coat of Insulcon high polymer modified render is required to all joints and then the 200mm mesh is laid on top, and troweled in flat.

Primary Coat Render - raw panels only

Before beginning to apply any coatings, ensure that all surfaces are clean and free from contaminants.

Exposed styrene edges that have been exposed to the weather for some time can develop a dusty film (discussed earlier in the Fixing section); this film must be removed prior to rendering. These exposed areas should then be coated with Insulcon Patch.

For raw Insulcon Panels, a primary render coat of Insulcon high polymer modified render 3 to 5mm thick is required first coat and then the mesh laid on top, overlapping the mesh by 100mm, and troweled in flat.

Make sure that no parts of the mesh stick up from the coat as this will create an uneven finish after the topcoat is applied (although this will not affect the functionality of the system). Do not use Insulcon Acrylic Render for this application.

Main Coat Render - Both Pre coated and Raw Insulcon Panels

After meshing is complete and the Primary Coat Render has been applied (Raw Panels only) then an Insulcon Acrylic Render coat is to then be applied to the entire substrate, to a thickness of 2 to 5mm depending on the finish required.

Ensure a minimum render thickness of 5mm in total has been achieved. Unless in the case of a BAL system. See thicknesses for this requirement under BAL Requirements in this manual.

The main Insulcon Acrylic Render coatings are detailed in the attachments however please contact Insulcon Pty. Ltd. for a full list of Insulcon Acrylic Render coatings and finish types. Insulcon high polymer modified render can also be used instead of Insulcon Acrylic Render as the second coat.

Insulcon Acrylic Render should only be applied in dry conditions with temperatures between 10 – 30 degrees Celsius. The time frame between first and second coats of render should be enough that the first coat of render feels dry, and this will be dependent on the weather conditions.

Texture Finishes

A wide range of Insulcon texture finishes can be applied. Insulcon Texture should only be applied in dry conditions, without direct sunlight on extreme days and not in high wind periods with temperatures between 13 – 30 degrees Celsius.

It is very important that the render coats are fully dried before the texture coat is applied or variations in colour and defects in the texture coat will occur. Although this is weather dependent the period for the render to dry should be not less than 7 days.

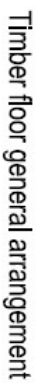
Membrane Finish

Insulcon recommends Insulcon Membrane sealer over the finished Insulcon Texture coat for maximum durability and improves cleanability however it is not a mandatory part of the system, unless in Coastal areas. Coastal areas located within 1km of the shoreline or large exposure to salt air, a protective weatherproof membrane topcoat must be used in all cases.

It is applied in a roll on fashion. It comes in a semi matt finish, which does slightly change the appearance of the texture coating.

The finish of the texture will slightly appear smoother and may have a slight shine to the finish instead of the matt look achieved by the texture coating.

1.	Drawing INS/PNL/1	Timber Floor general arrangement
2.	Drawing INS/PNL/2	Concrete slab general arrangements
3.	Drawing INS/PNL/3	Typical Butt joint with false stud
4.	Drawing INS/PNL/3B	Back Blocking
5.	Drawing INS/PNL/4	Roof Junction details
6.	Drawing INS/PNL/5	Wall to balcony arrangement
7.	Drawing INS/PNL/6	Window Penetrations
8.	Drawing INS/PNL/7	Panel above masonry wall
9.	Drawing INS/PNL/7a	Panel above masonry wall step out
10.	Drawing INS/PNL/7b	Panel Overhanging First Floor Level
11.	Drawing INS/PNL/7c	Additional faux flashing
12.	Drawing INS/PNL/10	Balustrade wall
13.	Drawing INS/PNL/11	Junction to masonry wall
14.	Drawing INS/PNL/12	External corner detail
15.	Drawing INS/PNL/13	Internal corner detail
16.	Drawing INS/PNL/14	Expansion joints
17.	Drawing INS/PNL/16A	Window Sealing Details
18.	Drawing INS/PNL/16B	Meter Box sealing
19.	Drawing INS/PNL/16C	Parapet wall details
20.	Drawing INS/PNL/16D	Box gutter details
21.	Drawing INS/PNL/16E	Saddle Flashing Detail



1. Do not allow panel to block sub-floor ventilation
2. Vents to be cut in to meet building standards
3. Breathable Sarking to meet building standards
4. 50mm minimum clearance for paved areas, allow 100mm above soil/gardens
5. 50mm minimum panel overhang. Panel NOT to overhang a greater dimension than panel thickness



INSUL-CON
INSULATION & CONSTRUCTION

INSULCON PTY. LTD.

