

Flooring - Internal

Installation guide

HardiePanel™ compressed sheet



James Hardie
A smarter way to build

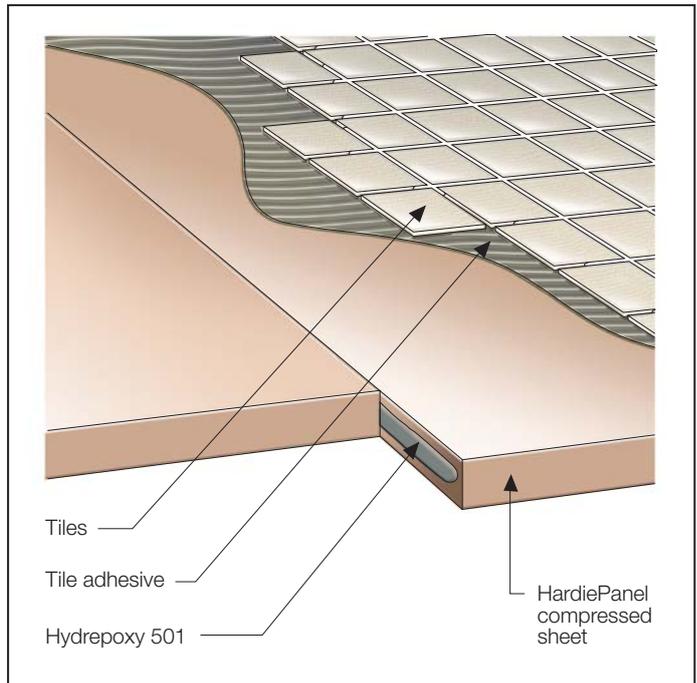
AUSTRALIA APRIL 2012

1 INTRODUCTION

James Hardie HardiePanel™ compressed sheets are an alternative product to timber, particle board or plywood flooring and are an excellent substrate for ceramic tiles in wet and dry areas.

HardiePanel compressed sheets are commonly employed in preference to concrete flooring where conditions are such that either access is difficult or the structure will not accept the load of concrete. This difficulty is common in retrofit work.

HardiePanel compressed sheets provide a durable, strong and moisture resistant flooring substrate. They are commonly used in wet areas with confidence and are an excellent substrate for ceramic tiles.



The specifier or other responsible party for the project must ensure the information and details in this guide are appropriate for the intended application and that specific design and detailing is undertaken for areas which fall outside the scope of this documentation.

This manual covers the use of HardiePanel compressed sheets for internal structural flooring applications over lightweight timber or steel joists in domestic and commercial applications.

For wet area applications this manual must be read in conjunction with James Hardie's Wet area construction Design Manual which provides wet area waterproofing requirements and details.

For external decking applications refer to James Hardie's HardiePanel compressed sheets decking construction Technical Specification.

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 if you need more information, visit www.jameshardie.com.au or Ask James Hardie™ on 13 11 03.

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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:

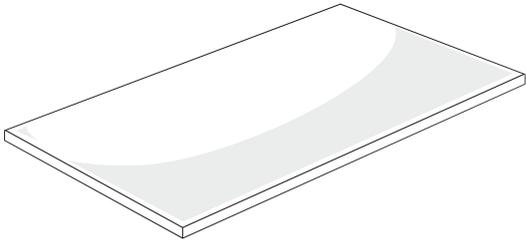
Ask James Hardie™

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literaturefeedback@jameshardie.com.au



HARDIEPANEL COMPRESSED SHEET SIZES

	Sheet sizes: length (mm)	Width (mm)	Thickness (mm)
	1500*	900 1200	15/18 15/18
	1800	900 1200	15/18 15/18
	2100	1200	15/18
	2400	900 1200	15/18 15/18/24
	2700	1200	15
	3000	900 1200	15/18 15/18

*Not available in WA.

*All dimensions and masses are approximate and subject to manufacture tolerances.

PRODUCT / ACCESSORIES / TOOLS

COMPONENTS SUPPLIED BY JAMES HARDIE

	HardieBlade™ Saw Blade. 185mm diameter A 185mm diameter poly-diamond blade for fast and clean cutting of James Hardie fibre cement. Bore diameter is 20mm. 1 each. Part No. 300660		HydrEpoxy® 501 (two-part epoxy, 2 litre set) A two-part epoxy to join HardiePanel™ compressed sheets. 1 set includes both Part A and Part B tubs. Part No. 305529
	James Hardie™ Joint Sealant. 300ml cartridge A general purpose, paintable, exterior grade polyurethane joint sealant. 20 per box. Part No. 305534		

COMPONENTS NOT SUPPLIED BY JAMES HARDIE

James Hardie recommends the following products for use in conjunction with its HardiePanel compressed sheet. James Hardie does not supply these products and does not provide a warranty for their use. Please contact the component manufacturer for information on their warranties and further information on their products.

