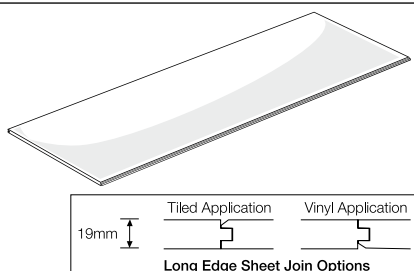


Installation instructions

IMPORTANT NOTES

1. This product has a dual function. For tiled applications, install sheet with label 'This side down for Tiles' facing down. For vinyl applications, install sheet with label 'This side up for vinyl' facing up.
2. Scyon™ Secura™ interior flooring is not suitable for external decks.
3. Scyon™ Secura™ interior flooring is suitable for tiled, vinyl and carpeted internal residential flooring applications. The maximum loading capacities are outlined in the loading section of this manual.
4. Failure to install, finish or maintain this product in accordance with applicable building codes, regulations, standards and James Hardie's written application instructions may lead to personal injury, affect system performance, violate local building codes, and void James Hardie's product warranty.
5. All warranties, conditions, liabilities (direct, indirect or consequential) and obligations whether arising in contract, tort, industry negligence or otherwise other than those specified in James Hardie's product warranty are excluded to the fullest extent allowed by law. For James Hardie's product warranty information and disclaimers about the information in this manual, see the section at the end of this manual.
6. For wet area construction, this manual must be read in conjunction with the James Hardie® Wet Area Construction Design manual which provides wet area waterproofing requirements and details.
7. The builder must ensure that the product meets aesthetic and product size specifications before installation. James Hardie will not be responsible for rectifying aesthetic surface variations following installation.
8. Make sure your information is up to date. When specifying or installing James Hardie® products, ensure that you have the current manual. If in doubt, or you need more information, visit www.jameshardie.com.au or Ask James Hardie™ on 13 11 03.



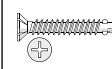
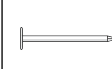

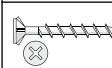



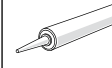



SCYON™ SECURA™ INTERIOR FLOORING

PRODUCT	DESCRIPTION
	<p>Scyon™ Secura™ interior flooring A sealed structural flooring product for both tiled or vinyl covered internal residential flooring applications.</p> <p>Tiled applications ■ Install sheet with label 'This side down for Tiles' facing down.</p> <p>Vinyl or carpet applications ■ Install sheet with label 'This side up for Vinyl' facing up</p> <p>Long edges have a tongue and groove feature for easy jointing.</p> <p>Size: 19 x 600 x 2700mm Approx. mass: 40kg per sheet. Part No. 404173</p>

NOTES

1. All dimensions and masses provided are approximate only and subject to manufacturing tolerances. Masses are based on equilibrium moisture content of product.

PRODUCT / ACCESSORIES / TOOLS

COMPONENTS SUPPLIED BY JAMES HARDIE			
ACCESSORIES	DESCRIPTION	ACCESSORIES	DESCRIPTION
	HardiBlade® saw blade Ø 185mm poly diamond blade, for fast, clean cutting of Scyon™ Secura™ Exterior Flooring. Part No. 300660		James Hardie joint sealant Polyurethane joint sealant for sealing of all sheet joints in an internal wet area and can be used to adhere sheets to framing. Part No. 300753
	HardiDrive® screw For fastening to 0.8mm to 1.6mm BMT steel frames. Class 3 finish. Length 40mm Part No. 300635		
COMPONENTS NOT SUPPLIED BY JAMES HARDIE			
James Hardie recommends the following products for use in conjunction with its Scyon™ Secura™ Exterior Flooring. 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	ACCESSORIES	DESCRIPTION
	Nails 2.8 x 50mm corrosion resistant fibre cement nails 50mm corrosion resistant D Head gun nails		Gun Nailer Suitable pneumatic or coil gun nailer.
	Screws N° 8 x 40mm Corrosion resistant self embedding head for screwing to timber.		Cordless Drill Recommended tool for screw fixing the sheets to steel and timber framing.
	QuikDrive Collated Screw 42mm long Class 3 screw for fixing to 0.8 - 1.6mm BMT steel framing. Part No. CBSDG158SA		Spatula For spreading adhesive over all sheet joints and fasteners.
	Construction Adhesive Suitable construction adhesive for gluing sheets to floor frame.		Vacuum Extraction with HEPA filter Used with HEPA filter and paper bag for reduced dust exposure.
	Dust-reducing Saw Dust reducing saw with a HardiBlade® saw blade.		Backing Rod Used to create control joints. 10mm diameter

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.

