

Facade systems

Installation guide

ExoTec® facade panel
and fixing system



James Hardie
A smarter way to build

AUSTRALIA
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WE VALUE YOUR FEEDBACK

To continuously improve the development of our products and systems, we value your input. Please send any suggestions, including your name, contact details, and relevant sketches to:

Ask James Hardie™

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1 INTRODUCTION

The James Hardie ExoTec® facade panel provides a durable, expressed joint panel appearance for building facades and fascias and together with the ExoTec® fixing system, offers versatility to architects and builders. A variety of design styles can be created including curved walls, panels installed upright vertically, horizontally or in a brick pattern.

A wide range of decorative finishes can be used including site-applied acrylic textures and available factory-applied polyurethane plain colours and metallic finishes.

This document is a guide only. It is intended for use by builders, cladding installers and other contractors who may be involved with the installation of the ExoTec facade panel and fixing system.

This document must be read in conjunction with the project specific drawings and specifications as well as the current James Hardie ExoTec facade panel and fixing system Technical Specification.

Both the 9mm and 12mm thick ExoTec facade panels may be used in wall facades, fascias and soffits.

If you are an installer...

Ensure that you follow the design, moisture management and associated details and material selection provided by the designer.

If you are a specifier...

or other responsible party for a project, ensure the information in these specifications is appropriate for the application you are planning and that you undertake specific design and detailing for areas which fall outside the scope of these specifications.

Make sure your information is up to date

When specifying or installing James Hardie products, ensure you have the current manual. If you're not sure you do, or you need more information, visit www.jameshardie.com.au or Ask James Hardie™ on 13 11 03

NOTE

All dimensions shown are in millimetres unless noted otherwise. All Australian Standards referenced in this manual are current edition and must be complied with.

2 INSTALLATION OVERVIEW

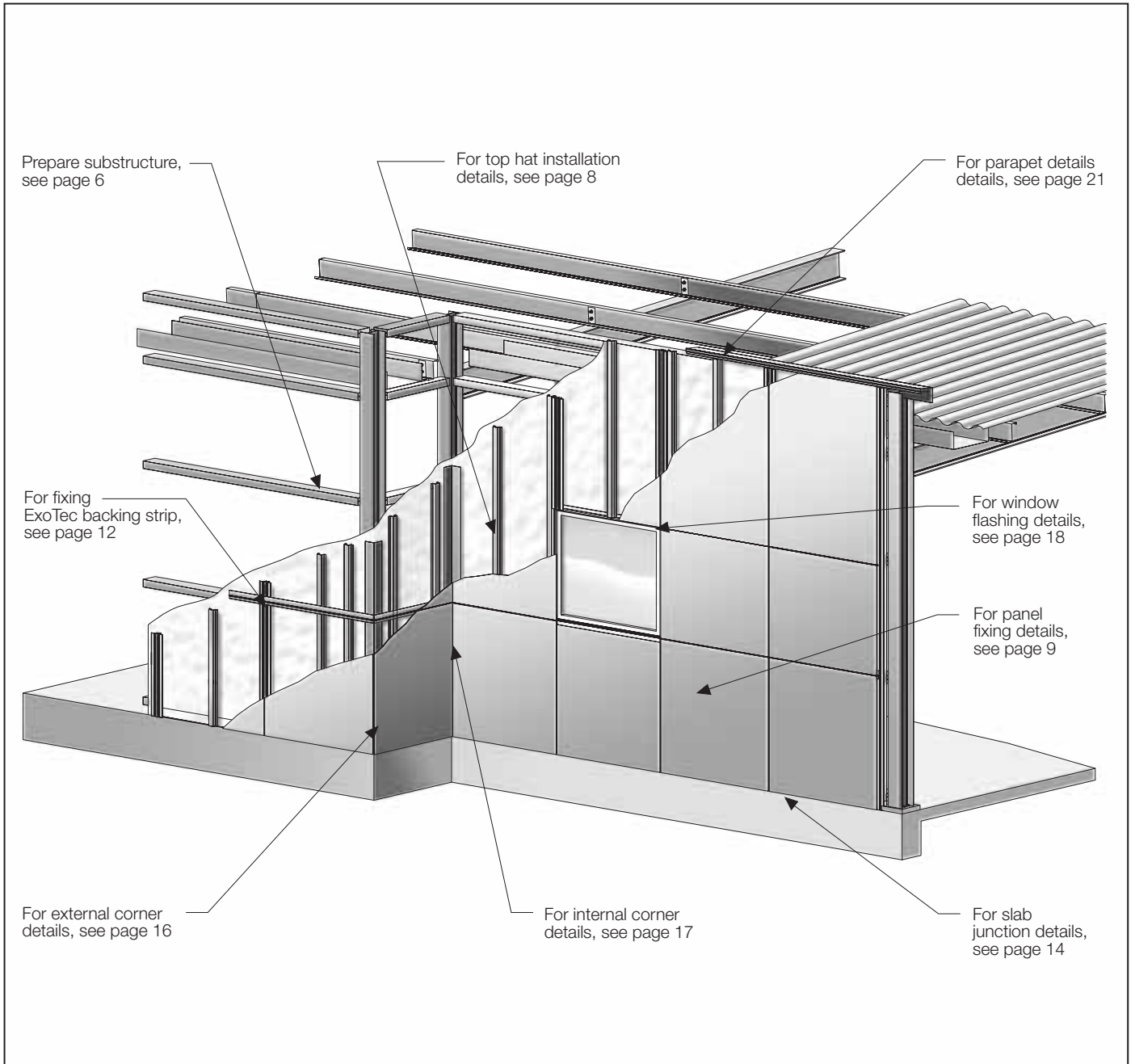
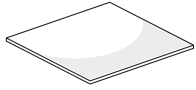


FIGURE 1 INSTALLATION OVERVIEW

3 PRODUCT INFORMATION

TABLE 1

EXOTEC FACADE PANEL INFORMATION				
PRODUCT	DESCRIPTION	QUANTITY / SIZE (NOMINAL)		
	ExoTec facade panel Dense compressed panel. Square edge. Factory sealed on all six sides. Each panel has a distinctive white face, which accepts a wide range of paint finishes. The panel must be installed with the white side facing the exterior of the structure. Nom. density: 1550kg/m ³	Thickness	Width	Lengths
		9mm	900mm 1200mm	1800, 2400, 3000 1800,2100 2400, 2700, 3000
		12mm	1200mm	2400, 3000

NOTE: Not all combinations of thicknesses, width and length are available ex stock, but are available to order. Check with James Hardie for availability of panel sizes.

TABLE 2

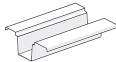
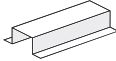
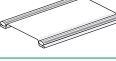



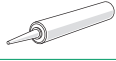

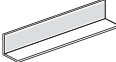

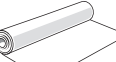




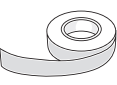

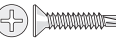

PRODUCT / ACCESSORIES / TOOLS SUPPLIED BY JAMES HARDIE		
ACCESSORIES	DESCRIPTION	QUANTITY/SIZE (APPROX)
	ExoTec top hat Proprietary rolled steel sections 124mm wide x 35mm deep x 1.15mm gauge thickness. Designed to span vertically across the building structure to support the panels along vertical panel joints and isolate movement of the panels from those of the structure.	Pack of 45 6000mm lengths 7200mm lengths
	Intermediate JH top hat Rolled steel sections 50mm wide x 35mm high x 1.15mm gauge thickness, designed to span vertically across the building support structures and to be used as intermediate support to the panels.	Pack of 50 6000mm lengths 7200mm lengths
	ExoTec gasket snap strip Black sealing neoprene gaskets. Specially designed to clip into the ExoTec top hat at vertical sheet joints to cover fixings to the structure and to provide an initial weather seal and drainage.	Pack of 10 3620mm lengths
	ExoTec backing strips 0.55mm BMT black high-tensile roll-formed steel with pre-formed stop for creating horizontal expressed panel joints.	Pack of 10 1190mm / 2390mm / 2990mm lengths
	ExoTec facade washer Opaque nylon 6 washer fits beneath the appropriate exposed head fasteners. ExoTec facade washers are recommended to be inserted between the panel and the exposed head fastener.	Pack of 1000
	HardiStop® base coat Water resistant jointing system. used to flush finish over epoxy when countersink fasteners.	15Kg each
	James Hardie joint sealant Paintable polyurethane sealant. Refer to sealant filled joints section in this manual of suitability when filling joints.	Pack of 20 300mL cartridge
TOOLS		
	HardiBlade® saw blade Diamond tip 185mm diameter fibre cement circular saw blade. Spacers not included.	Each

TABLE 3

PRODUCT / ACCESSORIES / TOOLS NOT SUPPLIED BY JAMES HARDIE			
James Hardie recommends the following products for use in conjunction with ExoTec facade system. James Hardie does not supply these products and does not provide a warranty for their use. Please contact component the manufacturer for information on their warranties and further information on their products.			
ACCESSORIES	DESCRIPTION	ACCESSORIES	DESCRIPTION
	Miscellaneous light gauge pressed metal section Sections 1mm minimum to 1.2mm thickness (maximum) corrosion resistant metal. Used in internal and external corner details.		Epoxy flush sealing (2 part) Countersunk head screws are flush sealed using mexapoxy P1 or Hilti CA 125. Where the temperature is below 15° use Hilti CA 273.
	Vapour permeable sarking Must have the following properties in accordance with AS/NZS 4200.1: Vapour barrier - low or medium Water barrier - high		Cordless drill Recommended tool for drilling holes and fastening screws.
	Bond breaker tape Used when filling vertical joints to prevent sealant from bonding to top hat. Refer to the ExoTec facade panel and fixing system Installation Manual for suitable sealant.		Base coat applicator A recommended method of applying HardiStop base coat over epoxy filled countersunk screw heads. This method minimises waste. Base coat is easily sanded by comparison to epoxy fillers.
	6mm masonry drill Provides a 6.2mm to 6.3mm diameter hole. Used to pre-drill clearance holes for fasteners.		Flexible tape A flexible self-adhesive tape used in preparation of a window. Refer to the window installation section in this Installation Manual for more information. e.g. Tyvek® Flexiwrap™ tape
	Countersunk head drill 6mm Countersunk bit.		
FASTENERS			
	Countersunk fasteners No. 10x30 countersunk head self drilling screws - Class 3 Minimum coating. Fasteners must have the appropriate level of durability required for the intended project. Fasteners must be fully compatible with all other material that it is in contact with to ensure the durability and integrity of assembly. Contact fastener manufacturers for more information.		Exposed head fasteners No. 10x25mm pan, wafer of hex head self drilling screws Class 3 minimum coating. Fasteners must have the appropriate level of durability required for the intended project. Fasteners must be fully compatible with all other material that it is in contact with to ensure the durability and integrity of assembly. Contact fastener manufacturer for more information.

4 SAFE WORKING PRACTICES

WARNING - DO NOT BREATHE DUST AND CUT ONLY IN WELL VENTILATED AREA

James Hardie products contain sand, a source of respirable crystalline silica which is considered by some international authorities to be a cause of cancer from some occupational sources. Breathing excessive amounts of respirable silica dust can also cause a disabling and potentially fatal lung disease called silicosis, and has been linked with other diseases. Some studies suggest smoking may increase these risks. During installation or handling: (1) work in outdoor areas with ample ventilation; (2) minimise dust when cutting by using either 'score and snap' knife, fibre cement shears or, where not feasible, use a HardiBlade® saw blade and dust-reducing circular saw attached to a HEPA vacuum; (3) warn others in the immediate area to avoid breathing dust; (4) wear a properly-fitted, approved dust mask or respirator (e.g. P1 or P2) in accordance with applicable government regulations and manufacturer instructions to further limit respirable silica exposures. During clean-up, use HEPA vacuums or wet cleanup methods - never dry sweep. For further information, refer to our installation instructions and Material Safety Data Sheets available at www.jameshardie.com.au. FAILURE TO ADHERE TO OUR WARNINGS, MATERIAL SAFETY DATA SHEETS, AND INSTALLATION INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY OR DEATH.

JAMES HARDIE RECOMMENDED SAFE WORKING PRACTICES

CUTTING OUTDOORS

1. Position cutting station so wind will blow dust away from the user or others in working area.
2. Use a dust reducing circular saw equipped with HardiBlade® saw blade and HEPA vacuum extraction.

SANDING/DRILLING/OTHER MACHINING

When sanding, drilling or machining you should always wear a P1 or P2 dust mask and warn others in the immediate area.

IMPORTANT NOTES

1. NEVER use a power saw indoors.
2. NEVER use a circular saw blade that does not carry the HardiBlade® logo.
3. NEVER dry sweep - Use wet suppression or HEPA vacuum.
4. NEVER use grinders.
5. ALWAYS follow tool manufacturers' safety recommendations.

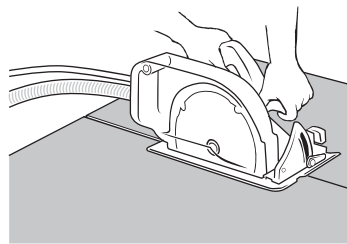
P1 or P2 respirators should be used in conjunction with above cutting practices to further reduce dust exposures. Additional exposure information is available at www.jameshardie.com.au to help you determine the most appropriate cutting method for your job requirements. If concern still exists about exposure levels or you do not comply with the above practices, you should always consult a qualified industrial hygienist or contact James Hardie for further information.

WORKING INSTRUCTIONS

Refer to recommended safe working practices before starting any cutting or machining of product.

HardiBlade® Saw Blade

The HardiBlade® saw blade used with a dust-reducing saw is ideal for fast, clean cutting of James Hardie fibre cement products. A dust-reducing saw uses a dust deflector or a dust collector which can be connected to a vacuum system. When sawing, clamp a straight-edge to the sheet as a guide and run the saw base plate along the straight edge when making the cut.



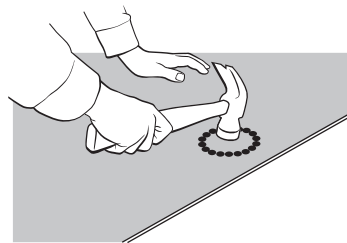
HOLE-FORMING

For smooth clean cut circular holes:

- Mark the centre of the hole on the sheet.
- Pre-drill a pilot hole.
- Using the pilot hole as a guide, cut the hole to the appropriate diameter with a hole saw fitted to a heavy duty electric drill.