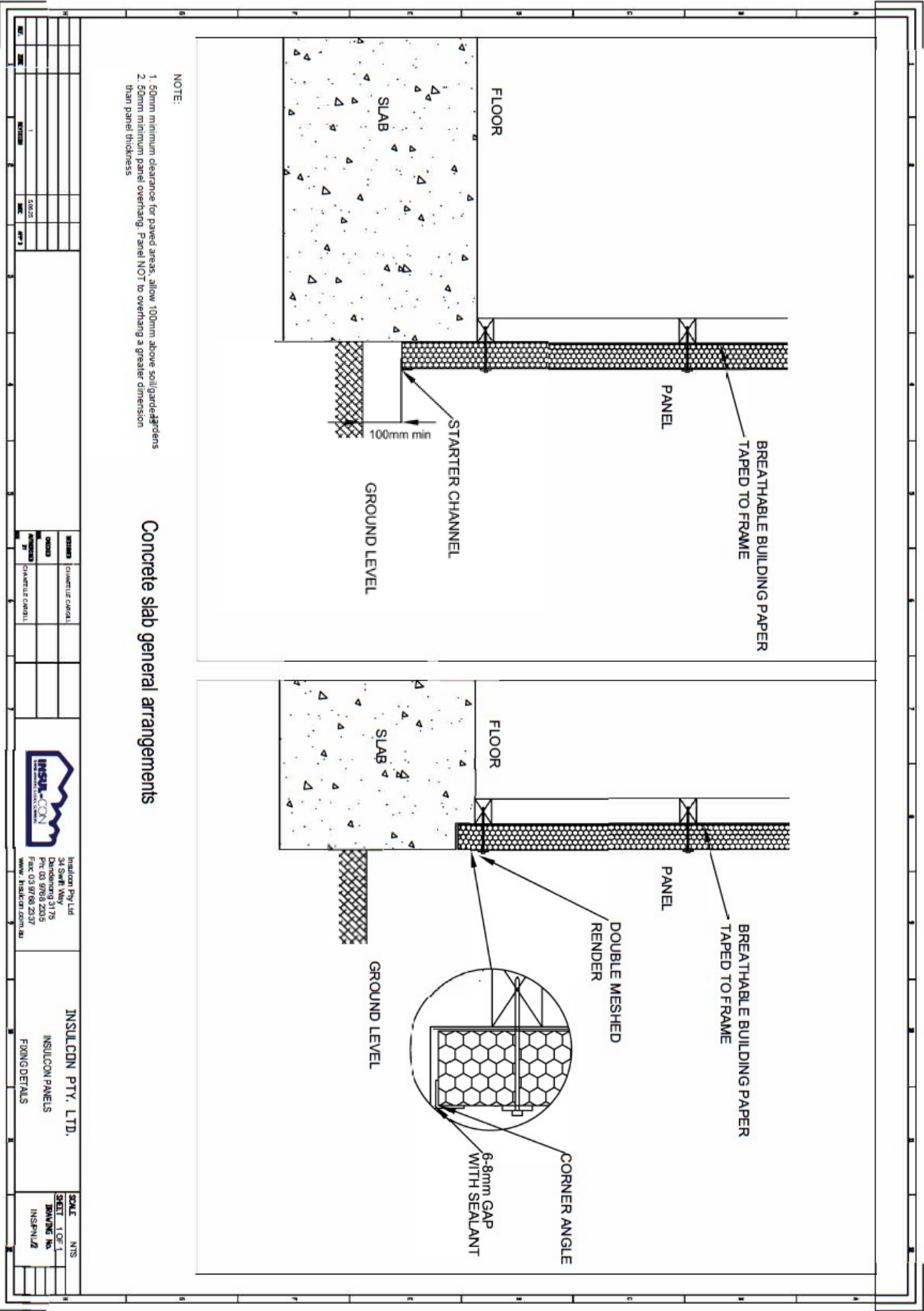
INSULCON PANELS

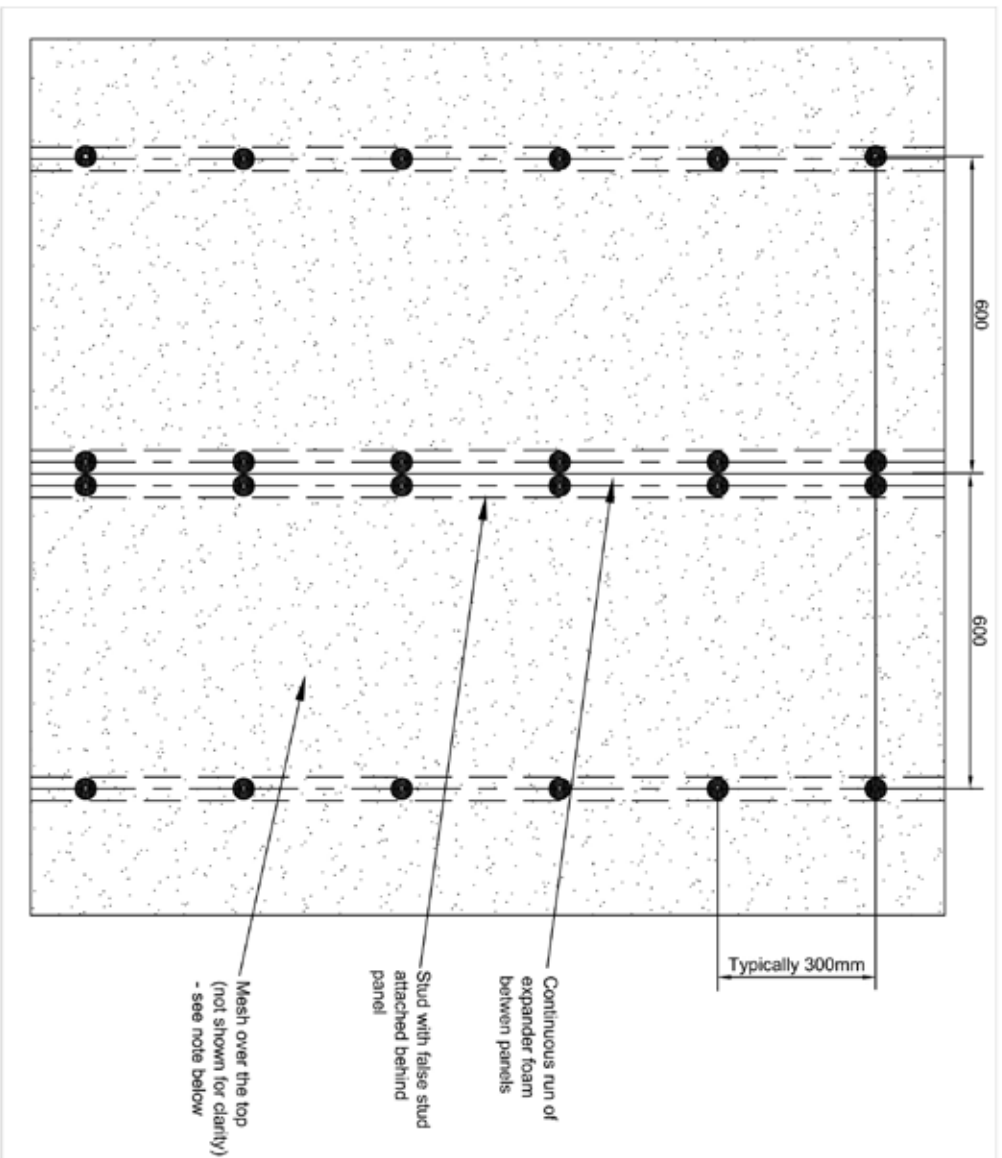
FIXING DETAILS

SCALE	NTS
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SHEET 1 OF 1

INS/PNL¹





Typical butt joint showing false stud at joint
(screwed washers can be offset for ease of fixing or narrower studs)

Maximum allowed fastener spacing

Stud Spacing	Walls	75mm Panel Maximum Fixing Spacing (mm)			
		AS 4055 Wind Class			
		N1	N2	N3	N4
450 mm	Within 1200mm of corners	365	365	365	275
	Away from corners	365	365	365	365
600 mm	Within 1200mm of corners	365	365	365	275
	Away from corners	365	365	365	365

Note: Mesh (ref D00042) is to be fixed in a continuous piece across joint
Where mesh joints are required they are either overlapped or covered by 200mm wide jointing mesh