ACCESSORIES	DESCRIPTION	TOOLS	DESCRIPTION
	Countersunk fasteners N° 10 x 40mm countersunk head woodscrew.		Level/straight edge For checking straightness of frame.
	Countersunk fasteners N° 10 x 30mm countersunk head self drilling screws.		Countersunk head drill 6mm countersinking bit.
	6mm masonry drill Provides a 6.2 to 6.3mm diameter hole.		Cordless drill Recommended tool for screw fixing the HardiePanel compressed sheet.
	Backing rod Backing to sealant in movement joints.		Wire brush Recommended for cleaning edges of HardiePanel compressed sheet.
	Spatula For applying HydrEpoxy to the sheet edges.		

2 SAFE WORKING PRACTICES

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

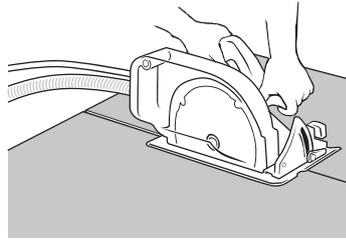
James Hardie products contain sand, a source of respirable crystalline silica which is considered by some international authorities to be a cause of cancer from some occupational sources. Breathing excessive amounts of respirable silica dust can also cause a disabling and potentially fatal lung disease 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 HardieBlade™ 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.

WORKING INSTRUCTIONS

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

HardieBlade™ Saw Blade

The HardieBlade™ Saw Blade used with a dust-reducing saw and HEPA vacuum extraction allows 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.



JAMES HARDIE RECOMMENDED SAFE WORKING

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 HardieBlade™ Saw Blade and HEPA vacuum extraction.

DRILLING/OTHER MACHINING

When 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 HardieBlade™ 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.

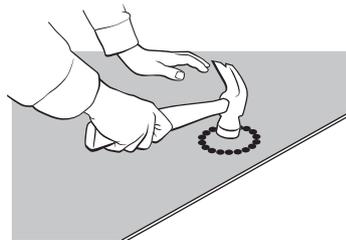
HOLE-FORMING

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.

3 DESIGN

GENERAL

The Building Code of Australia (BCA) requires that floor structures be designed to meet the load requirements of Australian Standard AS 1170.1-2002; 'Structural design actions: Part 1 Permanent, imposed and other actions'. The combinations of dead and live loads are given by Part 0 of that standard.

In residential construction the normal practice is to use 15mm thick sheets supported on joists at 450mm centres, or 18mm/24mm sheets supported at 600mm centres.

The sheets are fixed so that the lengthwise direction spans across the joists, and in this case there is no need to have trimmers between the joists to support the sheet ends, see page 8.

CONCENTRATED LOADS

For residential applications, Table 3.1 of AS 1170.1 specifies a concentrated load of 1.8kN on a 350mm² area, which is equivalent to a 21.1mm diameter round or 18.7mm square applicator. As seen in Table 1 below, all HardiePanel compressed sheets are able to sustain this load.

For other residential and commercial indoor applications, the concentrated loads of 2.7kN, 3.5kN and 4.5kN and greater are applied over an area of 0.01m², namely a 100mm square applicator. The selection of the floor sheet thickness therefore depends on the magnitude of the concentrated load. In these applications all sheet edges must be fully supported.

TABLE 1

MAXIMUM ALLOWABLE CONCENTRATED LOAD (kN)			
Thickness (mm)	Joist Spacing (mm)	Load Applicator Size 100 x 100mm or 0.01m ²	Load applicator size 350mm ²
15	400	5.2	2.1
	450	4.0	
	600	this joist spacing not recommended for 15mm HPC in non-residential applications	
18	400	6.6	2.7
	450	6.1	
	600	5.4	
24	300	11.3 (See Note 6)	5.1
	400	7.1	
	450	6.6	
	600	5.5	

The code specifies higher loads in areas subject to crowd loading, storage of materials and heavy wheel loads. Any additional imposed loads must be considered. In this regard, it is necessary to determine if loads from machinery or other imposed concentrated loads are directly over supporting joists or whether these extraneous loads must also be supported by the flooring sheet.

We recommend that all edges of the sheet be supported in non residential construction.

UNIFORMLY DISTRIBUTED LOADS

Table 2 sets out the maximum distributed load for joist spacing between 300mm and 600mm.

TABLE 2

MAXIMUM ALLOWABLE UNIFORMLY DISTRIBUTED LIVE LOAD (KPa)						
THICKNESS (mm)	SPAN/JOIST SPACING (mm)					
	300	350	400	450	500	600
15	26.4	19.1	14.4	11.2	8.8	5.8*
18	38.4	27.9	21.1	16.5	13.2	8.8
24	69.1	50.4	38.3	30.1	24.1	16.4