STORAGE AND HANDLING

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

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

Protective gloves must be worn while handling sheets.

SCOPE AND OVERVIEW

These installation instructions cover the use of Scyon™ Secura™ interior flooring Sheets in a vinyl and tiled application in an internal residential application. The sheets in all applications are installed across the floor framing members over timber or light gauge steel frames.

Control joints are required in tiled applications. Refer to page 3 for more information.

Tile Applications

In Internal wet and dry areas, tiles can either be directly fixed to the sheets or laid on a concrete mortar bed over the sheets. In high risk areas of a wet area eg. shower, a waterproofing membrane is required.

The sheets are installed in a staggered pattern with label **'This side down for tiles'** facing down. This allows the chamfer edge along the sheets long edge to be filled with James Hardie joint sealant in a wet area.

For Internal Wet Areas: The short sheet square ends are left with a 2 mm sealant filled gap.

For Internal Dry Areas: The short square ends are butted together with no gap and no sealant.

NOTE: Ensure all components are fully compatible with one another and suitable for the intended application including tiles and tile adhesive.

Vinyl and Carpet Applications

In Internal wet and dry areas, vinyl can be directly fixed to the sheets with the appropriate vinyl adhesive. In high risk areas of a wet area eg. shower, a waterproofing membrane is required.

The sheets are installed across the framing in a staggered pattern with the sheet label **'This side up for Vinyl'** facing up.

The short square ends are butted together with no gap and no sealant.

NOTE: Ensure all components are fully compatible with one another and suitable for the intended application including type of vinyl and adhesive.

DESIGN

General

All design and construction must comply with the appropriate requirements of the current Building Code of Australia (BCA) and other applicable regulations and standards.

Responsibility

The specifier or other party responsible for the project must ensure that the details in this specification are appropriate for the intended application and that additional detailing is performed for specific design or any areas that fall outside the scope of this specification.

Loading

The James Hardie flooring systems in this manual have been designed to satisfy the requirements for domestic and residential activities (Category A1) of Table 3.1 of AS/NZS 1170.1 - 'Structural design actions - Permanent, imposed and other actions'.

NOTE: The code specifies higher loads in areas subject to crowd loading, storage of materials and heavy wheel loads. For these application James Hardie recommends the use of HardiPanel compressed. For more information see the HardiPanel Compressed Installation Instructions.

Appraisal

Scyon™ Secura™ interior flooring has been appraised by CSIRO (Technical Assessment 318, July 2005) as satisfying the relevant requirements for use in wet areas).

FRAMING

General

Scyon™ Secura™ interior flooring may be fixed to timber or steel joists installed at 450mm max. centres. Floor joists must be 45mm wide as a minimum to enable adequate jointing of panels.

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 1.9mm BMT (base metal thickness).

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

Tolerances

In order to achieve an acceptable finish, it is imperative that framing is straight and true. Framing tolerances must comply with the relevant codes and the manufacturer's specifications.

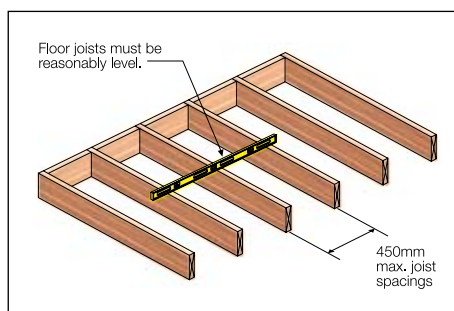


FIGURE 1 FRAME PREPARATION

FASTENERS

FASTENER SELECTION

PRODUCT	TIMBER JOISTS	STEEL JOISTS 0.75 - 1.6MM BMT	STEEL JOISTS BETWEEN 1.6 TO 1.9MM BMT
2.8 x 50mm FC nails	✓		
50mm D Head gun nails	✓		
No.8 x 40mm CSK self drilling screw	✓		
40mm HardiDrive screw		✓	
40mm CSK self drilling screws			✓*

NOTE: All fasteners must have a Class 3 finish minimum. Fasteners with equivalent dimensions (i.e. head size and shape, shank diameter and length to those above) are acceptable for use. *Refer to manufacturer's specifications for suitability.