For irregular holes:

- Small rectangular or circular holes can be cut by drilling a series of small holes around the perimeter of the hole then tapping out the waste piece from the sheet face.
- Tap carefully to avoid damage to sheets, ensuring the sheet edges are properly supported.



STORAGE AND HANDLING

To avoid damage, all James Hardie building products should be stored with edges and corners of the sheets protected from chipping.

James Hardie building products must be installed in a dry state and protected from rain during transport and storage. The product must be laid flat under cover on a smooth level surface clear of the ground to avoid exposure to water, moisture, etc.

QUALITY

James Hardie conducts stringent quality checks to ensure any product manufactured falls within our quality spectrum. It is the responsibility of the builder to ensure the product meets aesthetic requirements before installation. James Hardie will not be responsible for rectifying obvious aesthetic surface variations following installation.

5 PREPARATION

Prior to installation of the ExoTec Facade Panel and Fixing System ensure that the required preparation steps have been followed, see Figure 2

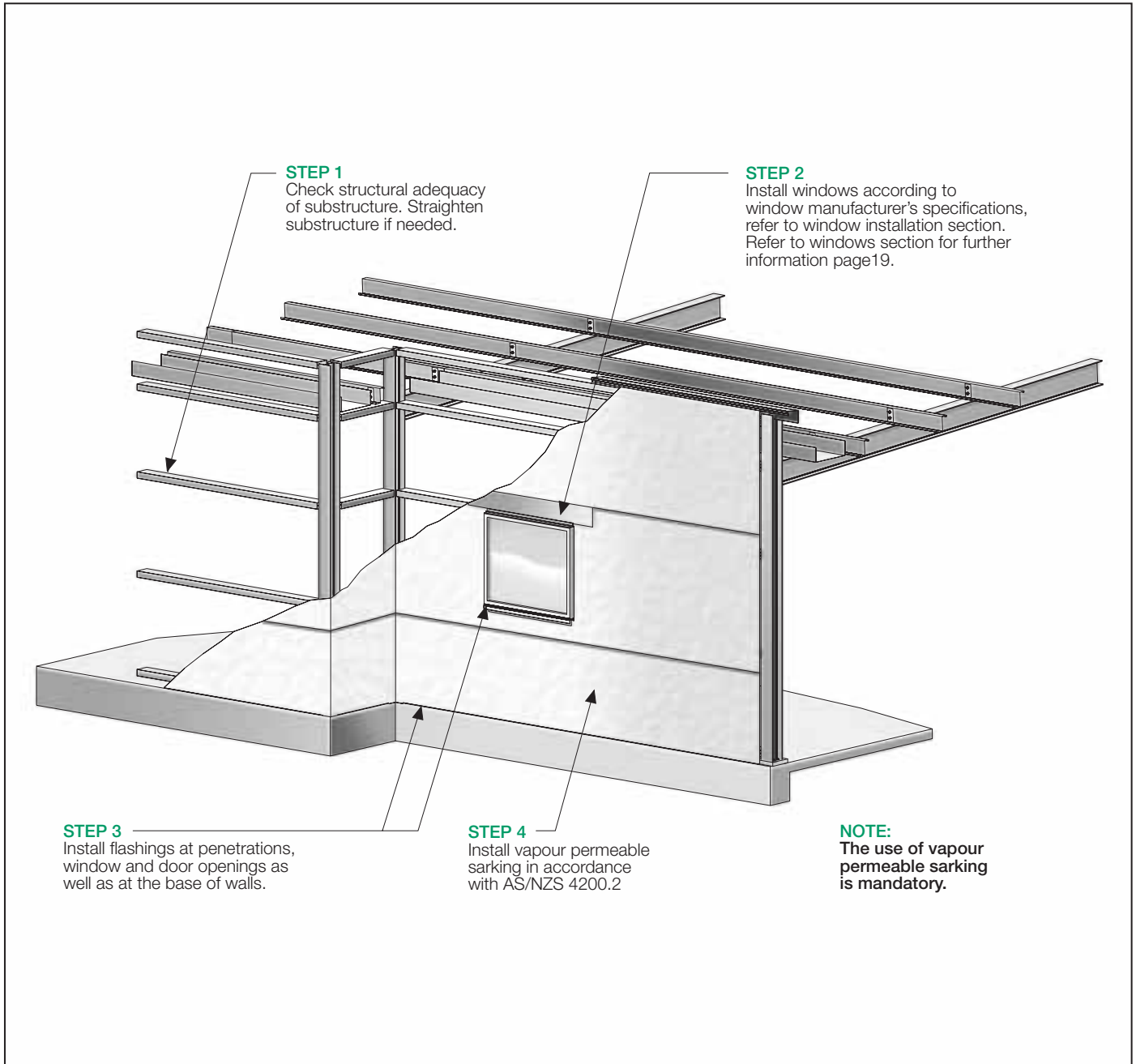


FIGURE 2 PREPARATION OF SUB-STRUCTURE

NOTES

1. For high walls it may be necessary to provide flashing to drain the facade at one or more intermediate levels. The installation of any barrier must not restrict moisture from reaching flashings and draining out.
2. The engineer must limit the deflection of the supporting structure to $\text{span}/250$ for serviceability Wind Load. See Clause 2.6 of the ExoTec facade panel and fixing system Technical Specification.

6 PANEL AND TOP HAT LAYOUT

The ExoTec facade panel can be installed upright horizontally or vertically. The panel layout will determine the location of the ExoTec and intermediate JH top hats, see Figures 3 to 6. The vertical expressed joints may be aligned or offset in a brick pattern layout.

KEY

TH: ExoTec top hat
INT: Intermediate JH top hat

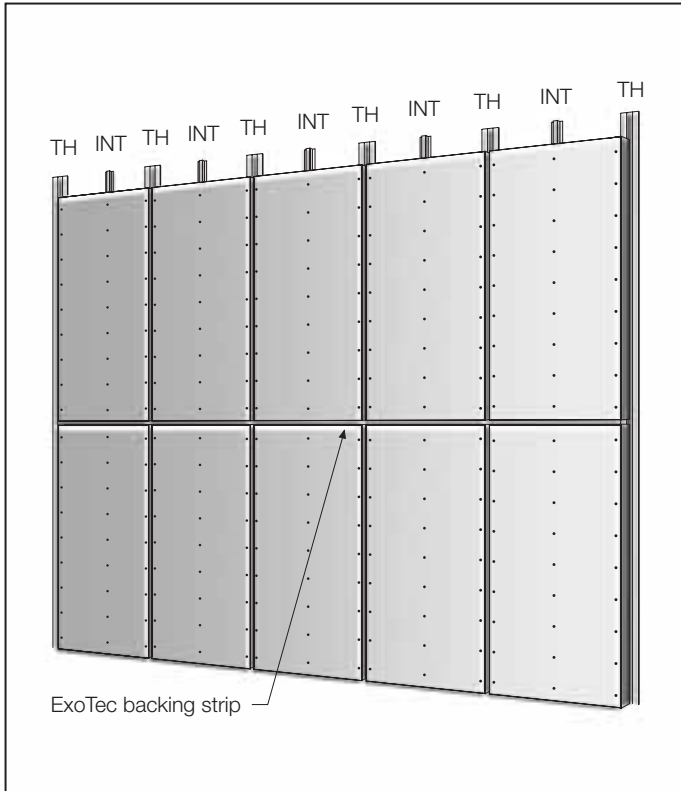


FIGURE 3 VERTICAL LAYOUT ALIGNED GRID PATTERN

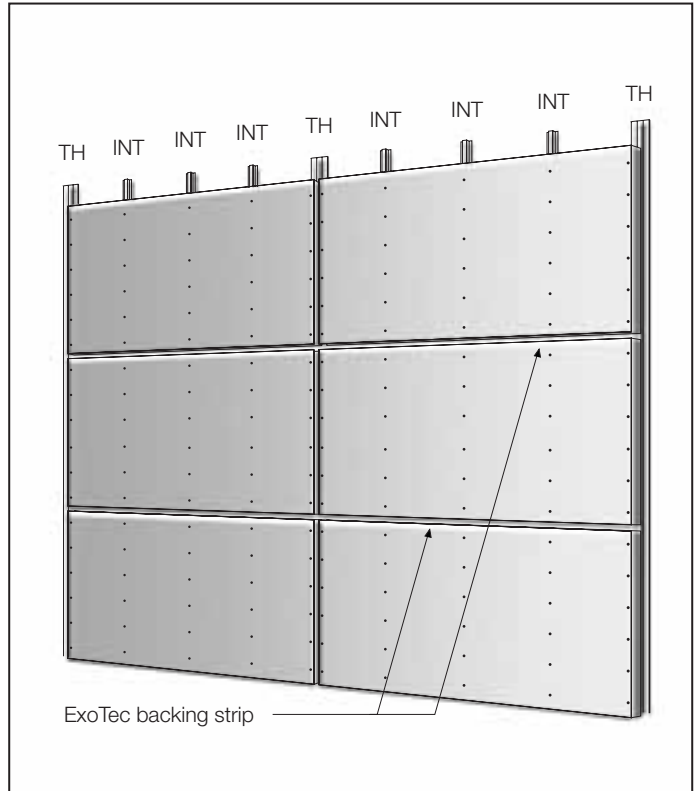


FIGURE 5 HORIZONTAL LAYOUT ALIGNED GRID PATTERN

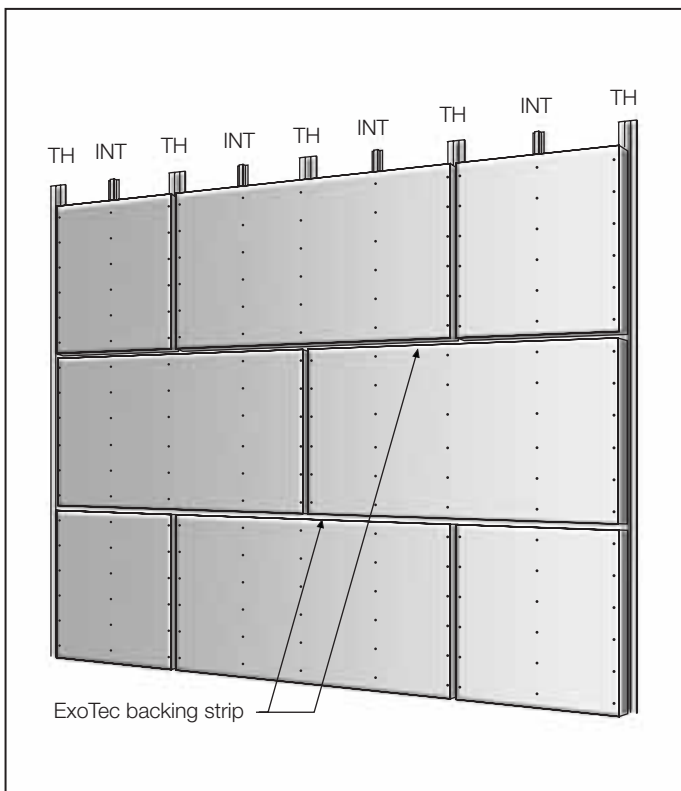


FIGURE 4 HORIZONTAL LAYOUT BRICK GRID PATTERN

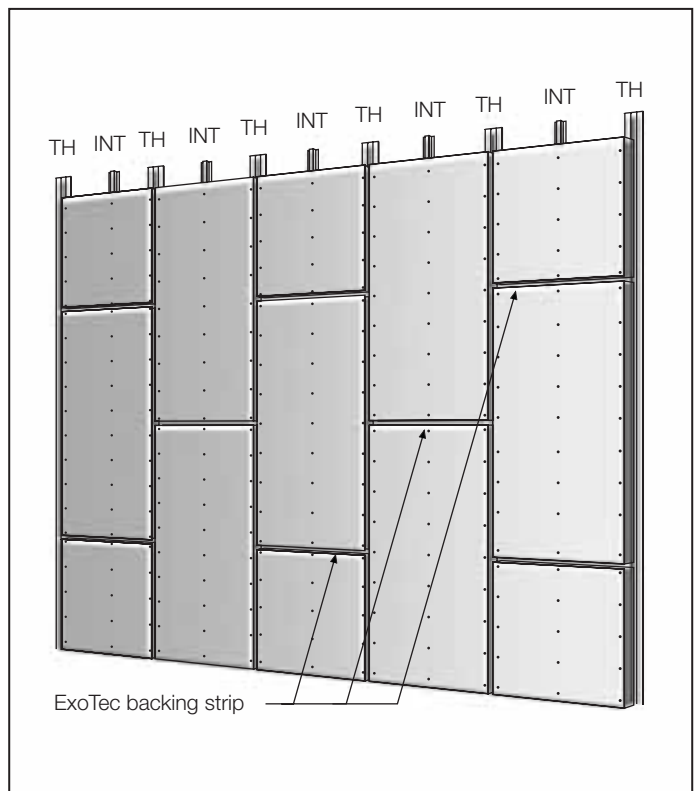


FIGURE 6 VERTICAL LAYOUT BRICK GRID PATTERN

7 INSTALLATION

TOP HAT INSTALLATION

ExoTec facade panels must be fixed to:

- 1) ExoTec top hat for vertical sheet joints.
- 2) Intermediate JH top hat for supporting the panels between vertical sheet joints.

The top hats must be installed vertically over steel, masonry or timber structures, see Figure 7. The top hat fixing to the structure must be as per the engineer's detail.