REV

DATE

BY

APP'D

REV

DATE

BY

APP'D

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WWW.INSULCON.COM.AU

INSULCON PANELS

FIXING DETAILS

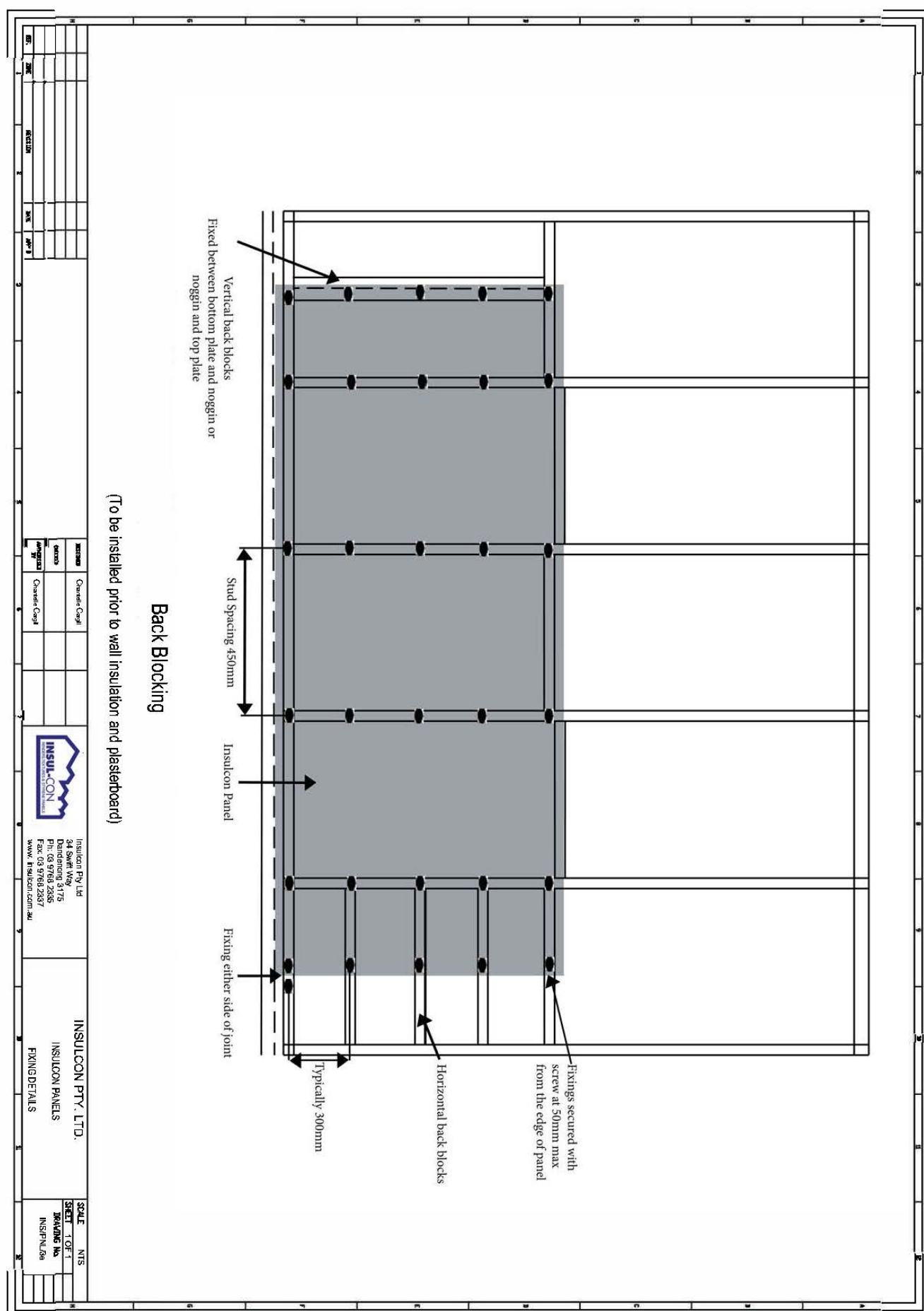
SCALE

NTS

SHEET 1 OF 1

DRAWING NO.