NOTES TO TABLE 1 AND TABLE 2

- In all cases the deflection limit of span/200 under Serviceability Limit State loading has not been exceeded, except for the figure marked with * where the deflection is 3.8mm (span/160). If the span/200 limit is required (ie 3mm deflection), then the load must not exceed 4.6kPa.
- The above capacities are working loads that need to be factored in accordance with Section 4 of AS 1170.0 to get to Ultimate Limit State (ULS) loading. The worst case partial factor has been assumed in these designs, namely $\psi_s = 1.0$ (short term loading in storage areas).
- A working load of 1kPa has been allowed for partitioning and floor coverings in the establishment of the uniformly distributed loading capacities, noting that all figures are governed by bending strength (not deflection) except for the figure described in Note 1.
- The concentrated load capacities for the 350mm² applicator are independent of the joist spacing because the failure mode will be punching shear.
- Unless noted otherwise (ie concentrated load capacity for 0.01m² load areas), HardiePanel compressed sheets will provide these load capacities even if they become fully saturated.
- The shaded figures in Table 1 cater for light vehicle traffic areas such as parking garages, driveways and ramps restricted to cars, light vans etc not exceeding 2500kg gross mass, where the design load of AS/NZS 1170.1 is 13kN. Should full saturation of the HPC sheet accidentally occur, it will not result in failure of the floor, but in a temporary reduction of the factors of safety inherent in the design until the sheets dry out.
- Table 2 sets out the maximum distributed loads when all sheet edges are supported by structural framing.

4 FRAMING

GENERAL

HardiePanel compressed sheet flooring may be fixed to timber or steel joists. The type, size and spacing of the joists should be determined by a structural engineer. The thickness of the timber joist or the flange width of the steel joists should be sufficient (45mm minimum) to allow correct fixing of the HardiePanel compressed sheet.

Standard timber or steel joist framing systems are suitable for use with HardiePanel compressed sheets.

Joists should be spaced at maximum 450mm centres for 15mm sheets and maximum 600mm centres for 18mm and 24mm sheets.

Joists and trimmers must be 45mm minimum width to allow correct fixing of the HardiePanel compressed sheets.

It is preferred to lay the sheets with the long edges across the joists because trimmers are not required between joists to support the long edges of sheets. In this case ends must be supported on the center line of joists. When the sheets are laid along the joists, both the long and short edges of the sheets require continuous support, i.e. trimmers are required at sheet ends. Sheet edges must be supported on the center line of joists and trimmers.

Trimmers may also be provide where higher than normal > 1.8kN concentrated loads may be anticipated. Such loads may be caused by antique baths (i.e. claw and ball), heavy machinery with legs, or where there will be the use of trolleys.

NOTE

HardiePanel compressed sheet flooring should not be used where steel or hard resin type wheels are employed on materials handling equipment i.e. pallet jacks.

TIMBER FRAMING

Use of timber framing must be in accordance with AS 1684 'Residential timber-framed construction' and the framing manufacturer's specifications. Use only seasoned timber. Unseasoned timber must not be used because it is prone to shrinkage and can cause sheets and frames to move.

'Timber used for house construction must have the level of durability appropriate for the relevant climate and expected service life and conditions including exposure to insect attacks or to moisture, which could cause decay.'

Reference AS 1684.2.

STEEL FRAMING

Use of steel framing must be in accordance with AS 3623 'Domestic metal framing' and the framing manufacturers' specifications. Framing members must be in the range 0.75mm to 1.6mm BMT (base metal thickness).

The steel framing must have the appropriate level of durability required to prevent corrosion.

LARGE TILED AREAS

A movement joint must be provided through both the floor sheeting and the tiles, spaced at not greater distance than 5m. The movement joint should be 5mm wide and filled with a polyurethane sealant over a foam backing rod.

FIXING

Space fixings at a maximum of 450mm along the joists, minimum of 12mm in from the sheet edges, and 50mm minimum from sheet corners, refer to Figure 2.

5 INSTALLATION STEPS

Step 1

Measure floor joist centres and ensure that correct sheet thickness is used, see page 5.

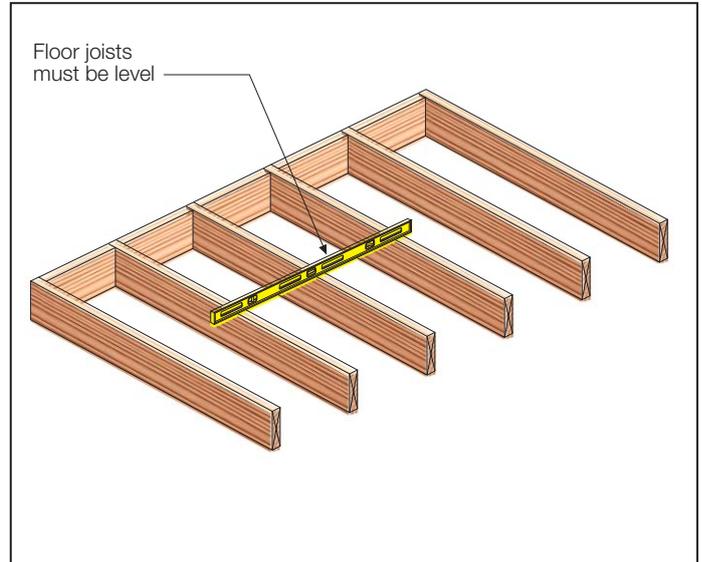


FIGURE 1 JOIST LAYOUT

HardiePanel compressed sheets may be installed along or across framing. Laying sheets across framing is preferred, as fewer trimmers are needed. Install trimmers where required to support the short ends of the sheets. Non residential applications require all sheet edges to be supported.