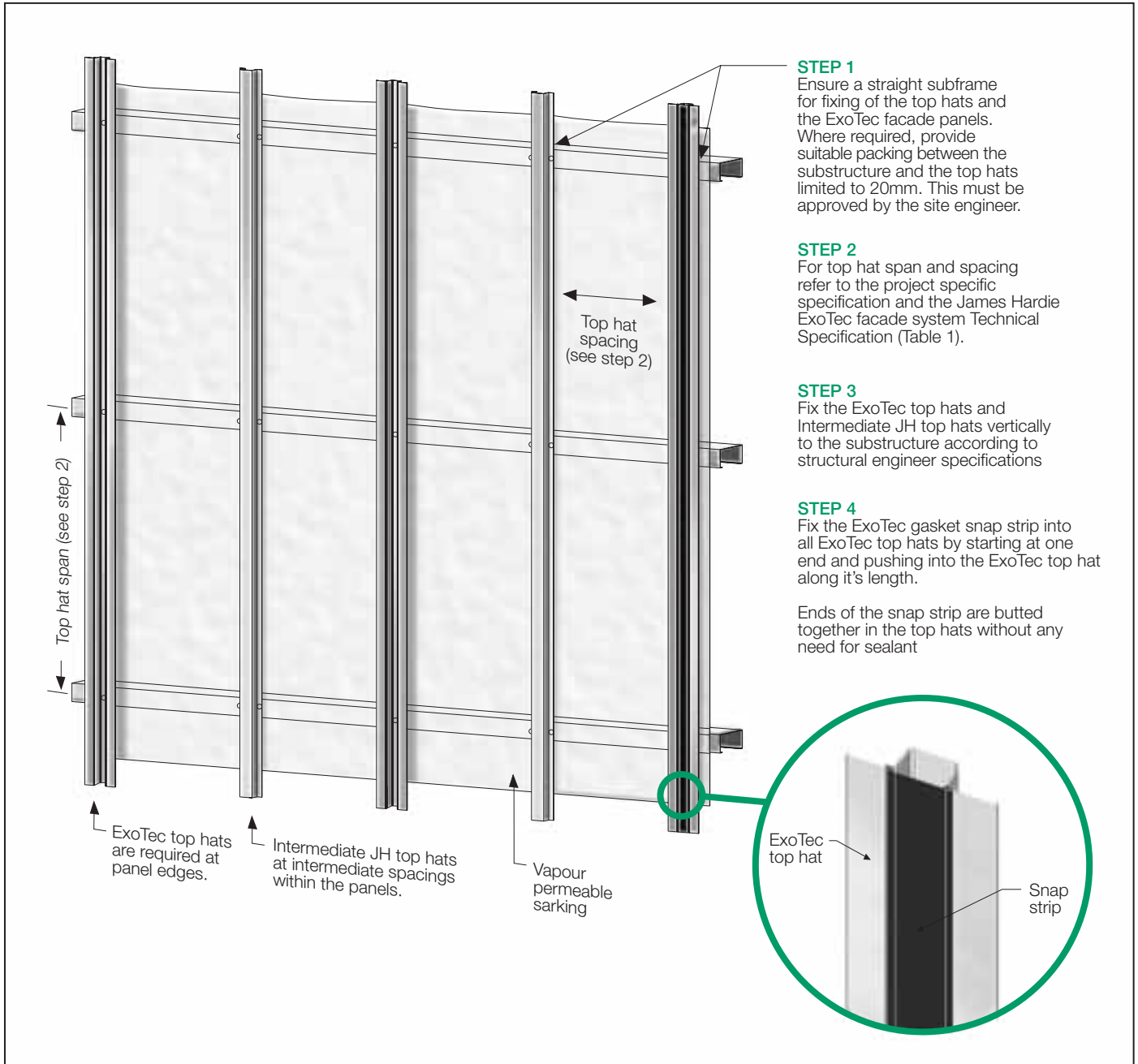


FIGURE 7 TOP HAT INSTALLATION

PANEL INSTALLATION

Panels are installed with a 10mm nominal expressed joint between adjacent panels, vertically and horizontally. Vertical joints up to 20mm width can be formed, with additional care required at installation to ensure the panel edges cover the ExoTec gasket snap strip on both sides of the joint. A minimum vertical expressed joint of 6mm is allowed with care.

NOTE

When applying sealant to the edge of the ExoTec facade panel, refer to page 13 for recommended sealants.

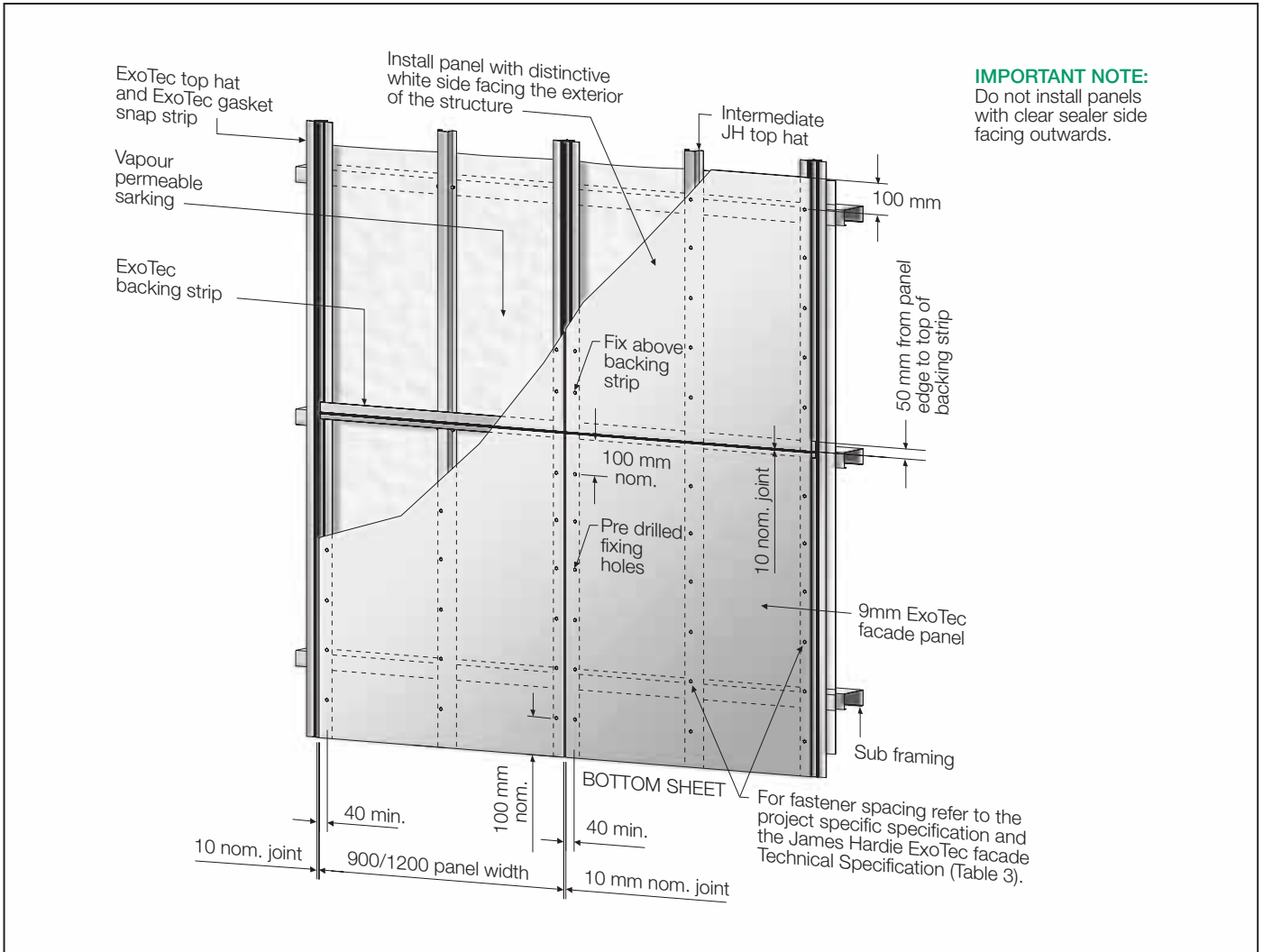


FIGURE 8 TYPICAL PANEL AND FRAMING LAYOUT

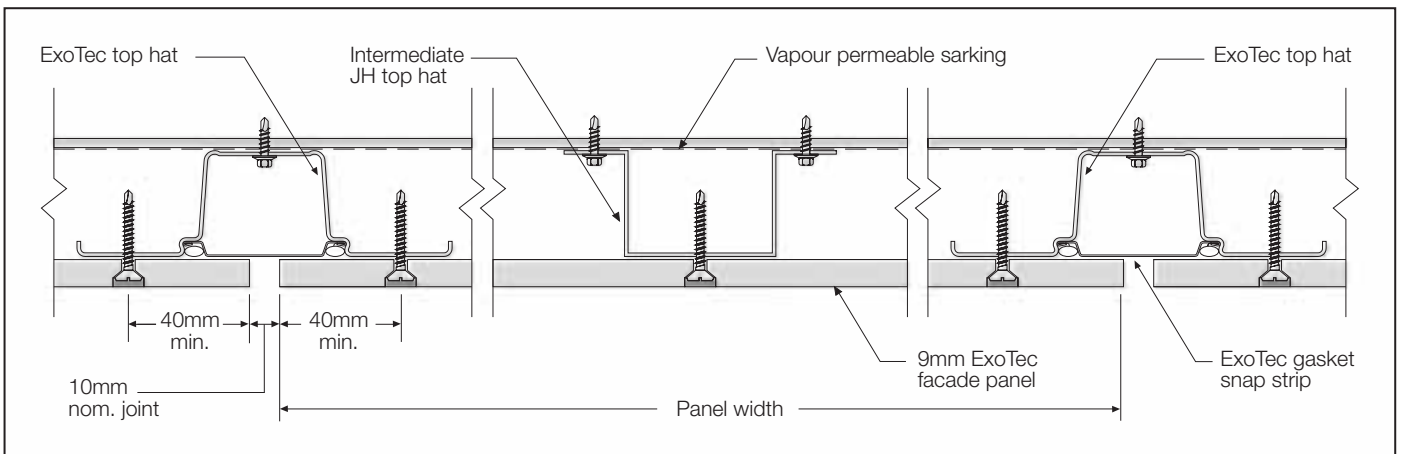


FIGURE 9 TOP HAT AND PANEL FIXING DETAIL

FASTENING METHODS

Panels may be fixed to ExoTec top hats and intermediate JH top hats by either:

1. **Countersunk fasteners:** flush finished over screw heads with a suitable epoxy, and then with HardiStop base coat. Generally used with site-applied acrylic coatings.
2. **Exposed head screws:** using pan, wafer or hex head screws. Used where pre-finished panels are installed. Exposed head fasteners may be colour coated to match panel finish.

Fasteners must have the appropriate level of durability required for the intended project. This is of particular importance in coastal areas, subject to salt spray and other corrosive environments.

Fasteners must be fully compatible with all other materials that the fasteners will come in contact with, to ensure the durability and integrity of assembly.

See Tables 3 and 4, for maximum fastener spacings to top hats for design wind pressure in the current ExoTec facade panel and fixing system Technical Specification.

Contact fastener manufacturers for more information.

Countersunk Fasteners

1. Mark fastener locations as specified, see Figure 8.
2. Drill clearance holes into ExoTec facade panel, for No.10 gauge screws using a 6mm countersunk masonry drill, which provides a 6.2 to 6.3mm diameter hole, see Figure 10. countersink hole to a depth of 2.5mm to 3mm. This is measured from the top of the screw to the top of the sheet, see Figure 15.

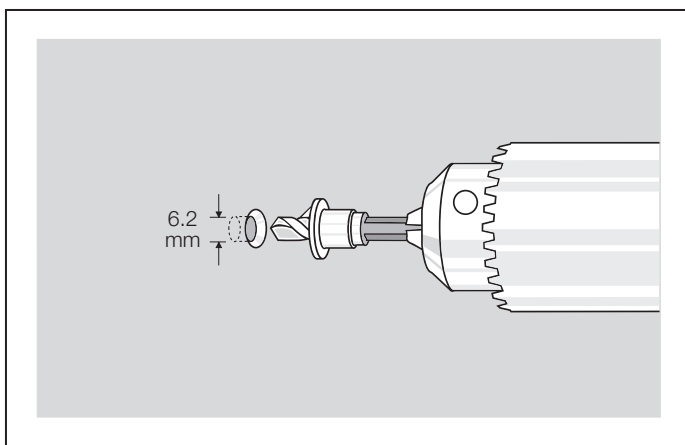


FIGURE 10 DRILL COUNTERSINK HOLE

NOTE

Do not use hammer action.

3. Fasten panel into top hat with corrosion resistant (Class 3 min.) No. 10 gauge x 30mm countersunk head self drilling fasteners. For areas within a corrosive environment refer to fastener manufacturer for suitability and compatibility of fasteners.
4. Clean dust out of holes to ensure adhesion of epoxy sealer.
5. Mix only sufficient epoxy for immediate use. James Hardie recommends the use of megapoxy P1 or Hilti CA 125. Where the temperature is below 15°C, use Hilti CA 273.
6. Cover countersink fastener with epoxy leveled flush with sheet. To accommodate for second coat do not overfill hole. Allow epoxy to cure.