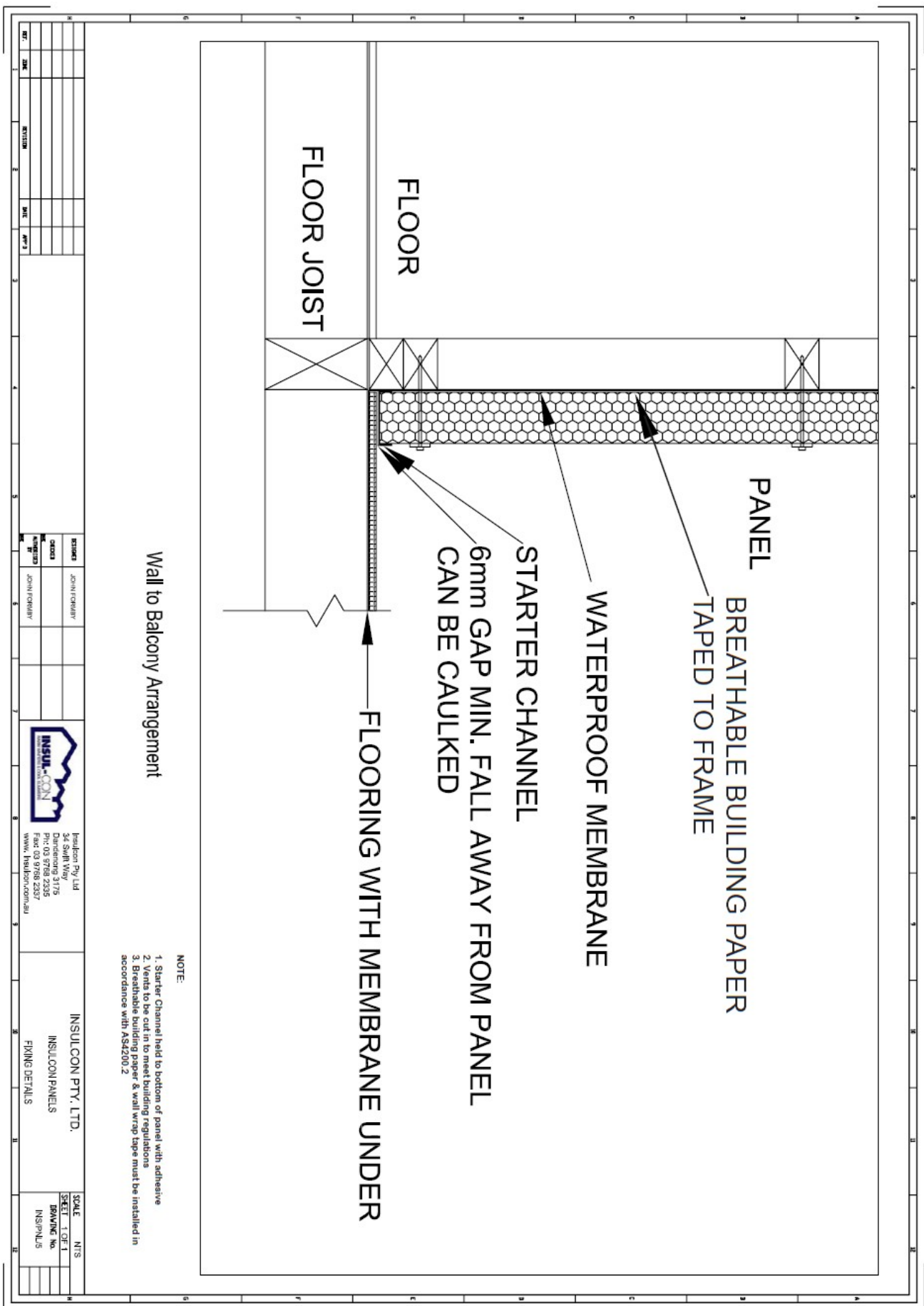
INS/PNL/J



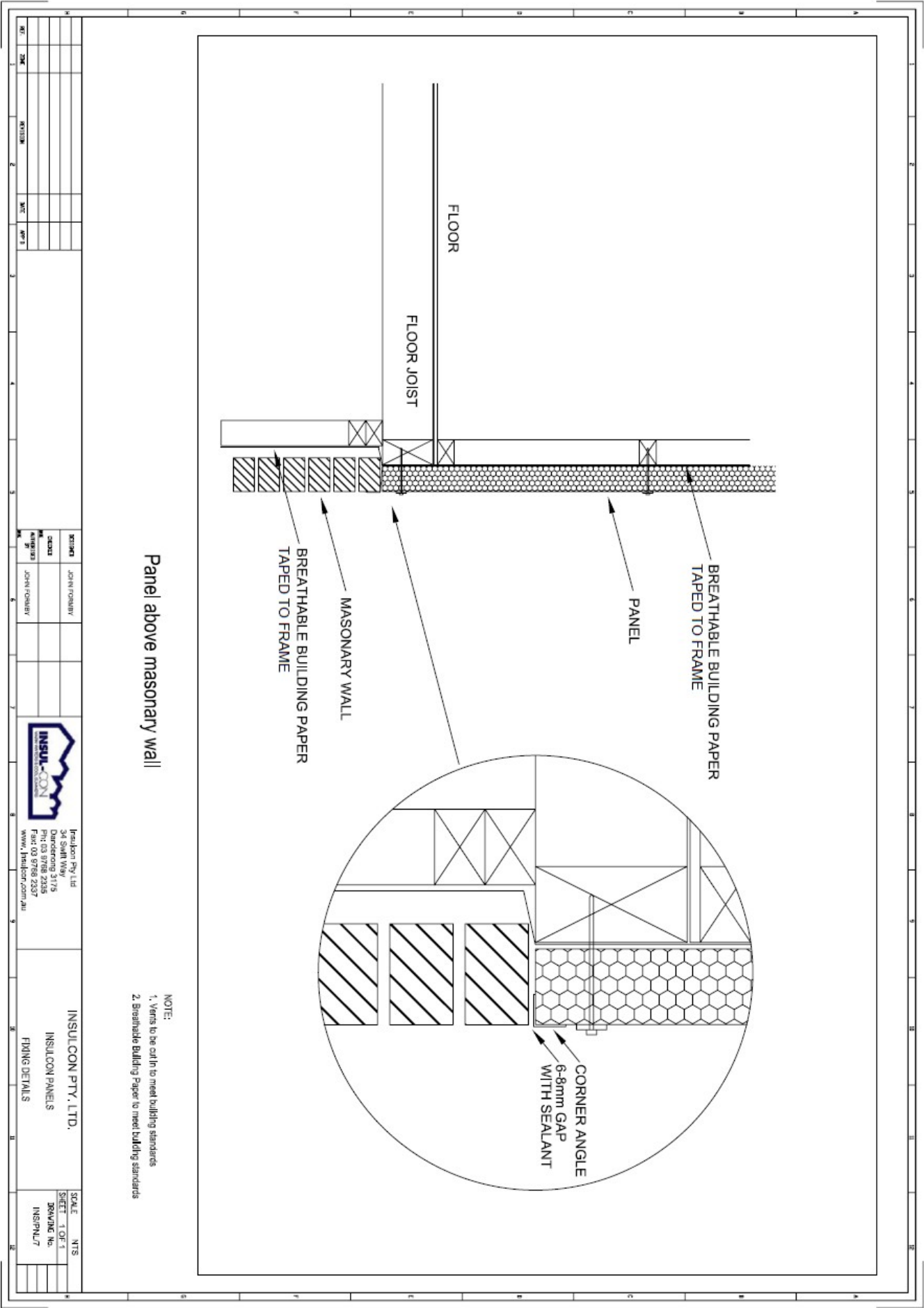


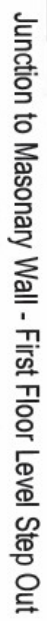
1. Breathable building paper & wall wrap tape must be installed in accordance with AS4200.2

SCALE	NTS
SHEET	1 OF 1
DRAWING NO.	
INSPNL/4	



INSUL-CON 21





1. Starter Channel held to bottom of panel with adhesive