PANEL LAYOUT

Scyon™ Secura™ interior flooring is installed across the floor joists with the short sheet edges fully supported on joists.

Tiled and Vinyl Applications

The sheets are laid in a staggered pattern. Ensure the sheets are facing the correct way down depending on the final finish ie. Tiles or Vinyl.

NOTE

1. Install sheet with label 'This side down for tiles' facing down.
2. Install sheet with label 'This side up for vinyl' facing up.

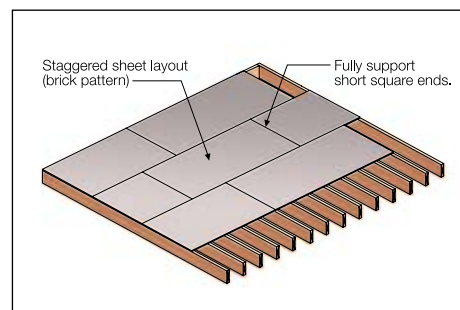


FIGURE 2 SHEET LAYOUT - TILING AND VINYL

Being 19mm thick, Scyon™ Secura™ interior flooring can be combined with traditional particleboard or plywood flooring substrates. For more information Ask James Hardie on 13 11 03.

INSTALLATION STEPS

NOTES

1. You must ensure the product is of acceptable quality prior to installation, see Important Note 5.
2. The sheet is multi purpose and depending on the finish, the short sheet ends may or may not need a gap. As a result, creep at the short sheet ends will occur and over many sheets additional floor joists may be required.