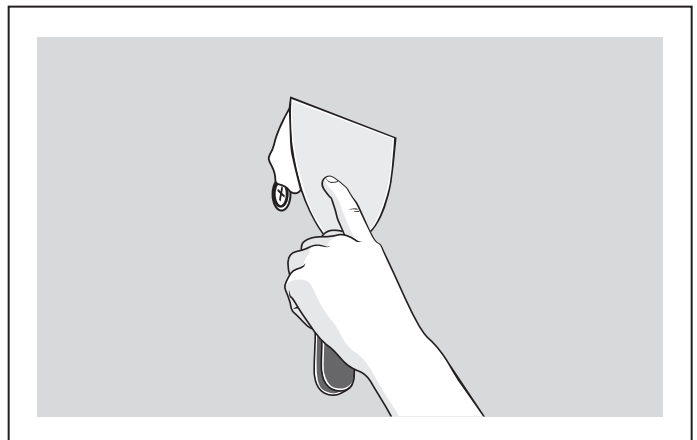


FIGURE 11 COVER COUNTERSINK FASTENER WITH EPOXY

7. Apply HardiStop base coat over epoxy using the base coat applicator. See Figures 12, 13, and 14.

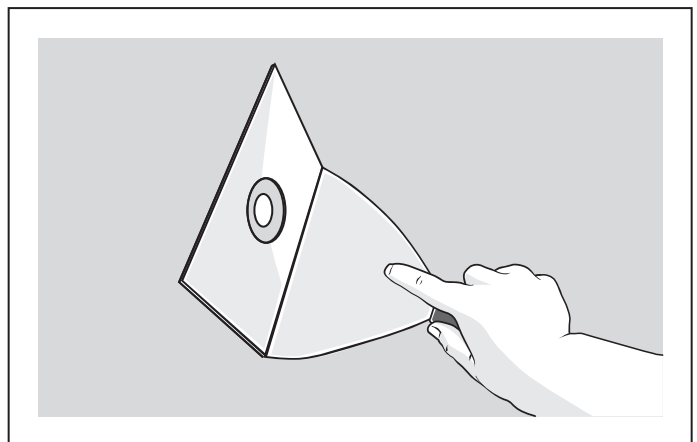


FIGURE 12 FIX BASE COAT APPLICATOR OVER EPOXY FILLED SCREW HEAD

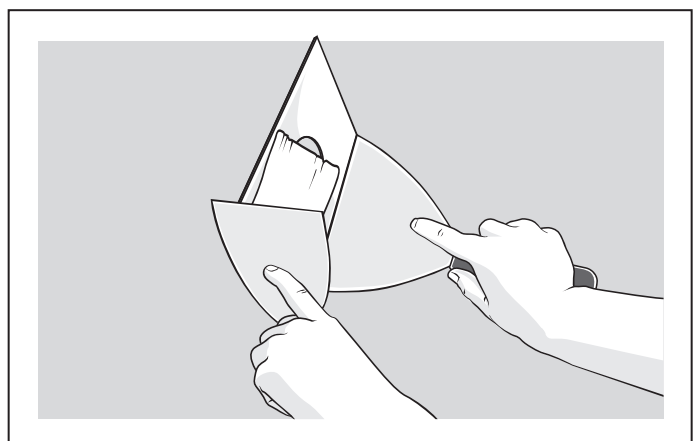


FIGURE 13 APPLY HARDISTOP BASE COAT OVER EPOXY FILLED SCREW HEAD

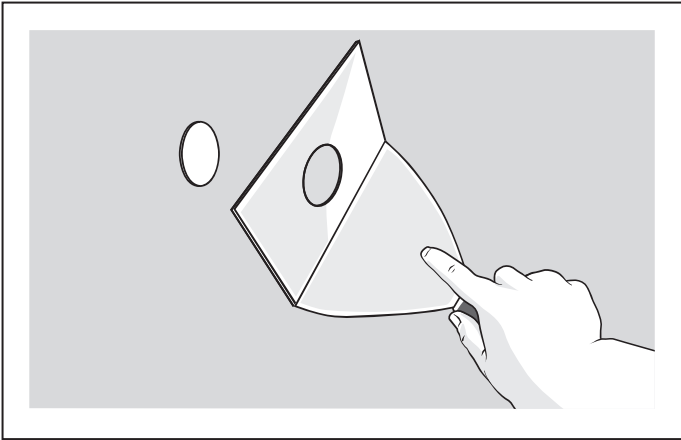


FIGURE 14 SCREW HEAD COVERED BY EPOXY AND JH BASE COAT

8. Sand HardiStop base coat smooth when cured with 100-120 grit sandpaper.

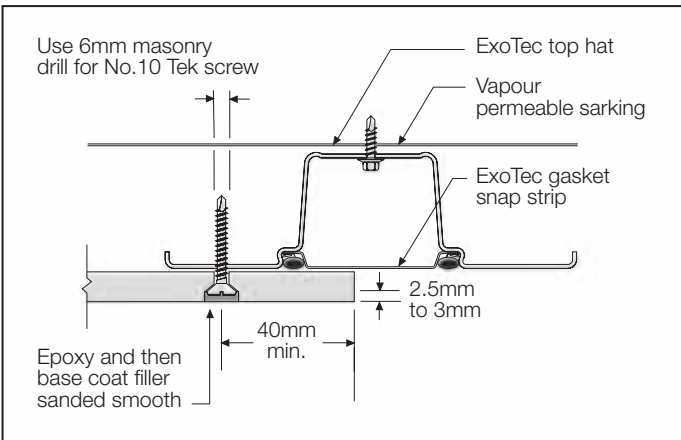


FIGURE 15 COUNTERSUNK FASTENER DETAIL

NOTE

Do not use hammer action.

Exposed Head Fasteners

1. Mark fastener locations as specified (see Figure 8).
2. Drill clearance holes for No.10 gauge screws using a 6mm masonry drill, which provides a 6.2 to 6.3mm diameter hole.
3. Fasten panel using corrosion resistant (minimum class 3) No. 10 gauge x 25mm pan, wafer or hex head self drilling screw into top hat. For areas within a corrosive environment, refer to fastener manufacturer for suitability and compatibility of fasteners and relevant standard.
4. For exposed head fasteners, ExoTec facade washers are recommended to be inserted between the panel and the fastener.

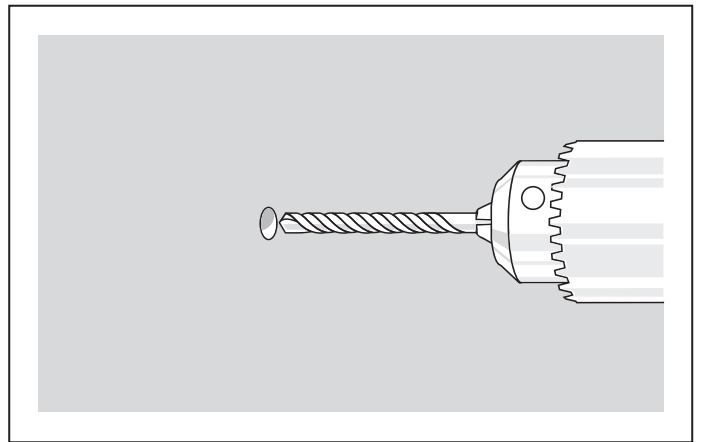


FIGURE 16 DRILL CLEARANCE HOLE

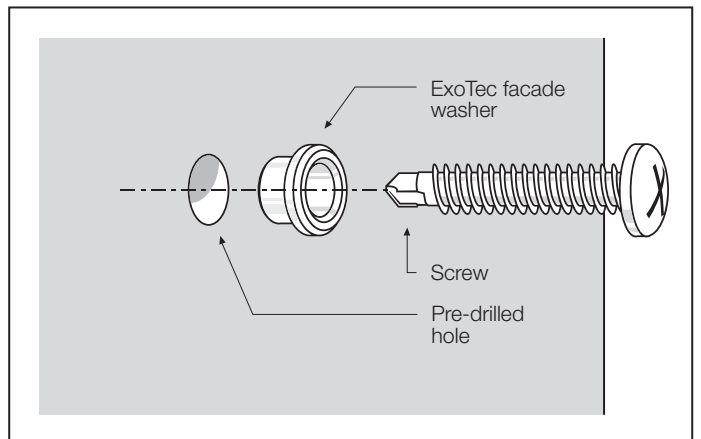


FIGURE 17 WASHER AND SCREW INSTALLATION

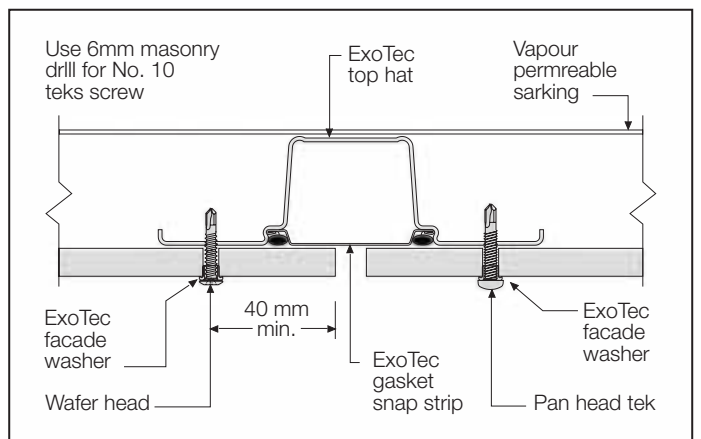


FIGURE 18 EXPOSED HEAD FASTENER DETAIL

BACKING STRIP INSTALLATION

At horizontal panel joints, ExoTec backing strips are adhered along the back top edge of the ExoTec facade panel prior to panel installation.

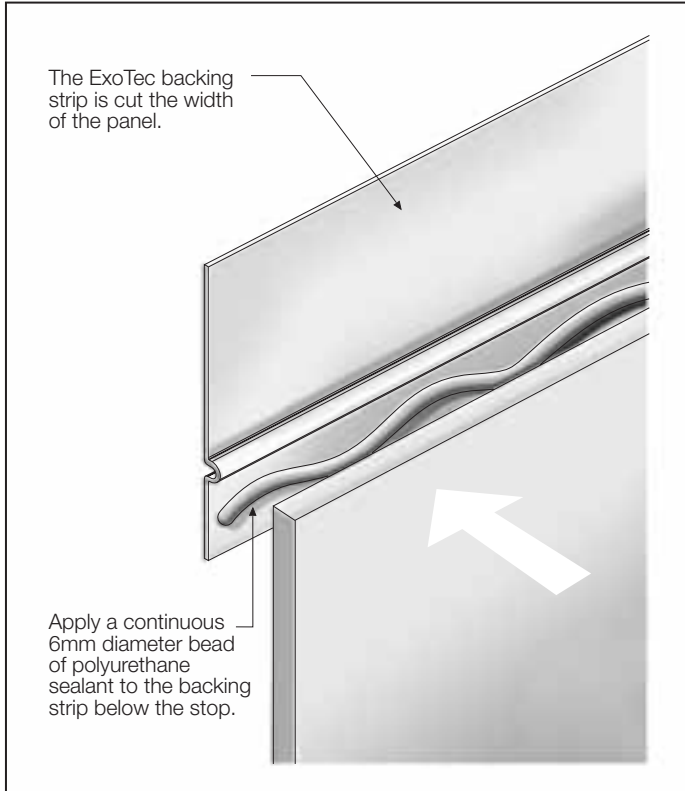


FIGURE 19 APPLYING SEALANT TO EXOTEC BACKING STRIP

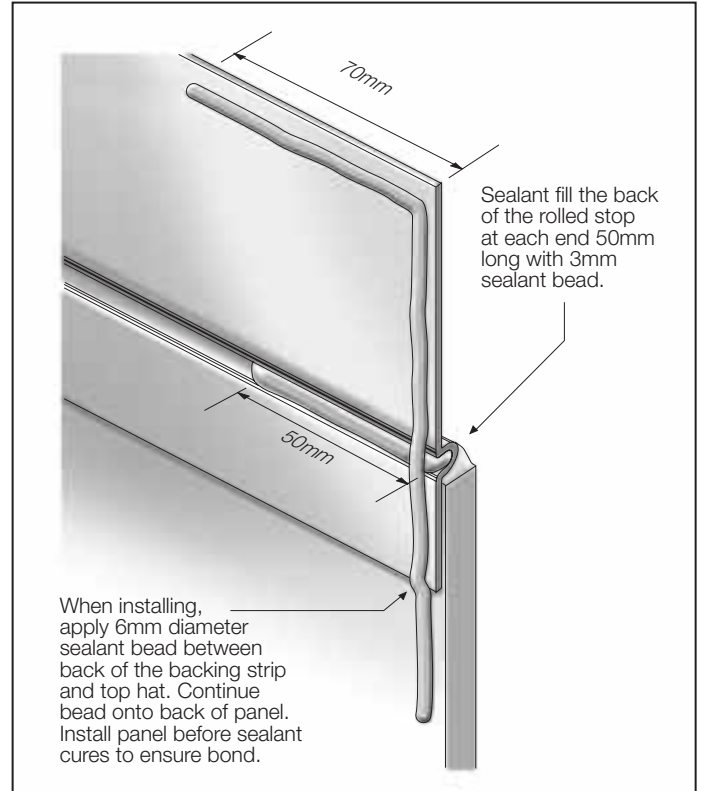


FIGURE 21 SEALING EXOTEC BACKING STRIP END DETAIL



FIGURE 20 APPLYING SEALANT TO HORIZONTAL JOINT

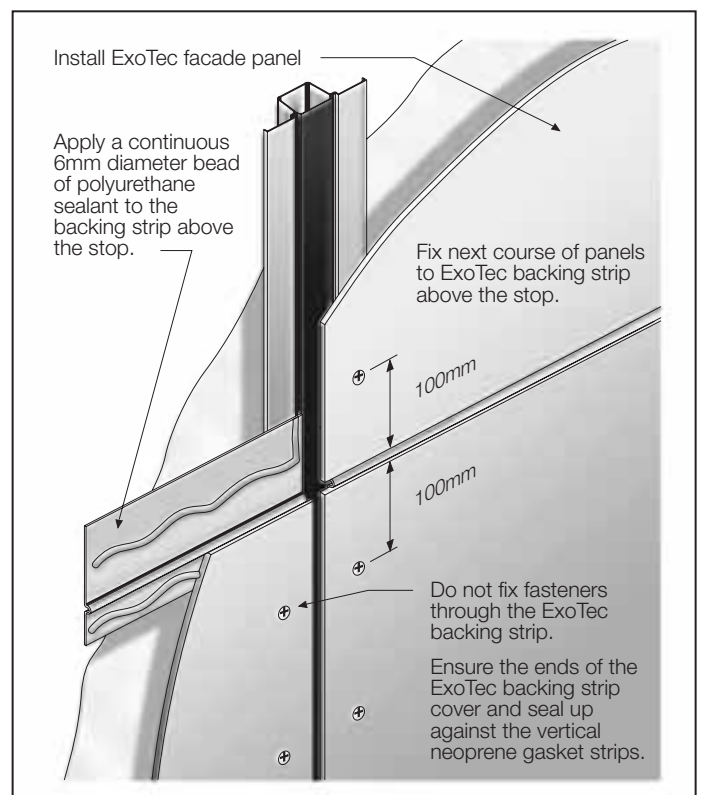


FIGURE 22 INSTALLING NEXT COURSE OF PANELS DETAILS

8 MOVEMENT JOINTS

SEALANT FILLED JOINTS

Acrylic coated facade panels

For joints sealed prior to painting use Fosroc Primer 10 or SilaFlex MS, and for joints filled after painting use Emer-Seal Construction Silicon.