2. Breathable building paper & wall wrap tape must be installed in accordance with AS4200.2

INSUL-CON
REPAIRS, REFINISHES & STRETCHES FLOORING

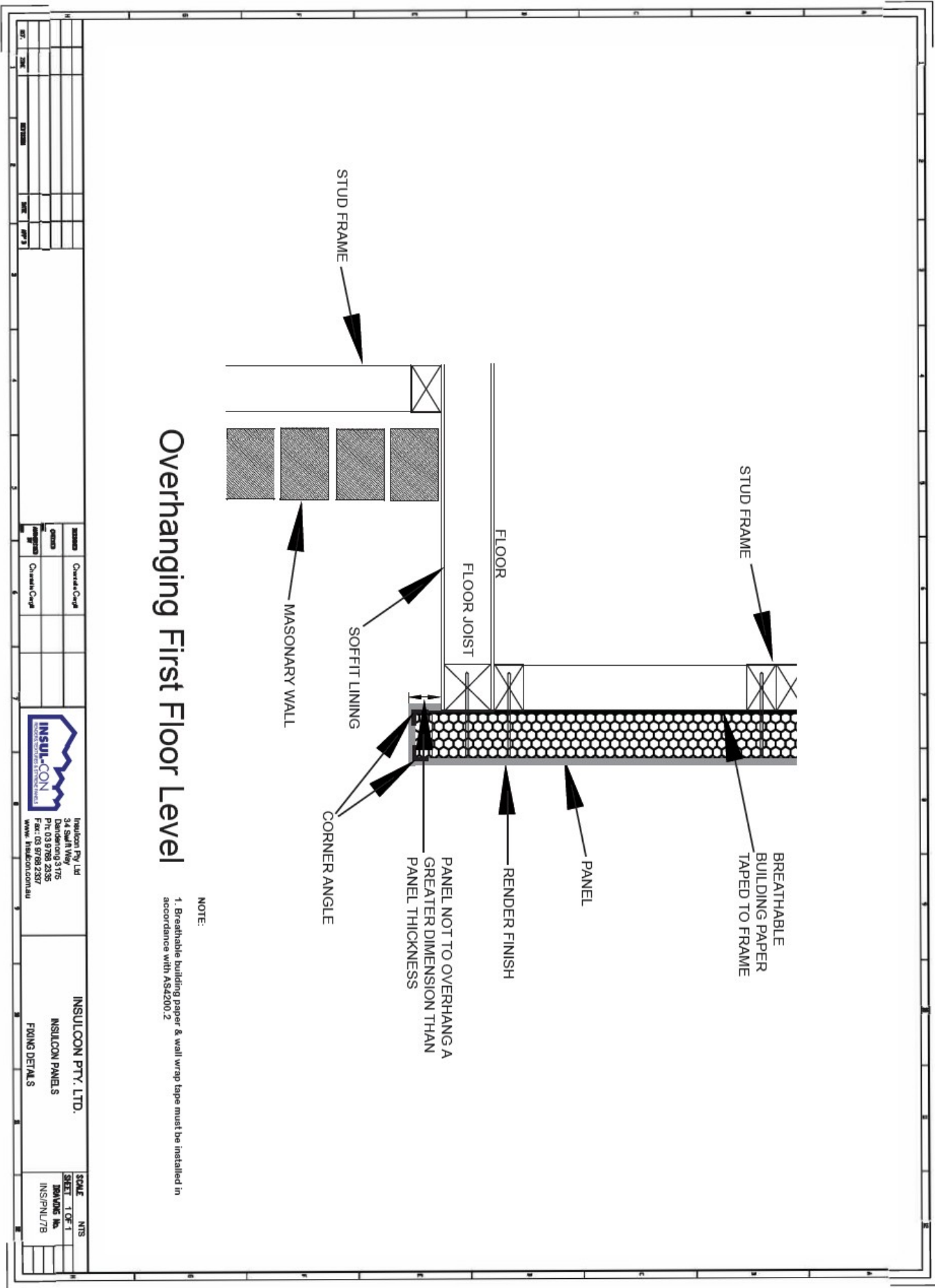
Insulcon Pty Ltd
34 Swift Way
Dandenang 3175
P/H 03 9768 2335
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www.insulcon.com.au