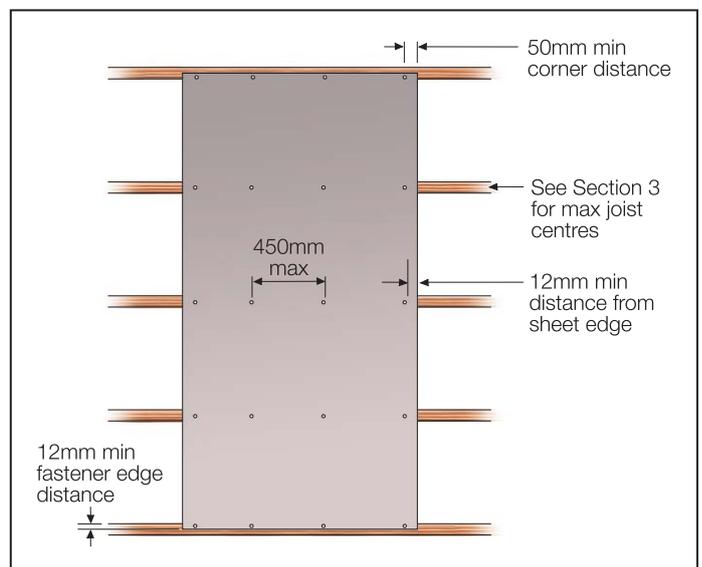


FIGURE 2 FIXING REQUIREMENTS

Step 2

Drill clearance holes into HardiePanel compressed sheet, for No.10 gauge screws using a 6mm countersunk masonry drill, which provides a 6.2 to 6.3mm diameter hole. Countersink hole to a depth of 1mm. This is measured from the top of the screw to the top of the sheet.

NOTE

Do not use hammer action.



FIGURE 3 PRE-DRILL SHEETS

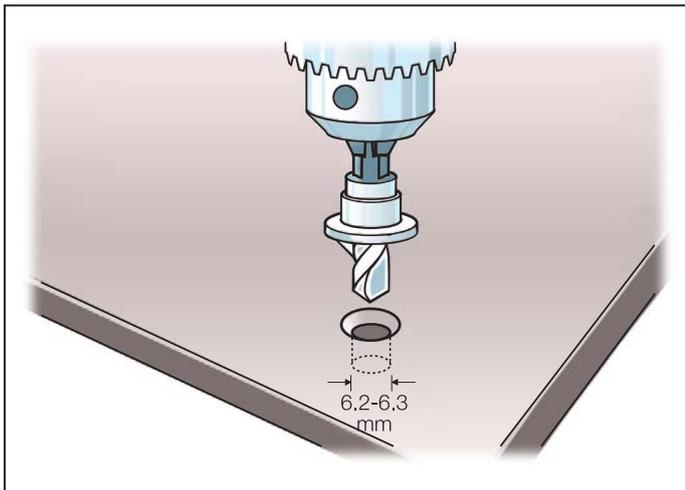


FIGURE 4 PRE-DRILL DIAMETER

Step 3

Screw-fix sheet to floor joists. Refer to Table 3 for fastener selection.



FIGURE 5 FIXING SHEET

TABLE 3

FASTENER SELECTION			
Product	Timber joists	Steel joists 0.75-1.6mm BMT	Steel joists Over 1.6-2.5mm BMT
15mm			
10g x 30mm CSK self drilling galvanised or yellow zinc wood screw.	✓		
10g x 30mm CSK self drilling galvanised or yellow zinc screw.		✓	
M6 x 30mm CSK galvanised or yellow zinc bolt with nut and washer			✓
18mm and 24mm			
10g x 40mm CSK self drilling galvanised or yellow zinc wood screw.	✓		
10g x 40mm CSK self drilling galvanised or yellow zinc screw.		✓	
M6 x 40mm CSK galvanised or yellow zinc bolt with nut and washer.			✓