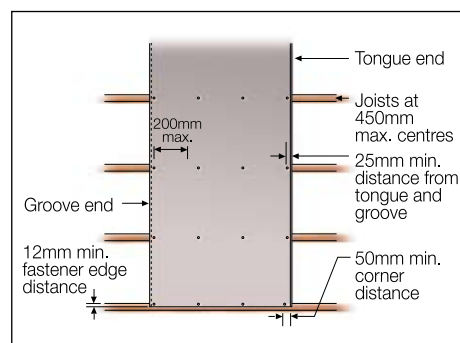


FIGURE 3 FASTENER LAYOUT



FIGURE 4 CONSTRUCTION ADHESIVE



FIGURE 5 FIXING 1ST PANEL

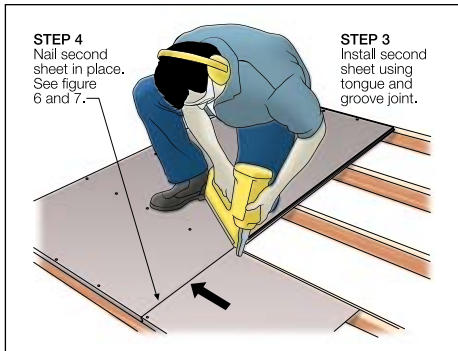


FIGURE 6 NAILING 2ND PANEL

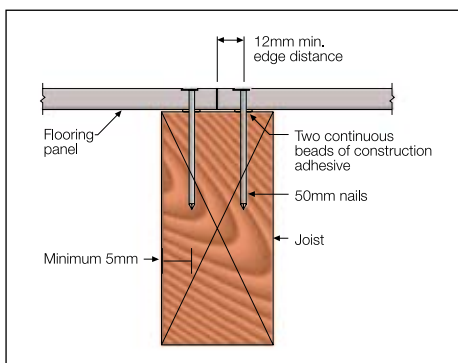


FIGURE 7 FOR INTERNAL DRY AREAS - TILE AND VINYL

FOR INTERNAL TILED WET AREAS ONLY

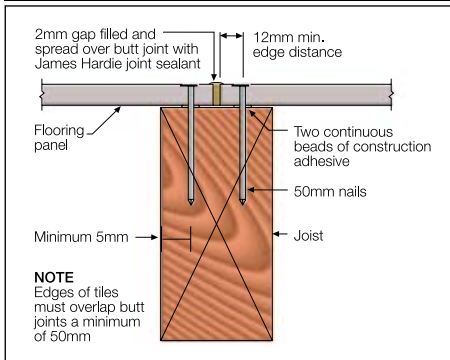


FIGURE 8 BUTT JOINT INTERNAL WET AREAS - TILE

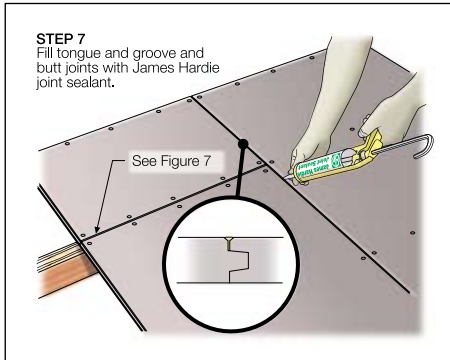


FIGURE 9 SEALING THE JOINTS IN WET AREAS - TILE

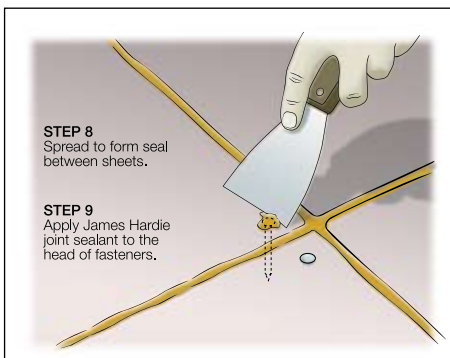


FIGURE 10 SEALING OVER FASTENERS - WET AREAS



FIGURE 11 CLEANING SURFACE FOR WET AREAS

NOTE: Avoid excessive foot traffic on the floor for at least 24 hours to allow sealant to set and dry out. Adverse weather conditions may increase this period to 48-72 hours. Protect the surface of the sheets from damage until final finish is applied.

CONTROL JOINTS

Tiled dry and wet areas only

Control joints in the floor sheets and tiles are required in dry and wet areas where floor dimensions exceed

5.4m in the long sheet direction and where existing structural joints are located. Position joints symmetrically about the centre of the floor as shown below. Additional control joints in the tiles may be required, refer to the current tile code for more information.

NOTE: No control joints are required in the flooring sheets when finishing with vinyl and carpet unless there is an existing structural joint or otherwise specified by relevant code and regulation.

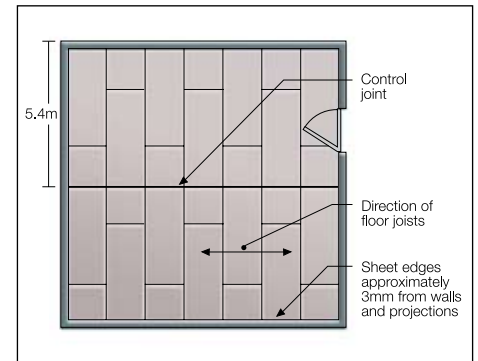


FIGURE 12 CONTROL JOINT LAYOUT

Also provide control joints where there are changes of direction, such as an L-shaped room, and at doorways where the tiled surface is carried through to the next room as shown.

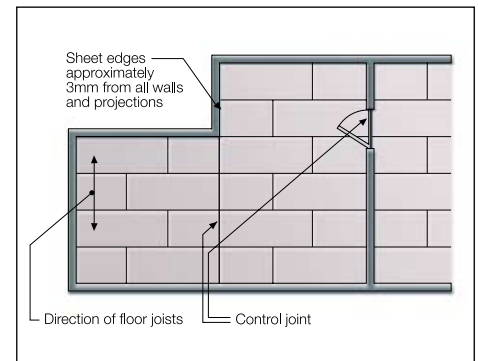


FIGURE 13 L-SHAPED ROOM

Leave a 5mm gap between the Scyon™ Secura™ interior sheets and tiles. Place a 10mm diameter polyethylene backing rod in the bottom of the joint and fill the joint with a suitable flexible sealant. All square edges must be fully supported as per Figure 14.

It is important that the control joints be carried through to the top of the floor surface i.e. they should not be covered by tiles or vinyl.