Polyurethane coated facade panels

For pre-finished facade panels that have polyurethane coatings applied to the ExoTec facade panel edges use either :

- Polyurethane sealants or Emer-Seal Construction Silicon supplied by Parchem Construction Products.

In all other areas where the sealant is not in contact with the ExoTec facade panel edge, polyurethane sealant may be used e.g. James Hardie joint sealant.

CURVED FACADES

The ExoTec facade panel and fixing system can be used to follow curved walls as described below:

For radii 10m or greater

Use 9mm thick ExoTec facade panels which can be easily bent to the curve of the frame. ExoTec facade panels are to be fixed in a horizontal orientation only. Refer to Table 4 for maximum top hat spacing.

TABLE 4

MAX. TOP HAT SPACING FOR VARIOUS RADII		
RADII (m)	MAX. TOP HAT SPACING (mm)	
	900mm wide panels	1200mm wide panels
10 to 15	300	400
>15	450	To suit wind loading

NOTES

1. The closer the spacing of top hats, the less likely they will read through as facets in the panels, particularly at a small radii.
2. 9mm thick panels may be able to be curved to a smaller radius, but this is likely to overstress panels.

NOTE

When fixing curved sheets, commence fixing from the centre and work outwards to avoid "drumminess".

Particular care should be taken when curving panels to ensure the supports are on a true curve. If not, apart from poor appearance, there is a risk of locally over-stressing the panels and causing cracking.

Alternate materials and installation methods are available for radii less than specified above including, glass reinforced cement (GRC) installed according to manufacturer's specifications.

For further information on curved facades contact Ask James Hardie™ on 13 11 03.

Movement joints are required to limit or remove stresses from the panels. Movement joints are provided by the nominal 10mm expressed or sealant filled joints at the perimeter of the panels.

Vertical structural joints may be required in the cladding to coincide with structural joints in the structure to accommodate the anticipated movement.

Horizontal structural joints are required at slab level where the framing supporting the top hats moves with the creep deflection in the slab.

For details of abutment to masonry walls, refer page 7 in the ExoTec facade panel and fixing system Technical Specification.

For more information on movement joints, refer page 6 in the ExoTec facade panel and fixing system Technical Specification.

NOTE

The project engineer is responsible for specifying the anticipated movement.

9 JUNCTIONS

BASE SLAB JUNCTION

This junction can be treated in a number of ways, two of which are illustrated in Figures 23 and 25.

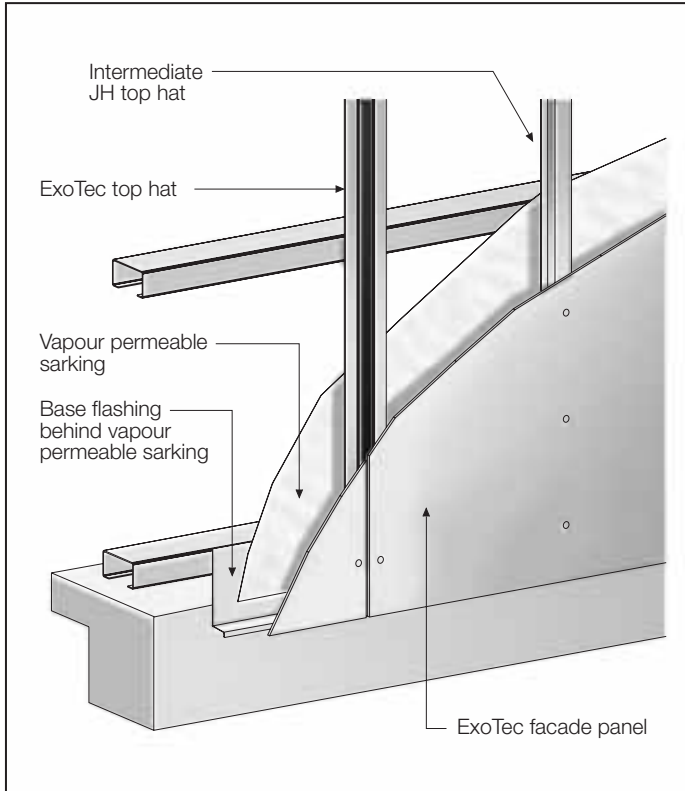


FIGURE 23 WALL BASE TYPICAL CUTAWAY DETAIL 1

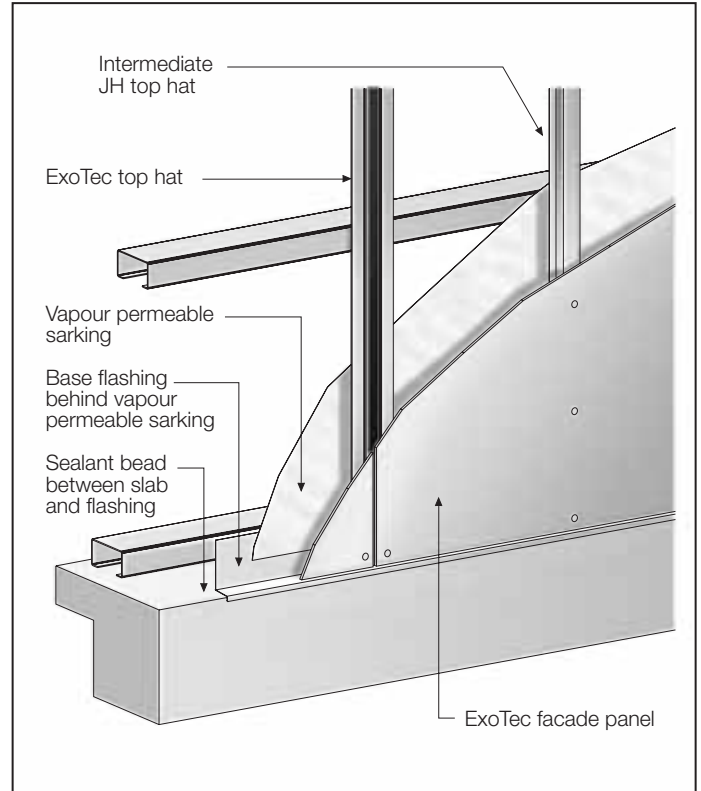


FIGURE 25 WALL BASE CUTAWAY TYPICAL DETAIL 2

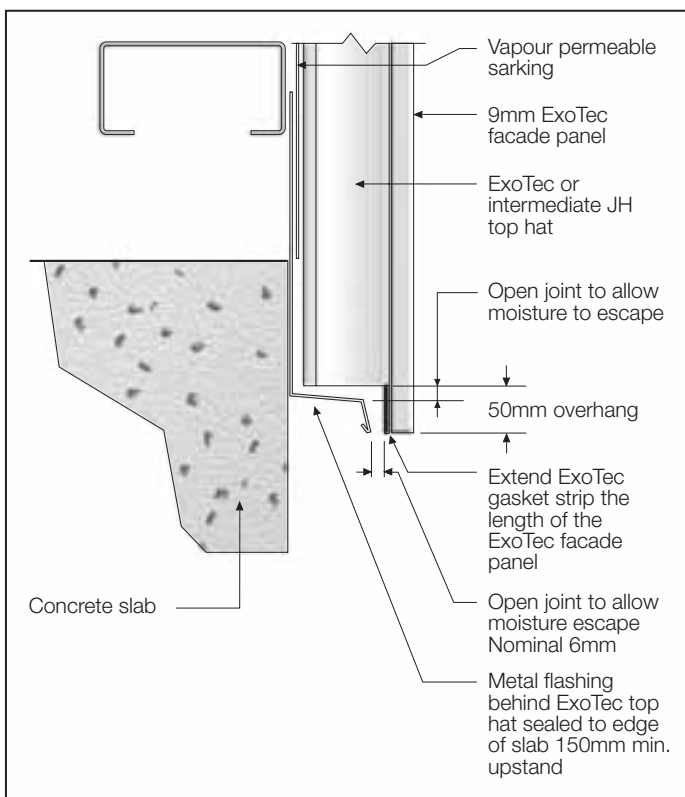


FIGURE 24 WALL BASE TYPICAL DETAIL 1

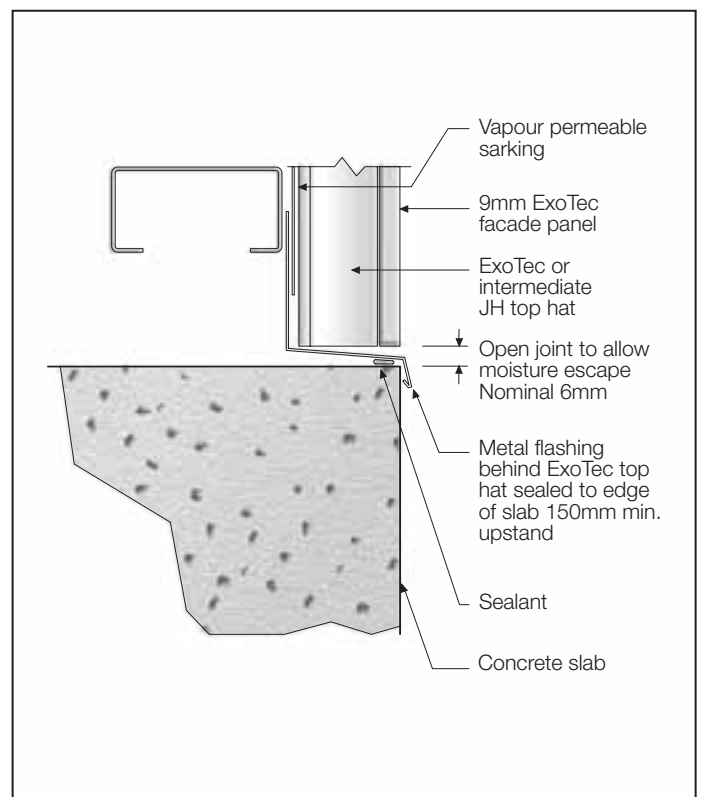


FIGURE 26 WALL BASE TYPICAL DETAIL 2

HEAD SLAB JUNCTION

Where the cladding forms a junction with an exposed slab, the detail must accommodate for slab deflection. Refer to the structural engineer for appropriate recommendations. A typical deflection head detail is shown in Figure 27.

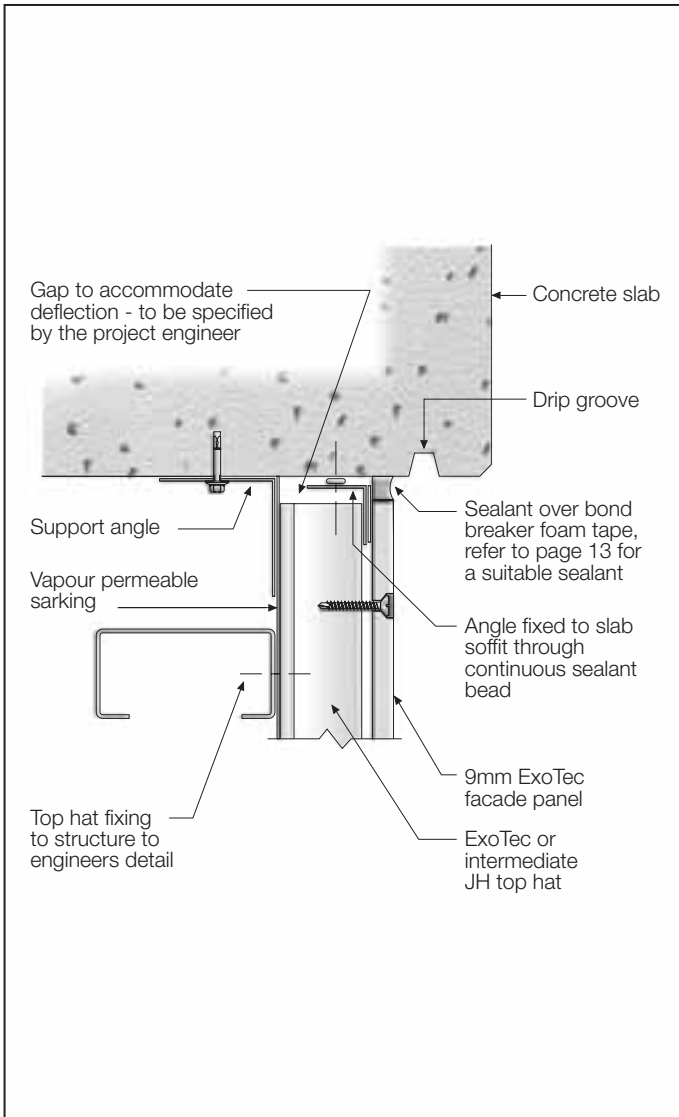


FIGURE 27 WALL DEFLECTION HEAD USED UNDER SLAB

SOFFIT JUNCTION

There are many ways of detailing the soffit junction and it is important to ensure that a drip edge is provided. A typical approach to install the soffit fascia junction is shown in Figure 28. Ensure the ExoTec gasket snap strip is installed to the bottom of the fascia panel.