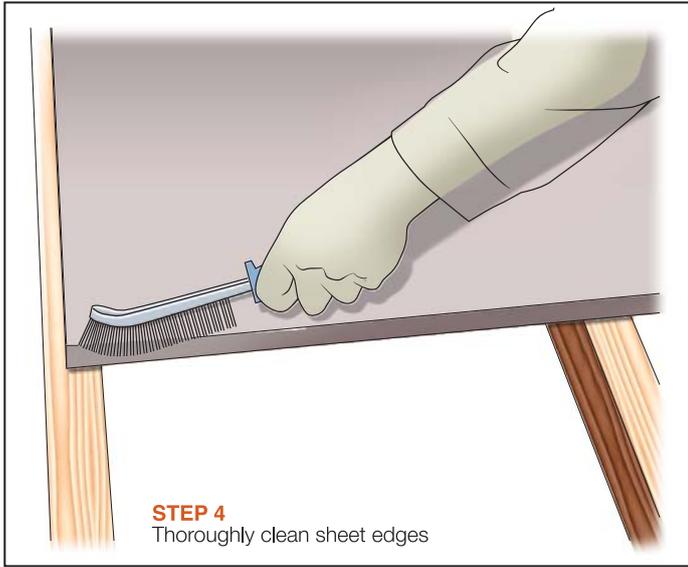


FIGURE 6 CLEAN SHEET EDGES



FIGURE 9 POSITION NEXT SHEET

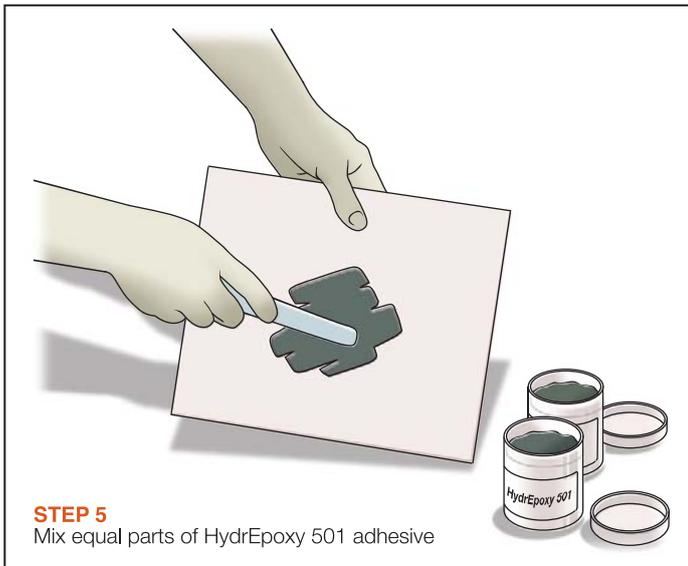


FIGURE 7 MIXING HYDREPOXY 501

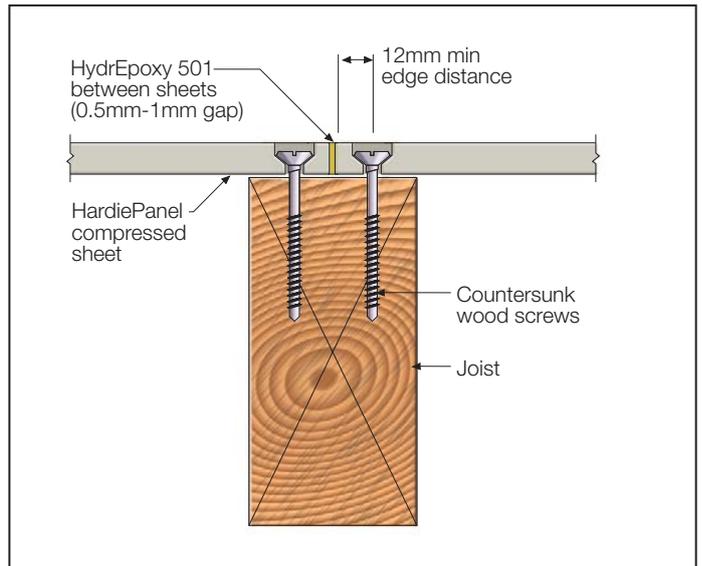


FIGURE 10 SCREW DETAIL

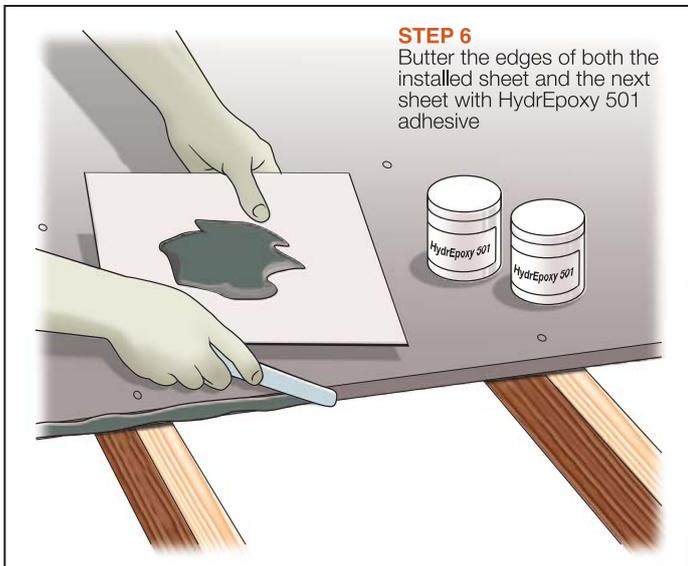


FIGURE 8 APPLYING HYDREPOXY 501



FIGURE 11 PRE DRILL NEXT SHEET

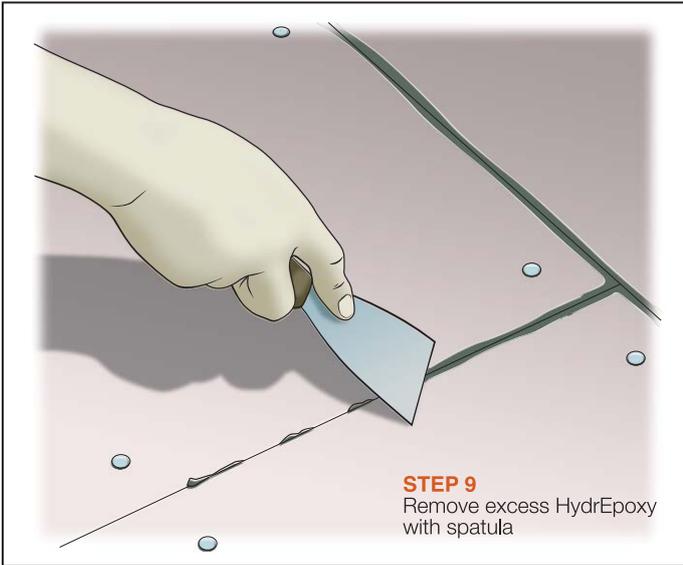


FIGURE 12 REMOVE EXCESS HYDREPOXY

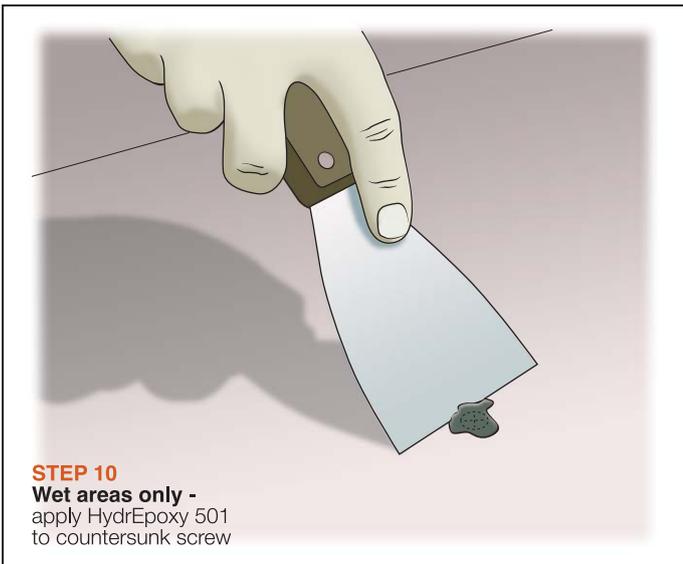


FIGURE 13 APPLY HYDREPOXY



FIGURE 14 CLEAN SURFACE

TILING

If a fall to waste is not required, tiles can be fixed directly to the HardiePanel compressed sheeting using a proprietary tile adhesive conforming to the Australian Standards AS 2358. 