INSULCON PTY. LTD.

INSULCON PANELS

SCALE	NTS
100	100

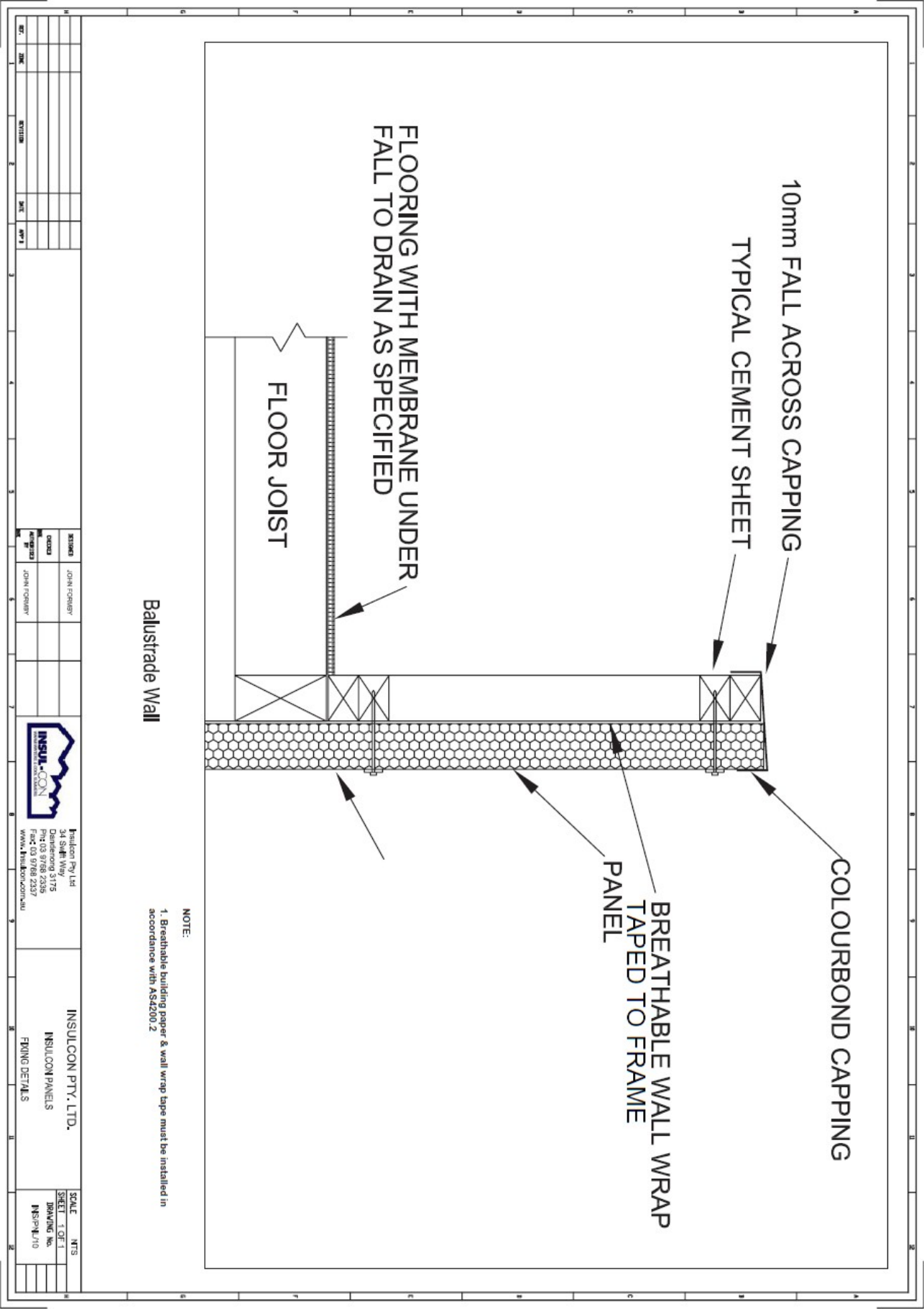
DRAWINGS No.
INS/PNL/7a



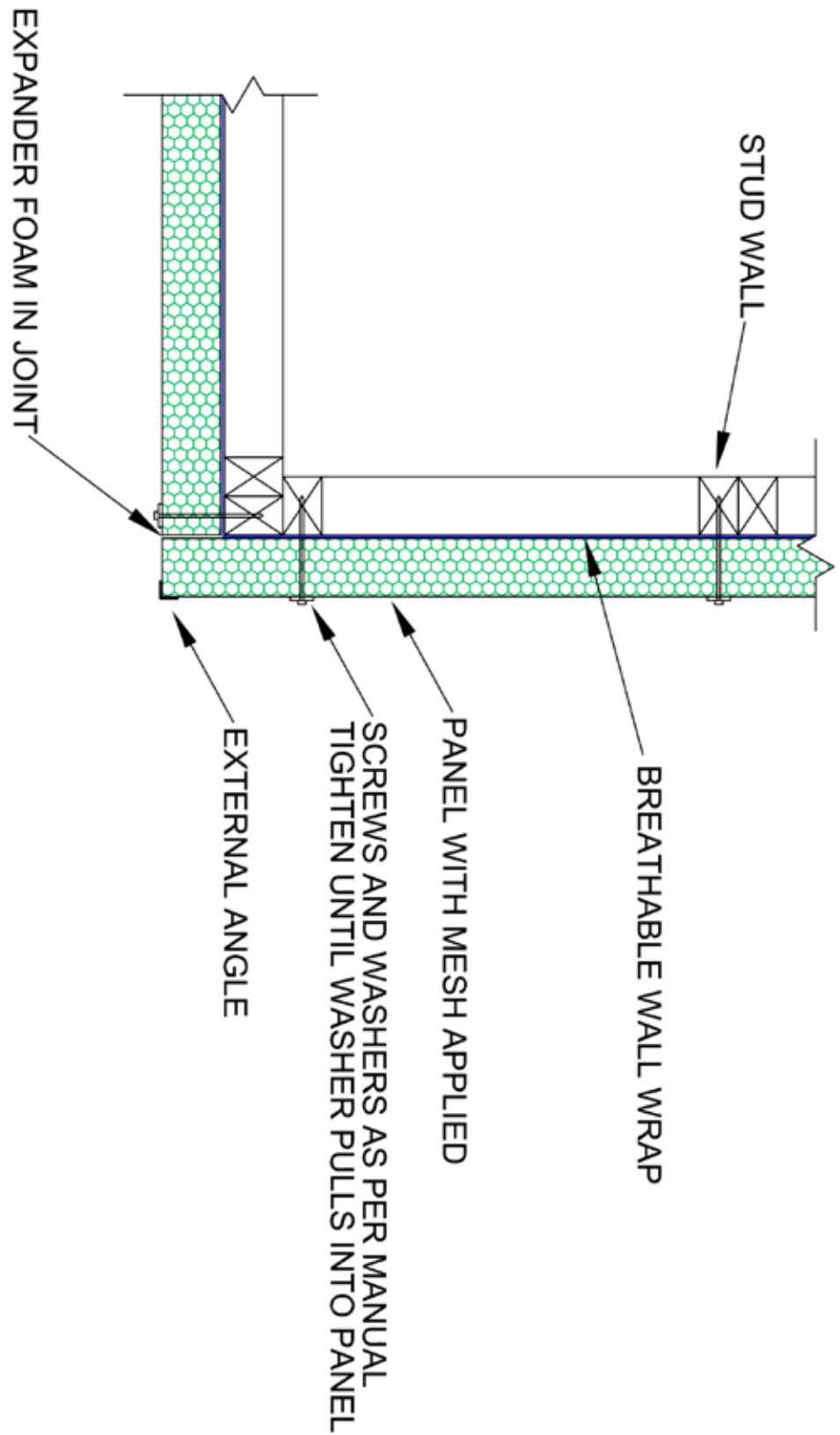


1. Starter Channel held to bottom of panel with adhesive
2. Breathable building paper & wall wrap tape must be installed in accordance with AS4200.2

INSUL-CON
MINERAL FIBER INSULATION PRODUCTS



[illegible]



External Corner before render applied - Plan View

NOTE:

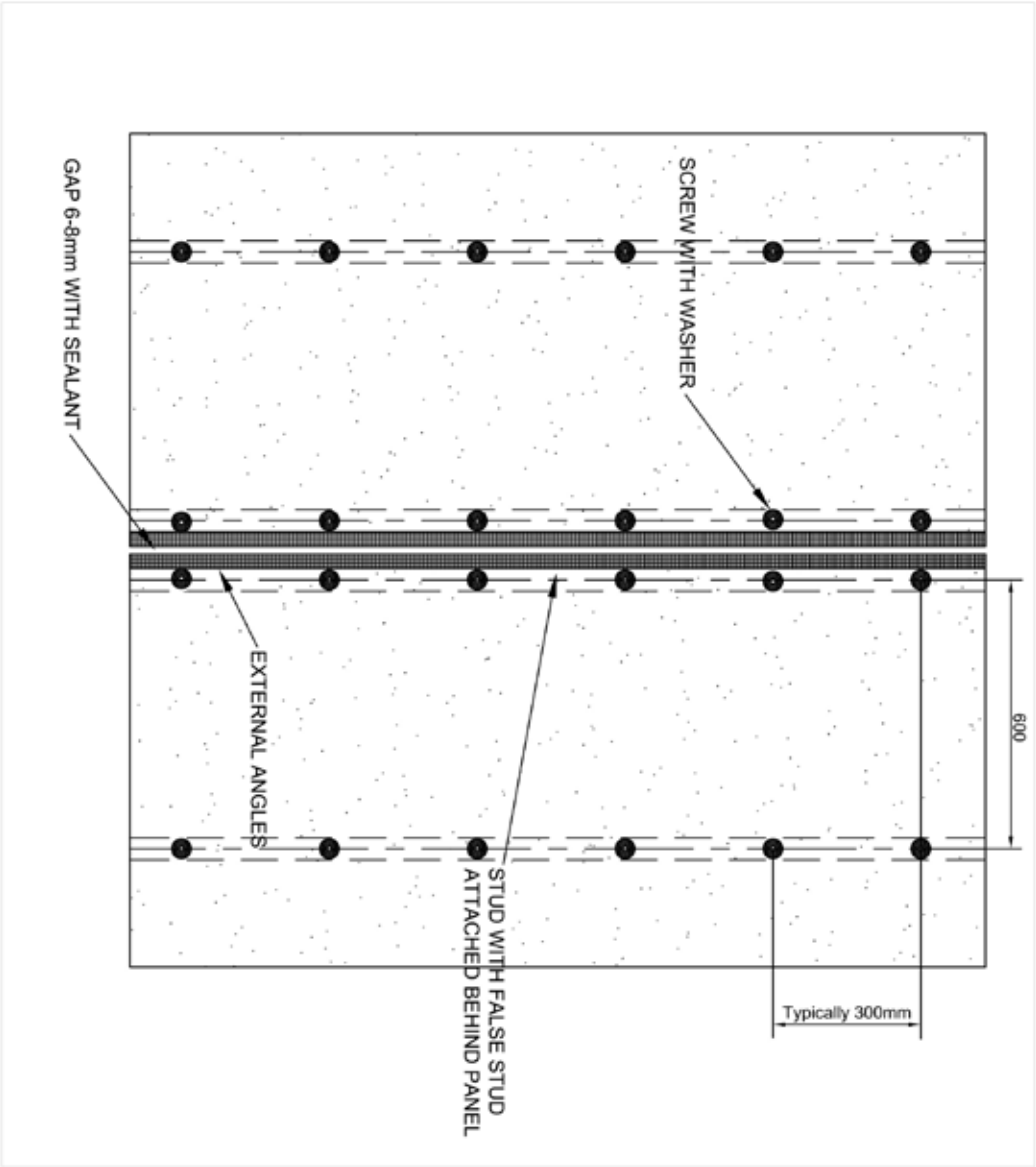
1. Aball resistant mesh ref D00042 to be used
2. Mesh joints must be overlapped or covered with a mesh joining strip
3. External angle ref D00 037
4. Screws & Washers ref D00043 and D00044.