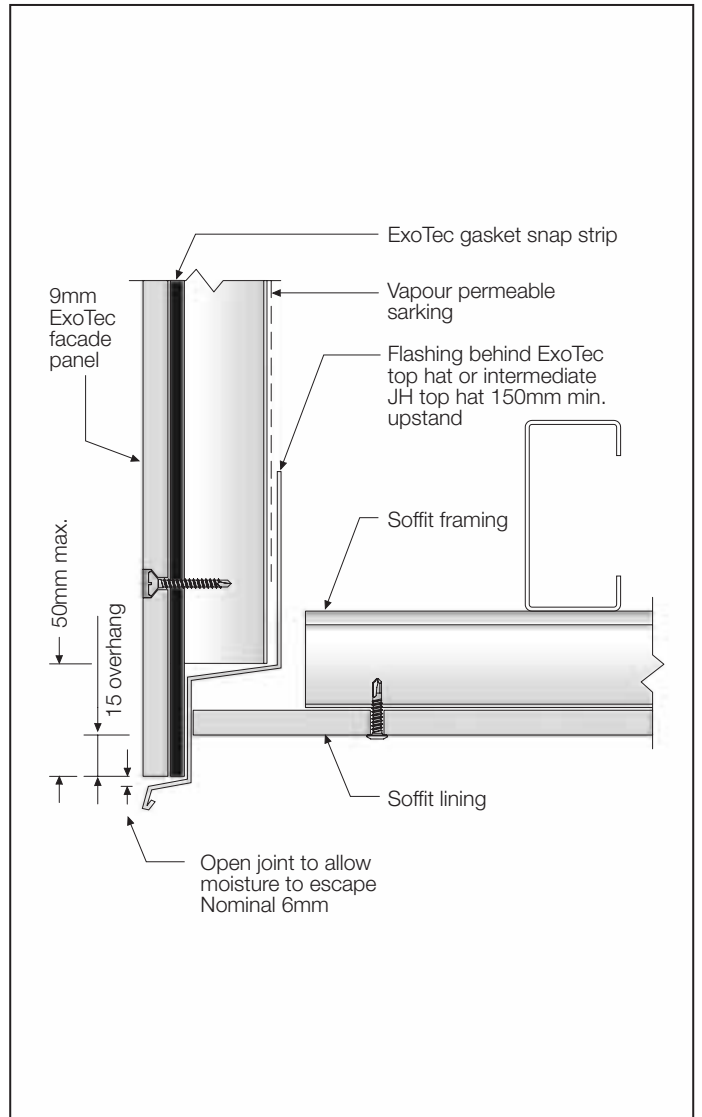


FIGURE 28 TYPICAL SOFFIT DETAIL

NOTE

It is essential that a continuous flashing is provided behind the top hats at the base of the fascia to allow moisture to escape. See Table 5 of the ExoTec facade panel and fixing system Technical Specification for required height of the flashing upstand.

10 EXTERNAL CORNERS

This section contains various methods of finishing external corners using the ExoTec facade panel and fixing system

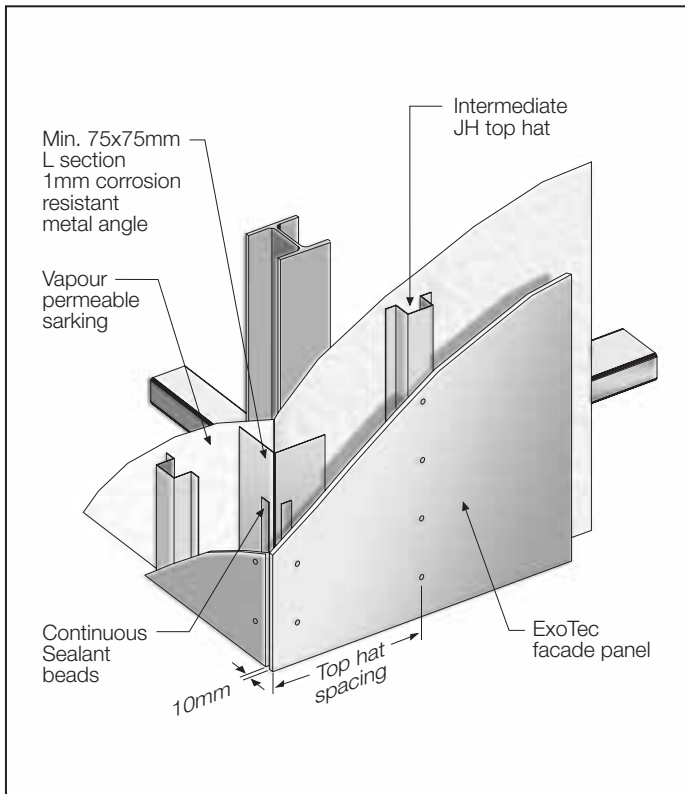


FIGURE 29 EXTERNAL CORNER CUTAWAY DETAIL

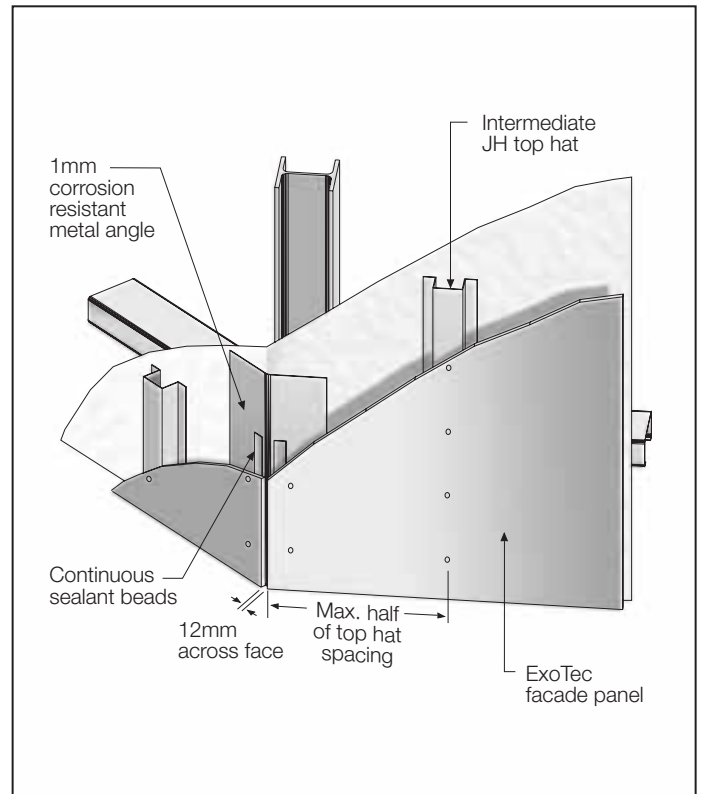


FIGURE 31 NON SQUARE EXTERNAL CUTAWAY CORNER

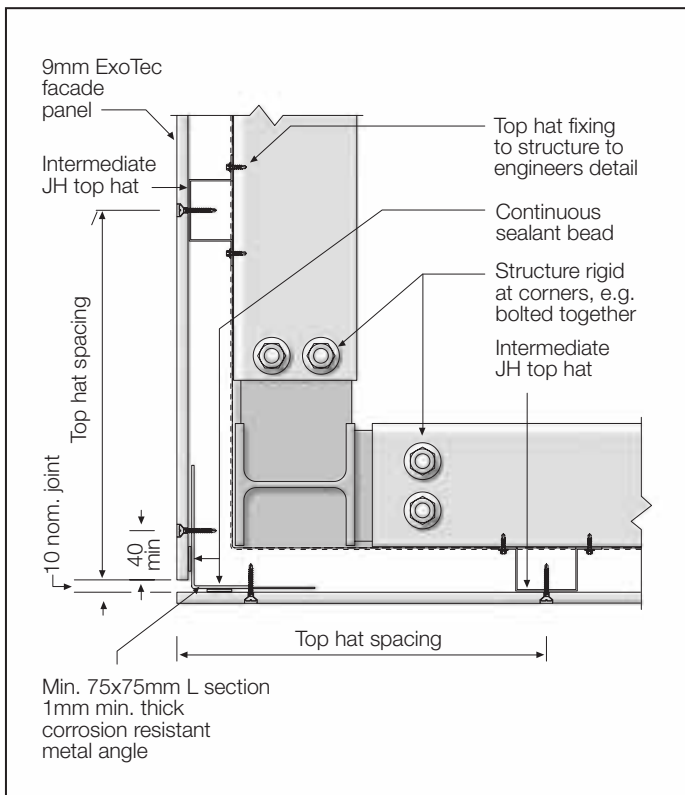


FIGURE 30 EXTERNAL CORNER DETAIL

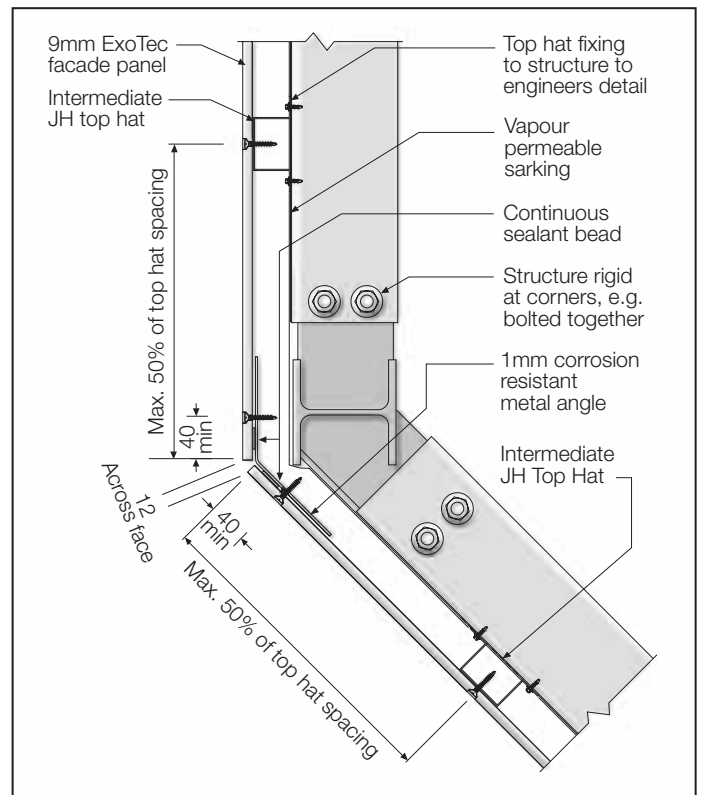


FIGURE 32 NON SQUARE EXTERNAL CORNER

11 INTERNAL CORNERS

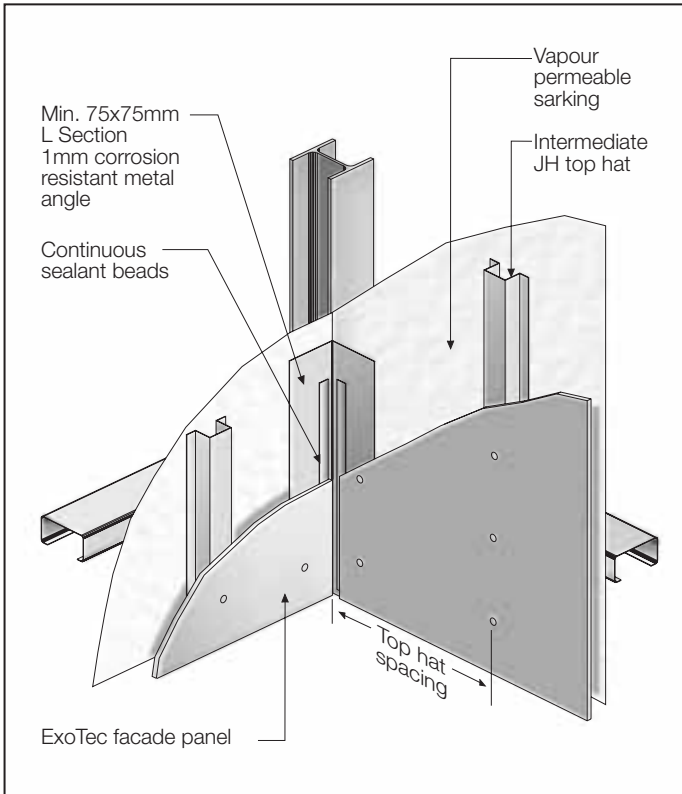


FIGURE 33 INTERNAL CORNER CUTAWAY DETAIL

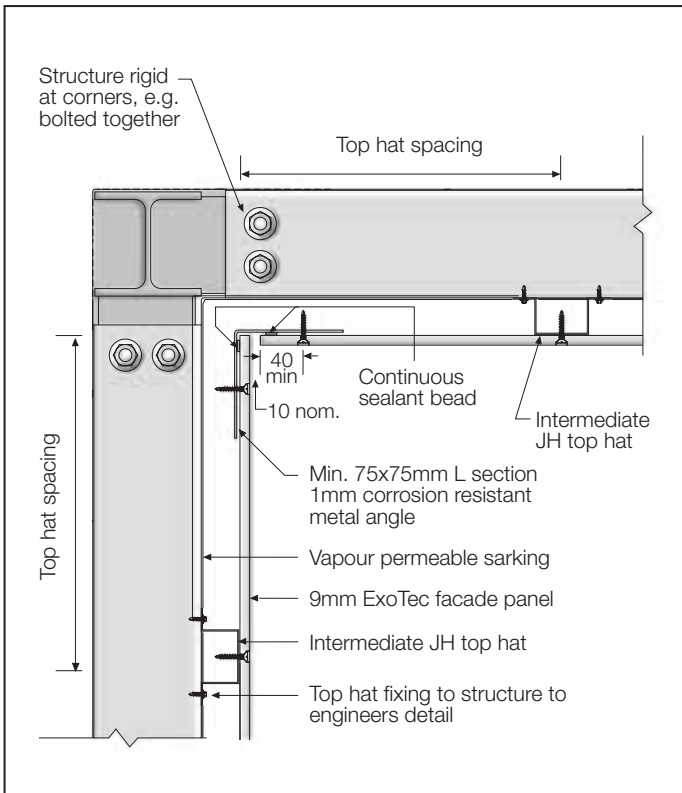


FIGURE 34 INTERNAL CORNER DETAIL

12 WINDOWS

The ExoTec facade panel and fixing system provides an opportunity to consider a range of alternative window treatments. The building designer, in conjunction with the window manufacturer, must consider the adequate weatherproofing of the window application.

Windows may be flush with the facade using figures 35–45. This is a guide only. All windows are different and sufficient provision for moisture management must be made, see Clause 2.5 of the ExoTec facade panel and fixing system Technical Specification.