'Adhesives – for fixing ceramic tiles' and AS 3958.1 'Ceramic Tiles – Part 1 Guide to the installation of ceramic tile'. For flooring applications a two part polymer modified cement is generally acceptable.

For this method, arrange or cut tiles so that a movement joint is carried through the tiles at all joints between sheets. Caulk such joints with a flexible wet area sealant rather than a tile grout.

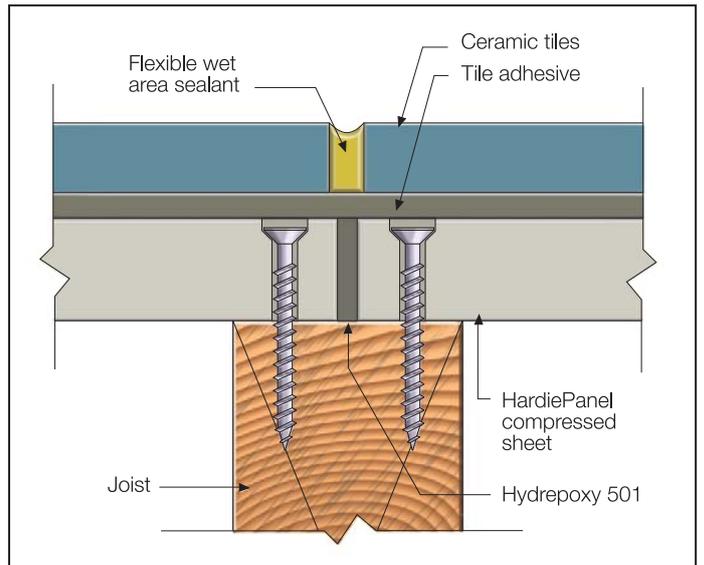


FIGURE 15 TILE JOINTS - NO MORTAR BED

CONTROL JOINTS

A movement joint must be provided through both the floor sheeting and the tiles, spaced at not greater distance than 5m. The movement joint should be 5mm wide and filled with a polyurethane sealant over a foam backing rod. Movement joints must also be placed where HardiePanel compressed sheet adjoins another flooring substrate such as timber flooring or a concrete slab.