INSULCON PTY. LTD.

INSULCON PANELS

SCALE	NTS
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DRAWING NO.
INSPIR/112



Expansion Joint - Elevation
Horizontal or Vertical

Maximum allowed faster spacing

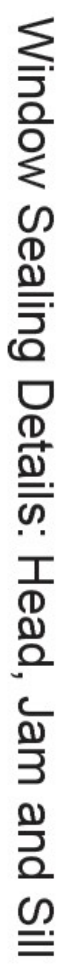
Stud Spacing	Walls	75mm Panel Maximum Filling Spacing (mm)			
		AS 4055 Wind Class			
450 mm	Within 1200mm of corners	N1	N2	N3	N4
	Away from corners	365	365	365	275
600 mm	Within 1200mm of corners	365	365	365	275
	Away from corners	365	365	365	365



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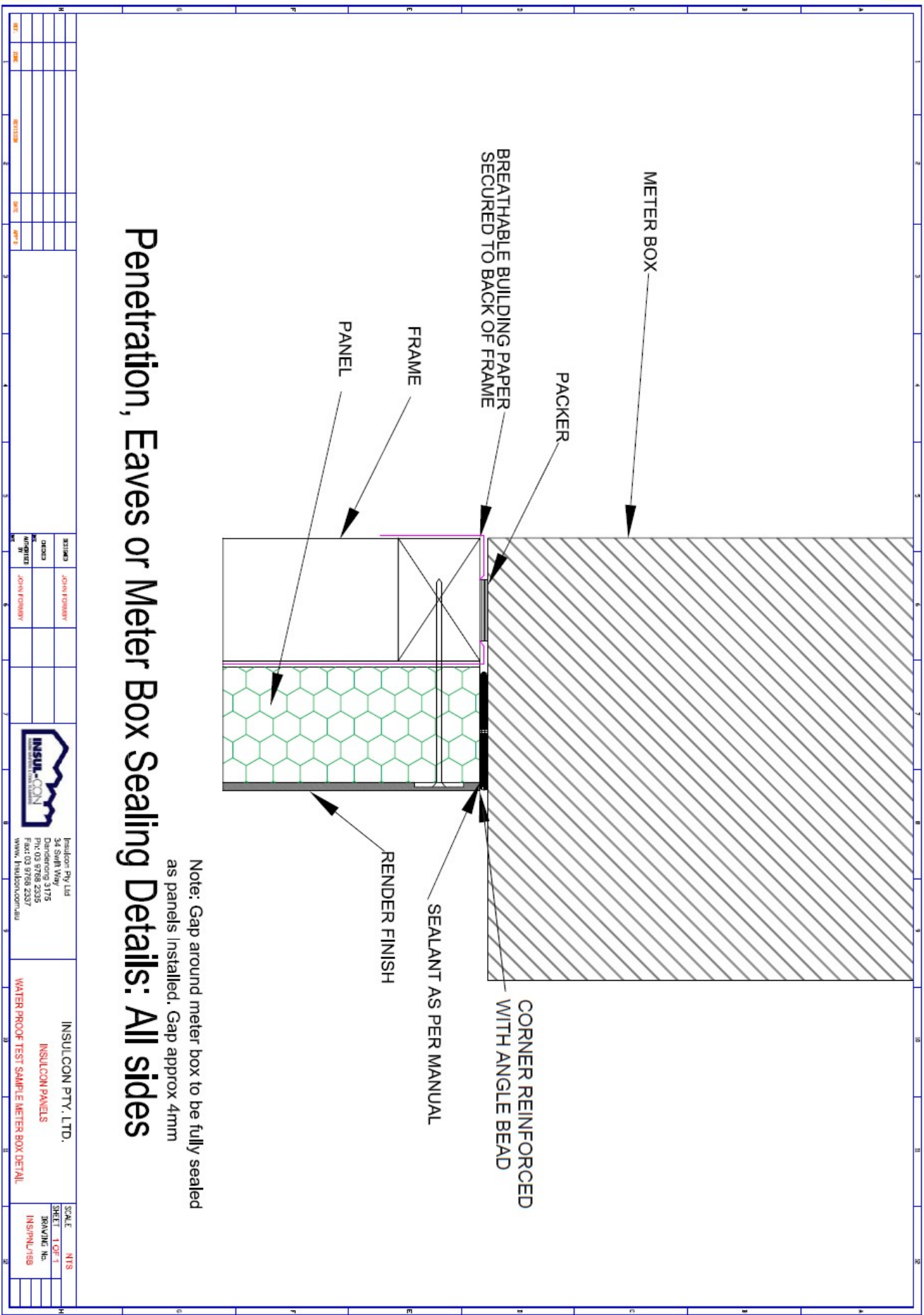
INSULCON PTY. LTD.
INSULCON PANELS
FIXING DETAILS

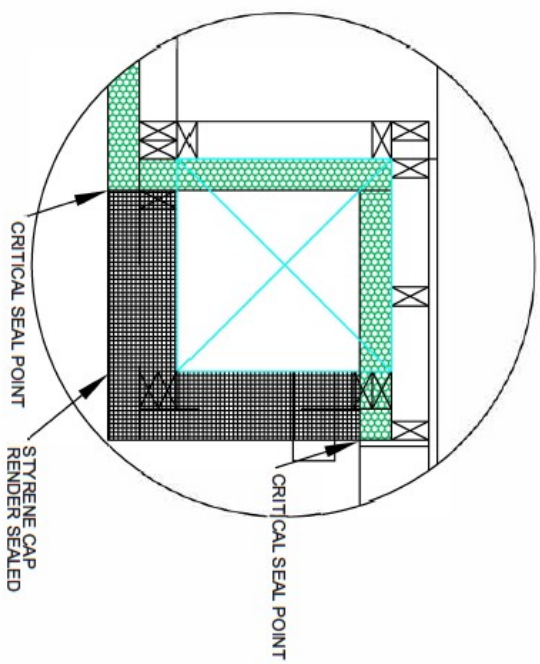
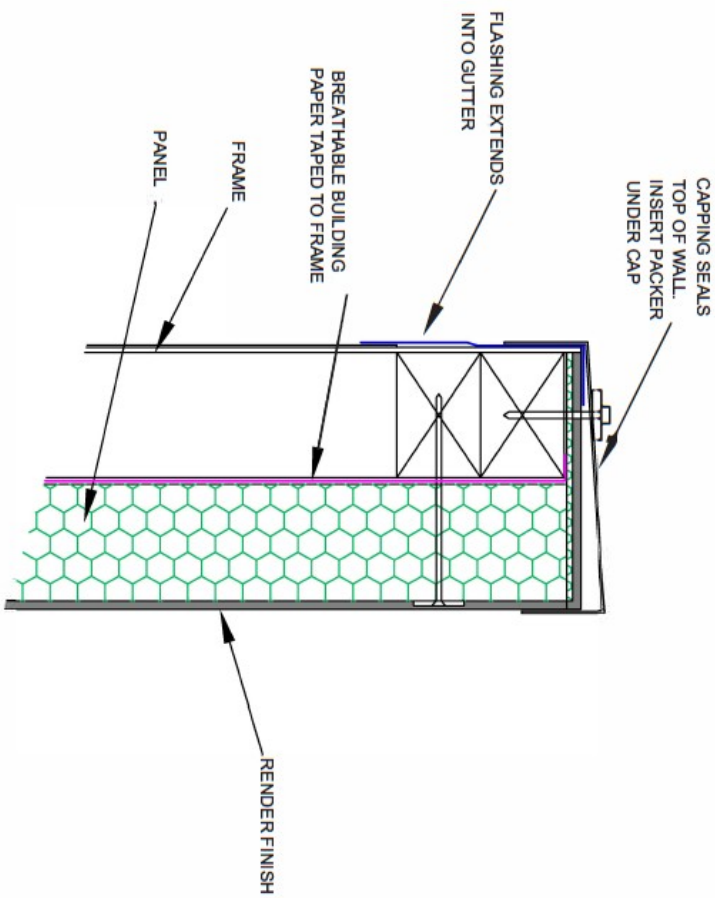
SCALE: NTS
SHEET: 1 OF 1
DRAWING NO: INSPNL14