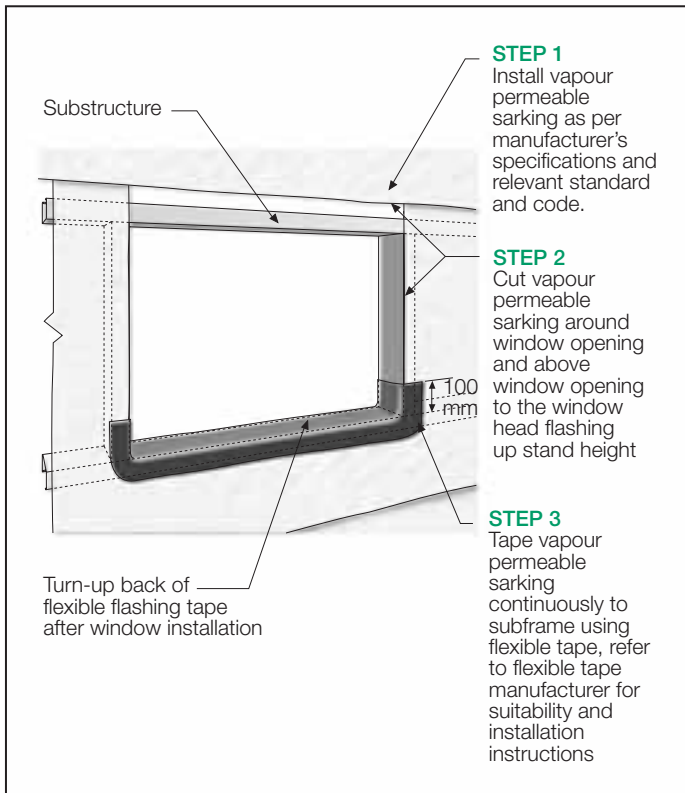


FIGURE 35 INSTALLATION OF VAPOUR PERMEABLE SARKING

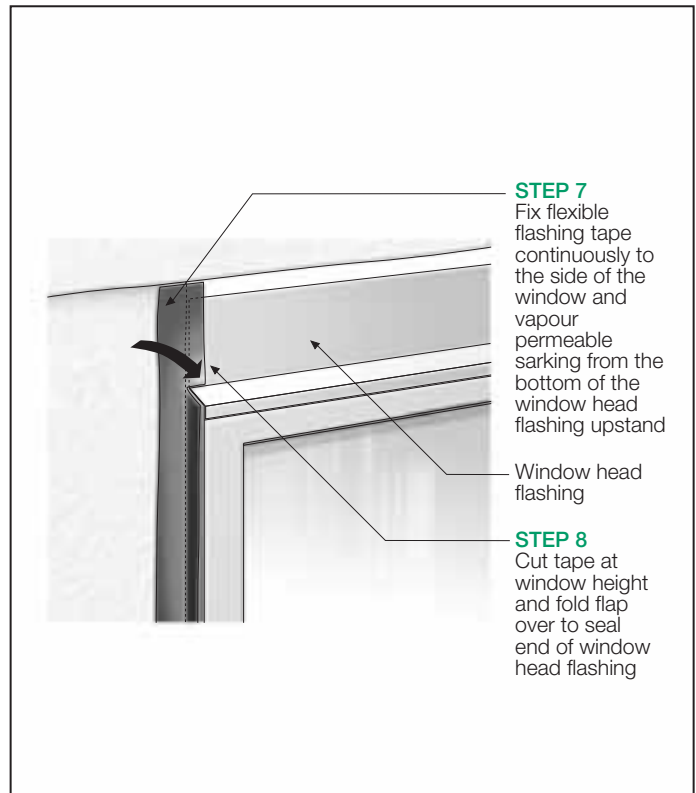


FIGURE 37 HEAD INSTALLATION OF WINDOW

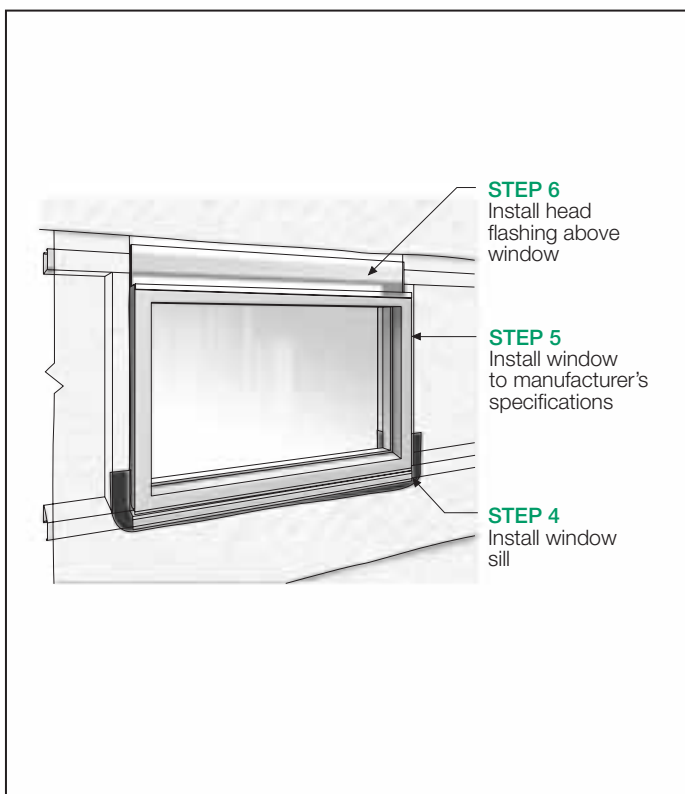


FIGURE 36 INSTALLATION OF WINDOW



FIGURE 38 INSTALLATION OF WINDOW

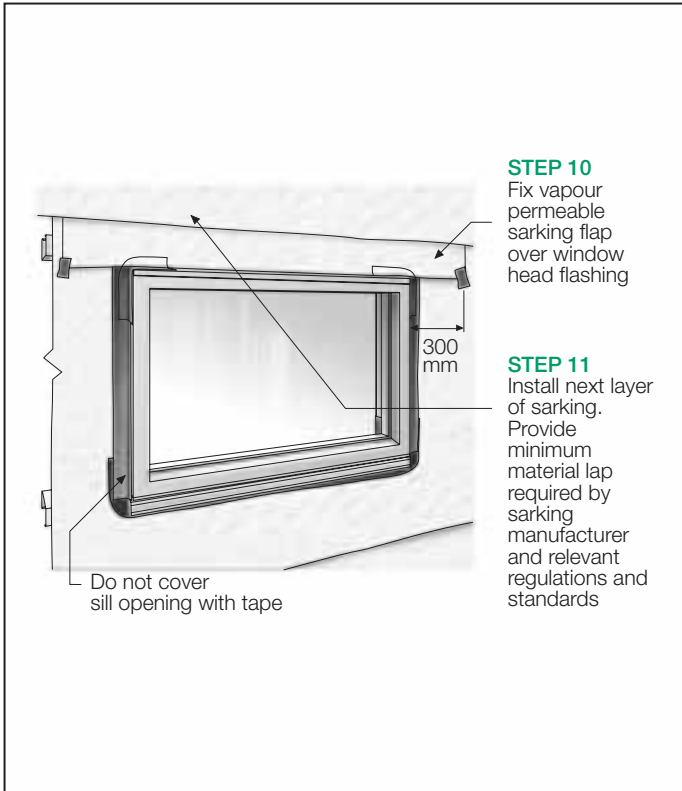


FIGURE 39 PREPARATION AROUND WINDOW

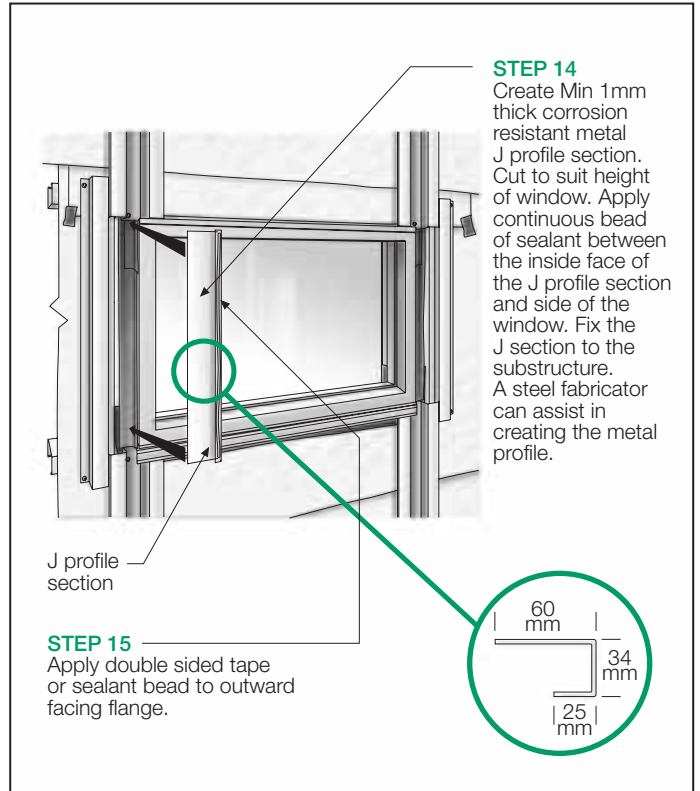


FIGURE 41 INSTALLATION OF J SECTION

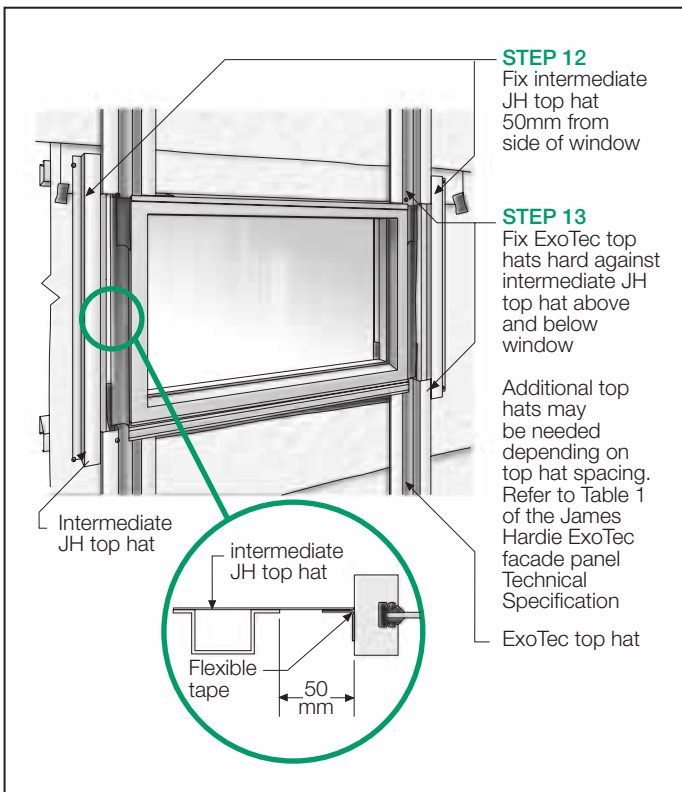


FIGURE 40 INSTALLATION OF TOP HATS AROUND WINDOW

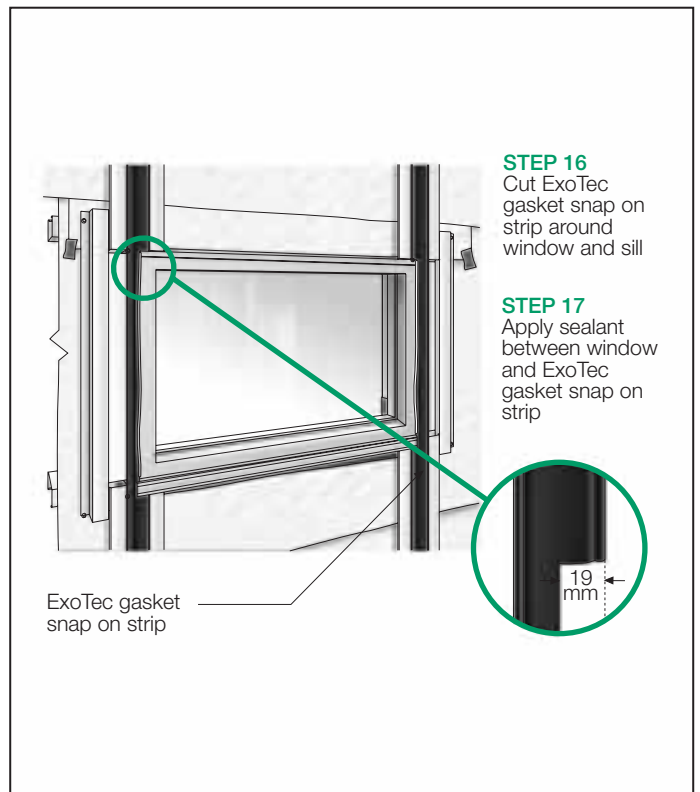


FIGURE 42 INSTALLATION OF SNAP ON STRIP

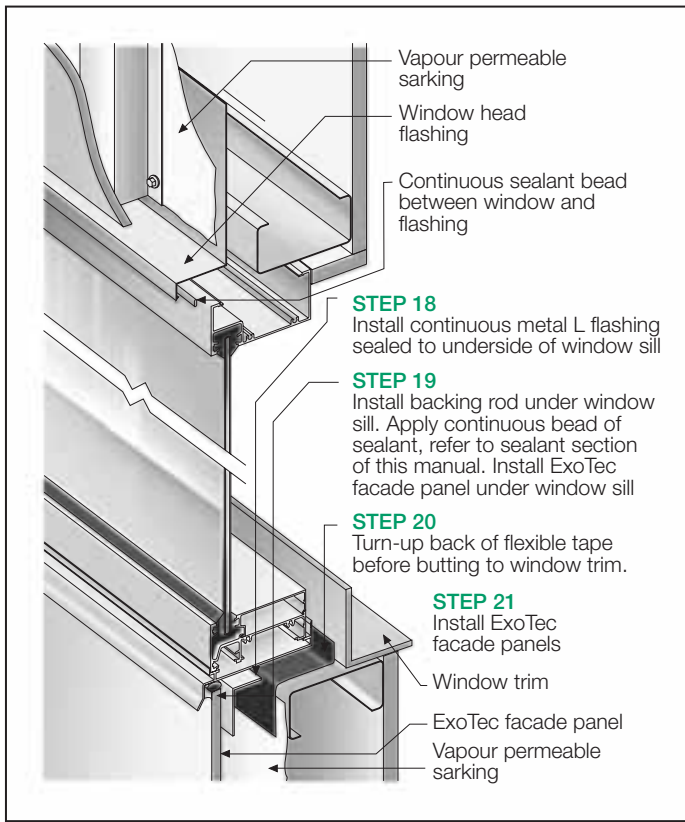


FIGURE 43 OVERVIEW CUTAWAY SECTION OF WINDOW

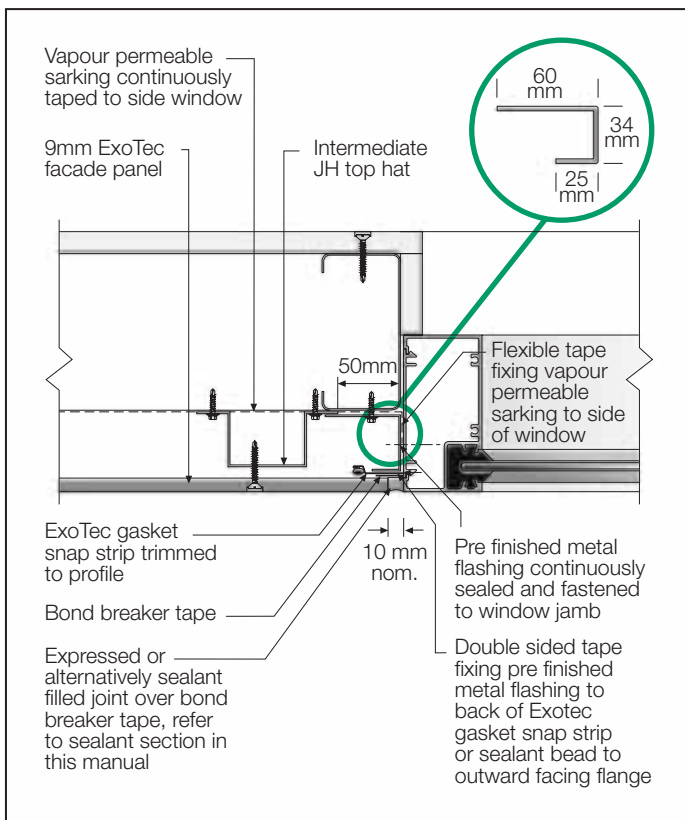


FIGURE 44 WINDOW JAMB DETAIL

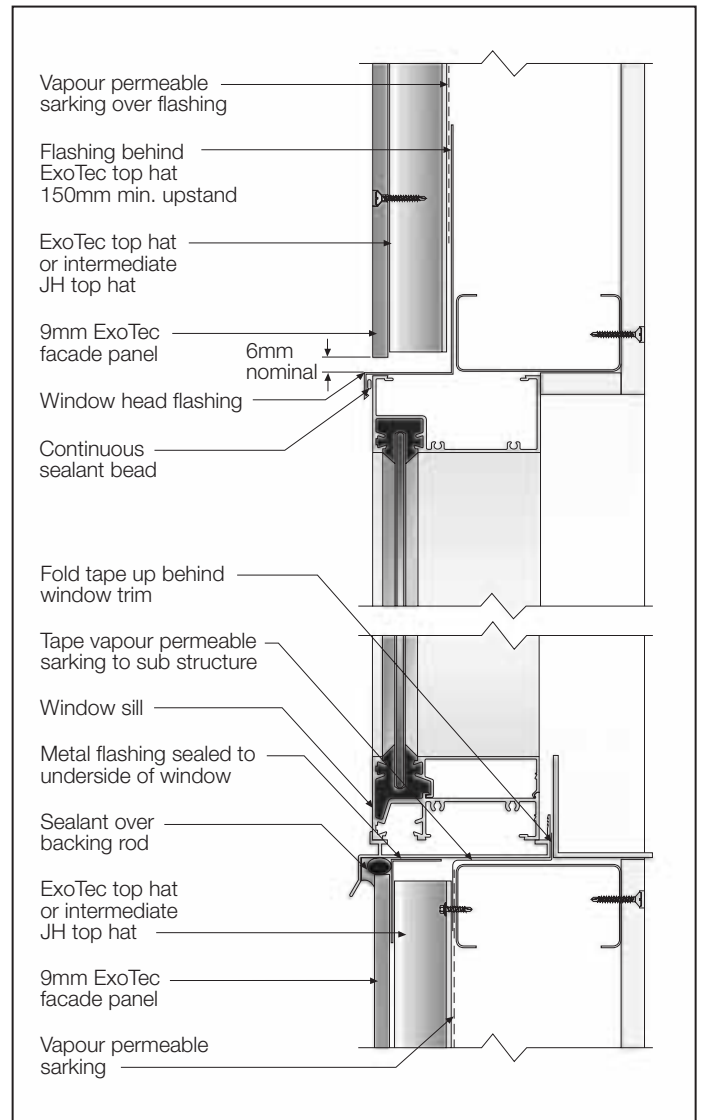


FIGURE 45 CROSS SECTION OF WINDOW

13 PARAPET DETAILS

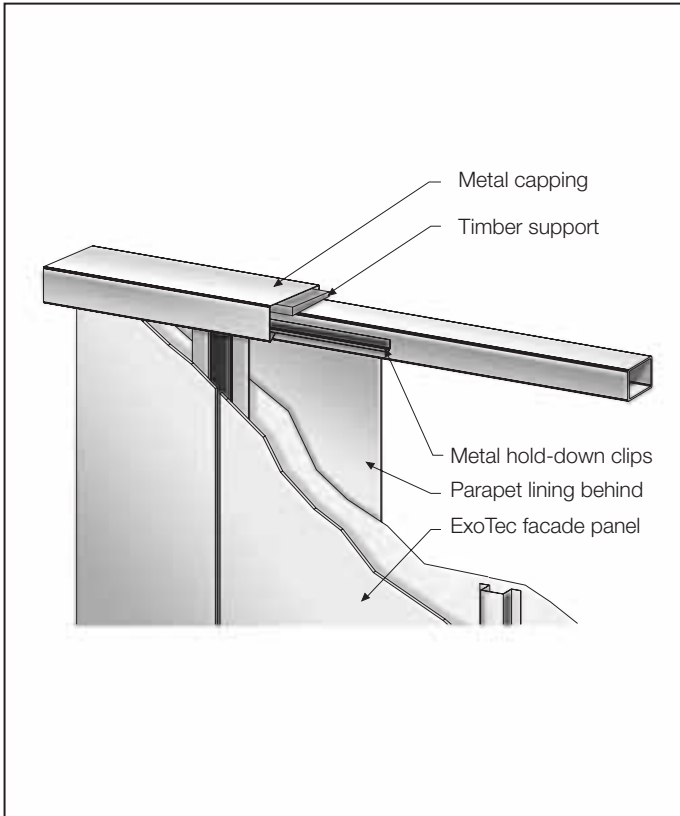


FIGURE 46 PARAPET CAPPING CUTAWAY DETAIL 1

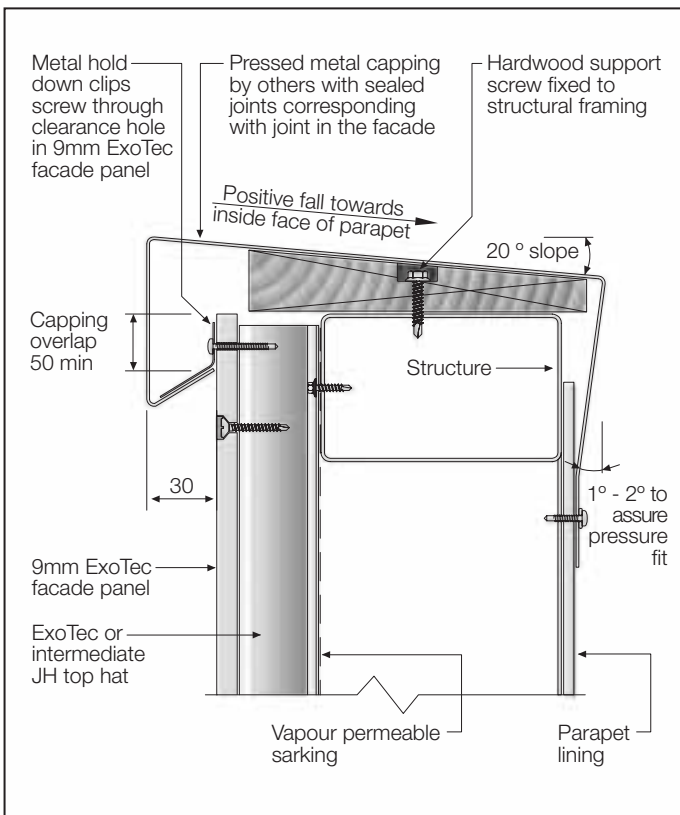


FIGURE 47 PARAPET CAPPING DETAIL 1

14 FINISHING

GENERAL

ExoTec facade panels will readily accept a wide variety of applied finishes, including site-applied textures and factory finishes.

For site-applied finishes (acrylic coatings), follow the paint manufacturer's recommended advice to adequately cover the sanded smooth Har diStop basecoat filler applied over the epoxy filled concealed fixings (refer to fixing section).

In order to seal cut edges or sanded patches two coats of an appropriate primer should be applied at the time of cutting or sanding e.g. Dulux AcraPrime 501/1 (water based).

The face and edges of the panels must be coated in accordance with the paint manufacturer's recommendations.

For further information contact the service centre of the relevant paint company, as follows:

- Dulux Trade Customer Service on 13 23 77
- Taubmans Customer Service on 13 16 86
- Wattyl Hotline on 13 21 01

Polyurethane paints are not suitable as a site-applied finish but can be factory coated prior to installation. Pre-finished panels are generally installed using exposed head fasteners

Some environments require special coatings. Painting selection and specifications are dependant on the paint chosen. Refer to the paint manufacturer.

Fixing tiles onto ExoTec facade panels is not recommended.

PANELS EXPOSED TO DIRECT SUNLIGHT

The face or rear of the panels must not be exposed to direct sunlight for any period greater than six months. The face must be over-coated as recommended by the paint companies mentioned above. However, if the rear clear sealer is exposed to direct sunlight by its application, e.g. fascias, plantrooms, etc., then the clear sealer must be coated with a minimum of one coat of an exterior grade acrylic, pigmented white, with a minimum of 10 years warranty, by one of the paint companies previously mentioned.

It is the responsibility of the specifier to identify other weather related risks with any particular building design.

NOTE

Refer to the previously mentioned paint companies for suitable rear face surface preparation on the ExoTec facade panels.

NOTES

15 MAINTENANCE

It is the responsibility of the specifier to determine normal maintenance requirements.

The extent and nature of maintenance will depend on the geographical location and exposure of the building. As a guide, it is recommended that basic normal maintenance tasks shall include but not be limited to:

In coastal areas, a six monthly washdown of expressed joints must be done as per Clause 2.4. in the current ExoTec facade panel and fixing system Technical Specification.

Annual checks and maintenance for the exposed sealant (3mm fillet at horizontal joints, filled vertical and horizontal joints) referenced in Clauses 6.2, 6.3, 6.4, 6.5, 6.6, 7.1, 9, 11.1 and 11.2, must be done as required by the sealant manufacturer, refer to the current ExoTec facade panel and fixing system Technical Specification.

Maintenance to painted surfaces must be carried in accordance with the paint manufacturer's specification, refer to section 14 in this manual.

As required, clear debris build up against ExoTec facade panels.

Maintain sealant as per manufacturer recommendations, to ensure weather seal.

Clean out gutters, blocked pipes and overflows as required.