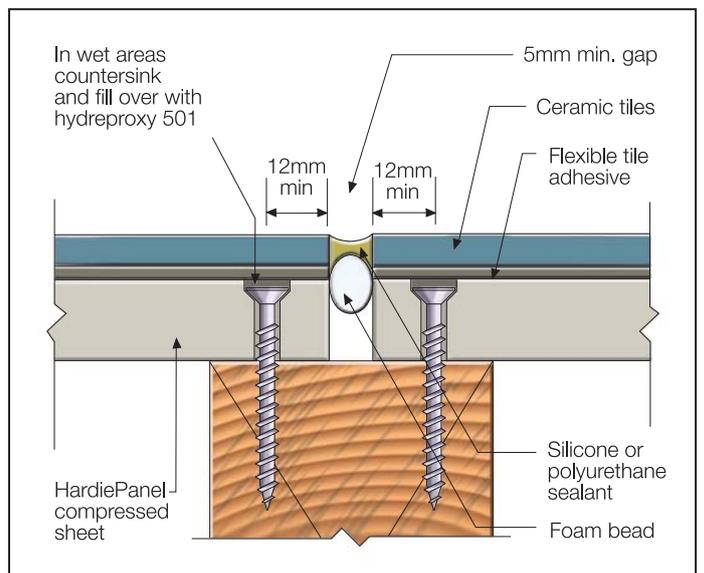


FIGURE 16 CONTROL JOINTS

6 PRODUCT INFORMATION

MORTAR BEDS

Reinforced at joints – less than 30mm

If a fall to waste is required, floor tiles can be bedded directly into a graded mortar bed applied over HardiePanel compressed sheets.

The mortar bed must be reinforced over all sheet joints using 150mm wide galvanised wire mesh strip, approximately 1mm diameter gauge, embedded centrally in the mortar bed.

Prior to laying the mortar bed, clean down the floor and apply a coat of 'Cemstick' or equal to the floor.

The cement mortar bed must be 25mm nominal thickness and not less than 15mm thick at the floor wastes, with fall provided as required.

Reinforced – 30mm min

Both slate and marble are commonly used for tiling purposes.

A. Slate floor tiles

Slate may be used in much the same way as ceramic tiles. The slate should not be less than 9mm thick.

B. Marble floor tiles

Marble is a relatively weak material and if used as a flooring material should be isolated from structural movement. This can be achieved by modifying the flooring system to incorporate a fully reinforced mortar bed as shown. It is recommended that the services of a tradesperson experienced in the application of marble tiles be obtained.

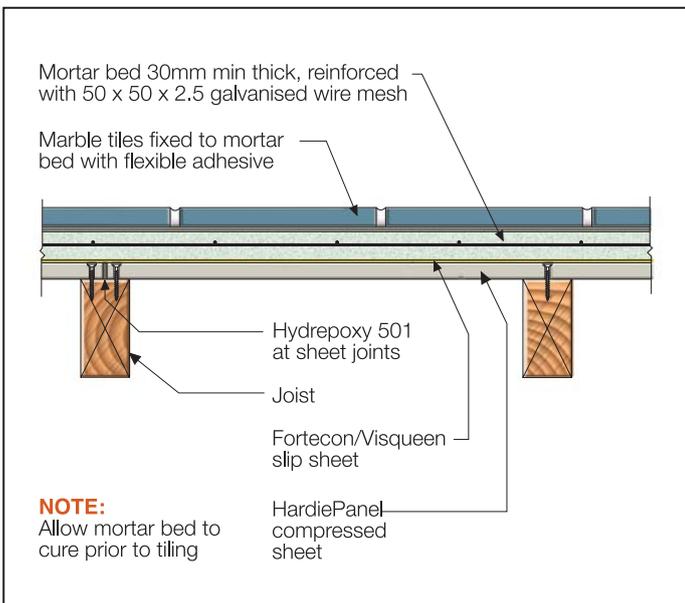


FIGURE 17 MORTAR BED

GENERAL

HardiePanel compressed sheets are a cellulose fibre reinforced cement building product. The basic composition is Portland cement, ground sand, cellulose fibre and water.

HardiePanel compressed sheets are manufactured to AS/NZS 2908.2 'Cellulose-Cement Products Part 2: Flat Panels' (ISO 8336 'Fibre Cement Flat Panels').

HardiePanel compressed sheet is classified Type A, Category 4 in accordance with AS/NZS 2908.2.

For Material Safety Data Sheets (MSDS) visit www.jameshardie.com.au or Ask James Hardie™ on 13 11 03.

PRODUCT DENSITY

Based on equilibrium moisture content the approximate density of HardiePanel compressed sheet is 1620kg/m³.