1. Gap around window to be fully sealed as panels installed. Gap approx 4mm

31 INSUL-CON





Parapet Wall Details

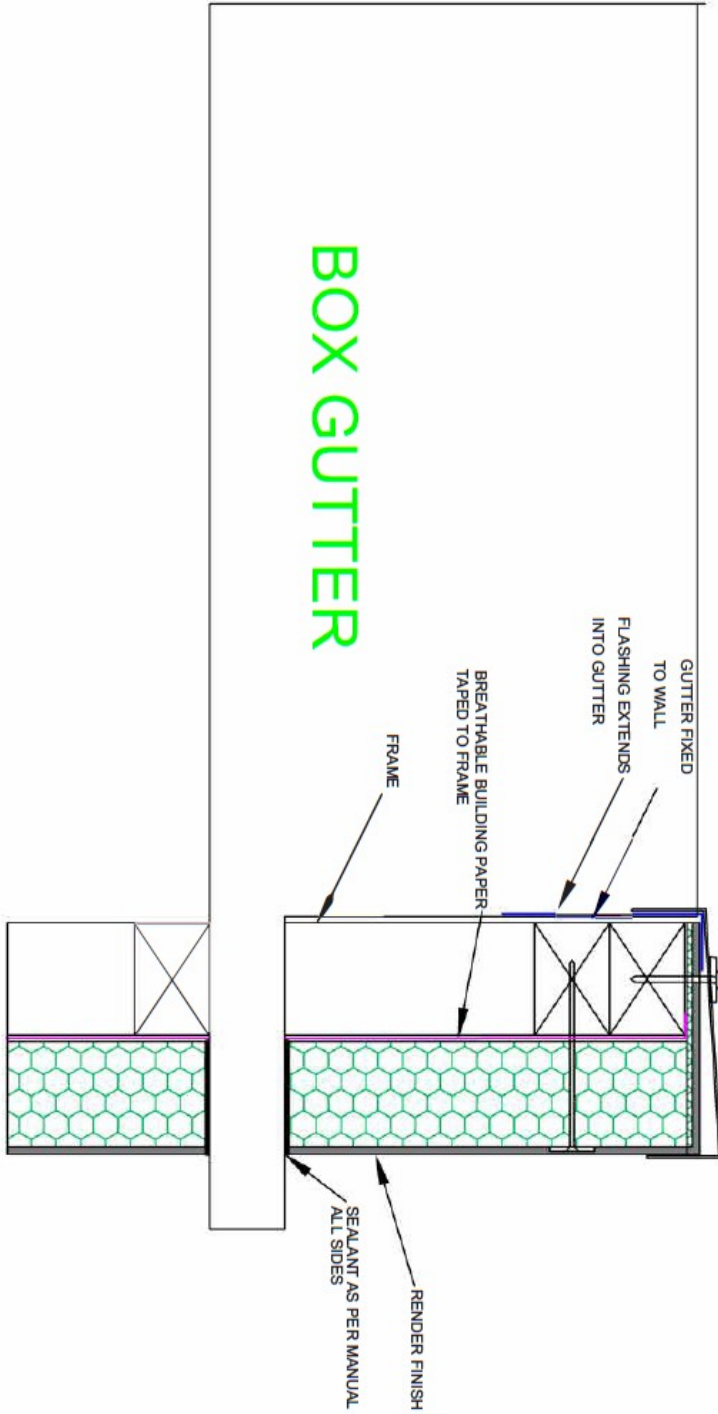
NOTE:

1. Breathable building paper & wall wrap tape must be installed in accordance with AS4200.2
2. Fully Sealed detail used
3. Mechanical capping to be fitted over the top of parapet and sealed

[illegible]

BOX GUTTER

Drain wall penetration details

[illegible]



INSUL-CON MATERIAL WARRANTY

10 year* material warranty is available whereby the applicator adheres to the full Installation Manual which includes but not limited to: Full Acrylic Render system with texture coating & 2 coats of membrane.

7 year* material warranty is available whereby the applicator adheres to the full Installation Manual which includes but not limited to: Full Acrylic Render system with Texture Coating.

Terms and Conditions Apply. See instore for further information.

Insulcon Pty Ltd warrants that its products are free from defects and its products / systems will perform to specified levels as per product data and published manuals.

The following is strictly adhered to for Insulcon material warranty:

1. Warranty from date of purchase for replacement of defective product only.
2. Insulcon Material warranty request form was submitted 1 week prior to commencement of project.
3. Applicator has a professional background and has full understanding of application process.
4. The Insulcon Panel System's manual has been fully adhered to
5. No unapproved additions or modifications to the product or system are made.

Insulcon Pty Ltd shall not be responsible for the following:

6. Damage caused by accident, misuse or abuse of the product.
7. Normal wear and tear including colour fade due to weathering.
8. Damage caused by movement, fire or water.
9. Failure caused by faulty application including by weather prior to curing.

Limitation of Liability:

10. Except as explicitly stated above, Insulcon Pty Ltd is not liable for any direct, indirect or consequential loss any user suffers, incurs or is liable for in connection with the supply of Insulcon Pty Ltd products and systems including without limitation 3rd party claims. Insulcon Pty. Ltd. liability is strictly limited to the maximum value of the purchase contract between Insulcon Pty. Ltd. and the applicator.
11. If, in the sole opinion of the company, any products are found to be defective during the warranty period, then Insulcon Pty Ltd will replace or repair the products at its option.

Technical Support:

For all Insulcon products technical assistance call:
(03) 9768 2335 or email sales@insulcon.com.au