16 WARRANTY

James Hardie Australia Pty Limited ("James Hardie") warrants for a period of 10 years from the date of purchase that the ExoTec® facade panel (the "Product"), will be free from defects due to defective factory workmanship or materials and, subject to compliance with the conditions below, will be resistant to cracking, rotting, fire and damage from termite attacks to the extent set out in James Hardie's relevant published literature current at the time of installation. James Hardie warrants for a period of 12 months from the date of purchase that the accessories supplied by James Hardie will be free from defects due to defective factory workmanship or materials.

Nothing in this document shall exclude or modify any legal rights a customer may have under the Trade Practices Act or otherwise which cannot be excluded or modified at law.

CONDITIONS OF WARRANTY

The warranty is strictly subject to the following conditions:

- a) James Hardie will not be liable for breach of warranty unless the claimant provides proof of purchase and makes a written claim either within 30 days after the defect would have become reasonably apparent or, if the defect was reasonably apparent prior to installation, then the claim must be made prior to installation;
- b) this warranty is not transferable;
- c) the Product must be installed and maintained strictly in accordance with the relevant James Hardie literature current at the time of installation and must be installed in conjunction with the components or products specified in the literature. Further, all other products, including coating and jointing systems, applied to or used in conjunction with the Product must be applied or installed and maintained strictly in accordance with the relevant manufacturer's instructions and good trade practice;
- d) the project must be designed and constructed in strict compliance with all relevant provisions of the current BCA, regulations and standards;
- e) the claimant's sole remedy for breach of warranty is (at James Hardie's option) that James Hardie will either supply replacement product, rectify the affected product or pay for the cost of the replacement or rectification of the affected product;
- f) James Hardie will not be liable for any losses or damages (whether direct or indirect) including property damage or personal injury, consequential loss, economic loss or loss of profits, arising in contract or negligence or howsoever arising. Without limiting the foregoing James Hardie will not be liable for any claims, damages or defects arising from or in any way attributable to poor workmanship, poor design or detailing, settlement or structural movement and/or movement of materials to which the Product is attached, incorrect design of the structure, acts of God including but not limited to earthquakes, cyclones, floods or other severe weather conditions or unusual climatic conditions, efflorescence or performance of paint/coatings applied to the Product, normal wear and tear, growth of mould, mildew, fungi, bacteria, or any organism on any Product surface or Product (whether on the exposed or unexposed surfaces);
- g) all warranties, conditions, liabilities and obligations other than those specified in this warranty are excluded to the fullest extent allowed by law;
- h) if meeting a claim under this warranty involves re-coating of Products, there may be slight colour differences between the original and replacement Products due to the effects of weathering and variations in materials over time.

DISCLAIMER

The recommendations in James Hardie's literature are based on good building practice, but are not an exhaustive statement of all relevant information and are subject to conditions (c), (d), (f) and (g) above. Further, as the successful performance of the relevant system depends on numerous factors outside the control of James Hardie (eg quality of workmanship and design) James Hardie shall not be liable for the recommendations in that literature and the performance of the relevant system, including its suitability for any purpose or ability to satisfy the relevant provisions of the Building Code of Australia ("BCA"), regulations and standards.

Ask James Hardie™
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