DURABILITY

Resistance to moisture/rotting

HardiePanel compressed sheets have demonstrated resistance to permanent moisture induced deterioration (rotting) by passing the following tests in accordance with AS/NZS 2908.2:

- Water permeability (Clause 8.2.2)
- Warm water (Clause 8.2.4)
- Heat rain (Clause 6.5)
- Soak dry (Clause 8.2.5)

Resistance to fire

James Hardie flooring products have been tested to AS/ISO 9239, and exceed the requirements stipulated in the Building Code of Australia - Specification C1.10a Fire Hazard Properties – Floors, Walls & Ceilings. All James Hardie flooring products have a critical radiant flux values greater than the minimum requirement of 4.5 kW/m² (highest value in accordance with Table 1), and a smoke development rate well below the maximum allowable smoke development rate of 750 percentage-minutes.

Resistance to termite attack

Based on testing completed by CSIRO Division of Forest Products and Ensis Australia James Hardie building products have demonstrated resistance to termite attack.

MEMBRANES AND FINISHES

For wet area applications this manual must be read in conjunction with James Hardie's Wet area construction Design Manual which provides wet area waterproofing requirements and details. The waterproofing requirements of the relevant regulations must be met.

Once HardiePanel compressed sheets have been fixed in place, install floor tiles in accordance with tile manufacturers' specifications.

MAINTENANCE

Regular cleaning and maintenance of the finished surface, joints, junctions, penetrations etc must be carried out at regular intervals and as per the requirements of the relevant component manufacturer.

7 WARRANTY

HardiePanel™ compressed sheet

10 Year Warranty

January 2012

James Hardie Australia Pty Limited ("James Hardie") warrants to the first purchaser of HardiePanel™ compressed sheet (**Product**) from James Hardie and the last purchaser of the Product prior to installation that, subject to compliance with the Conditions of Warranty below:

- for a period of 10 years from the date of purchase, the Product will be free from defects due to defective factory workmanship or materials; and
- for a period of 10 years from the date of purchase, the Product will be resistant to damage from cracking, moisture, rotting, fire and termites to the extent set out in James Hardie's relevant published literature current at the time of installation; and
- 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.

For the purposes of this warranty, a "defect" in respect of the Product means a non-compliance with AS/NZS 2908.2:2000 Cellulose-cement products - Flat sheet.

CONDITIONS OF WARRANTY

This warranty is strictly subject to the following conditions:

- (a) James Hardie will not be liable for breach of this warranty unless the claimant provides proof of purchase of the Product and makes a written claim to James Hardie at the address set out below, 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) the Product is subject to natural variation in finish as part of the manufacturing process. The builder/installer must ensure the Product meets aesthetic requirements before installation. Subject to the terms of this warranty, after installation of the Product, James Hardie is not liable for claims arising from aesthetic surface variations if such variations were, or would upon reasonable inspection have been, apparent prior to installation;
- (c) this warranty cannot be relied upon by any other person and is not transferable;
- (d) 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. To obtain copies of such literature go to or contact Ask James Hardie™ on 13 11 03. 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;
- (e) the project must be designed and constructed in strict compliance with all relevant provisions of the current Building Code of Australia, regulations and standards;
- (f) if the claimant chooses to rely upon this warranty then the claimant's sole remedy under this warranty for breach of this 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;
- (g) In the circumstances where the Australian Consumer Law does not apply in respect of the purchase of the Product, 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);

- (h) In the circumstances where the Australian Consumer Law does not apply in respect of the purchase of the Product, all warranties, conditions, liabilities and obligations other than those specified in this warranty are excluded to the fullest extent allowed by law;
- (i) If meeting a claim under this warranty involves re-coating of Product, there may be slight colour differences between the original and replacement Product due to the effects of weathering and variations in materials over time and James Hardie is not liable for any such colour differences;
- (j) In the circumstances where the Australian Consumer Law does not apply in respect of the purchase of the Product and therefore to this warranty, all expenses incurred as a result of claiming under this warranty are to be borne by the claimant.
- (k) In the circumstances where the Australian Consumer Law does apply in respect of the purchase of the Product and therefore to this warranty, if James Hardie accepts or it is determined by James Hardie that the claimant has a valid claim under this warranty, James Hardie will bear the claimant's reasonable costs of claiming under this warranty. The claimant is responsible for all other costs of claiming under this warranty. All claims for such costs are to be notified to James Hardie at the address outlined below within 21 days from when the claimant first makes a claim under this warranty.

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 (d), (e), (g) and (h) above. Further, as the successful performance of the relevant system depends on numerous factors outside the control of James Hardie (e.g. 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, regulations and standards.

IMPORTANT NOTE

If you acquire goods manufactured by James Hardie as a consumer according to the Australian Consumer Law, our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Any rights a consumer may have under this warranty are in addition to other rights and remedies of a consumer under a law in relation to the goods to which this warranty relates. Nothing in this document shall exclude or modify any legal rights a customer may have under the Australian Consumer Law or otherwise which cannot be excluded or modified at law.

Contact details if you wish to make a claim under this warranty: For more information or to make a claim under this warranty please Ask James Hardie™ on 13 11 03, visit www.jameshardie.com.au or www.accel.com.au, email James Hardie via our website or write to James Hardie at:

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