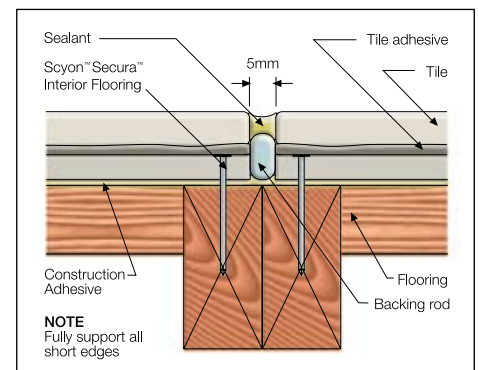


FIGURE 14 CONTROL JOINTS

FINISHES

Dry Areas

Vinyl, carpet and tiles may be laid over the Scyon™ Secura™ interior flooring.

Preparation

Where minor height variations (3mm or less) occur at butt joints, these may be levelled out by filling with Ardex's feather finish or equivalent. Ensure final finish is compatible with all components eg. Vinyl adhesive with levelling compound.

Sanding of the Scyon™ Secura™ interior flooring is not recommended.

Vinyl

NOTE: The sheets are supplied fully sealed

As the sheets are sealed, it is recommended that the vinyl adhesive is allowed to become tacky before laying down the vinyl sheets. Dunlop® Vinyl Adhesive, Polymer Vinyl Adhesive 265 from Polymer Engineering and Fullers® Perfect Putdown floor adhesive are water based and may be used. However, as the boards are sealed it is recommended to allow the adhesive to air dry longer before the vinyl is applied. Refer to a reputable vinyl manufacturer for suitable products and installation instructions.

Tiling

Tiles should be applied with proprietary adhesive that conform to Australian Standard AS 2358 and installed in accordance to AS3958.1 and to tile and adhesive manufacturer recommendations. Use a flexible tile adhesive recommended for internal wet area applications and compatible with all other materials.

It is recommended that tiles are laid from the control joint out and edges of tiles must overlap butt joints a minimum of 50mm.

Ensure the tile adhesive used is suitable and compatible with adjoining surfaces for the intended application.

Refer to the waterproofing and tile manufacture and relevant tiling codes for maximum tile control joint spacing, product suitability and compatibility including grout, tile adhesive, tile and waterproofing warranty and maintenance requirement.

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 AS 3740 and the BCA must be met. Once Scyon™ Secura™ interior flooring has been fixed in place, install floor tiles in accordance with tile manufacturer's specifications within 3 months of installation.

MAINTENANCE

Regular cleaning and maintenance of the finished surface, joints, junctions, penetrations etc must be carried out at regular intervals. Maintain waterproofing to meet the objectives of AS 3740 and as per the requirements of the relevant component manufacturer.

PRODUCT INFORMATION

General

Scyon™ Secura™ interior flooring is a reengineered concrete formulation utilising patented technology. The basic composition is Portland cement, ground sand, cellulose fibre, water and proprietary additives. Scyon™ Secura™ interior flooring is manufactured to AS/NZS 2908.2 'Cellulose-Cement Products Part 2: Flat Sheets'. Scyon™ Secura™ interior flooring is classified Type B, Category 2 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 mass

Based on equilibrium moisture content, Scyon™ Secura™ interior flooring is 24.5kg/m².

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.

Resistance to fire

Scyon™ Secura™ interior flooring is suitable where non-combustible materials are required in accordance with C1.12 and part 3.7.1.2 of the Building Code of Australia.

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:

Building Code of Australia Requirement	BCA Requirement	Documented Test Result
Critical Radiant Flux	Not less than 4.5 kW/m² (highest value in accordance with Table 1)	11.5 kW/m²
Maximum smoke development rate	750%.minutes	16%.minutes

WARRANTY

James Hardie Australia Pty Limited ("James Hardie") warrants to the first purchaser of the Product and the last purchaser prior to the installation of the Product for a period of 10 years from the date of purchase that Scyon™ Secura™ interior flooring (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. To obtain copies of such literature 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;
- (d) the project must be designed and constructed in strict compliance with all relevant provisions of the current Building Code of Australia, 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, regulations and standards.

For more information please Ask James Hardie™ on 13 11 03 or visit www.jameshardie.com.au

Ask James Hardie™
Call 13 11 03
www.jameshardie.com.au

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