

## 5438H JAMES HARDIE FIBRE CEMENT SHEET FLOORS

*Masterspec sections must be customised to suit the project being specified, by removing irrelevant information and adding project-specific information and selections.*

### 1. GENERAL

This section relates to the supply and installation of James Hardie HardiePanel™ Compressed Sheet and Tile and Slate Underlay, for:

- flooring underlay applications
- floor applications
- deck applications

*Modify or extend the above description to suit the project being specified.*

### 1.1 RELATED WORK

Refer to ~ for ~.

*Include cross references to other sections where these contain related work. For wet areas it is important to reference any waterproofing sections.*

### Documents

### 1.2 DOCUMENTS

Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

AS/NZS 2908.2 Cellulose-cement products - Flat sheet

NZS 3602 Timber and wood-based products for use in buildings

*Delete from the DOCUMENTS clause any document not cited. List any additional cited documents. The following are related documents and if referred to in the work section need to be added to the list of DOCUMENTS.*

NZBC E2/AS1 External moisture

NZBC E3/AS1 Internal moisture

NZBC G6/AS1 Airborne and impact sound

AS/NZS 1170 Structural design actions

NZS 1170 Structural design actions

NZS 3603 Timber Structures Standard

NZS 3604 Timber framed buildings

AS/NZS 4680 Hot-dip galvanized (zinc) coatings on fabricated ferrous articles

BRANZ BU 379 Preventing moisture problems in existing buildings

BRANZ BU 519 Fasteners selection

### 1.3 MANUFACTURER/SUPPLIER DOCUMENTS

James Hardie documents relating to this part of the work:

James Hardie Flooring Installation Manual

Manufacturer/supplier contact details

Company: James Hardie New Zealand Limited

Web: [www.jameshardie.co.nz](http://www.jameshardie.co.nz)

Telephone: Ask James Hardie™ on 0800 808 868

*It is important to ensure that all personnel on site have access to accurate, up to date technical information on the many products, materials and equipment used on a project. In most cases individual products are not used in isolation, but form part of a building process. Also a particular manufacturer's and/or supplier's requirements for handling, storage, preparation, installation, finishing and protection of their product can vary from what might be considered the norm. Access to technical information can help overcome this potential problem.*

### Warranties

### 1.4 WARRANTY - MANUFACTURER/SUPPLIER

Provide a material manufacturer/supplier warranty:

15 years: For James Hardie™ ~.  
(refer to James Hardie™ product warranty)

*Insert product selected, this may include; HardiePanel™ Compressed Sheet, Tile and Slate Underlay. Refer to James Hardie™ product warranty for details.*

15 year: For accessories supplied by James Hardie (refer to James Hardie™ product warranty)

From: Date of purchase

- Provide this warranty on the manufacturer's standard form.

Refer to the general section 1237 WARRANTIES for additional requirements.

*Modify or expand the clause to suit project requirements, options include:*

## **Requirements**

- 1.5 **NO SUBSTITUTIONS**  
Substitutions are not permitted to any specified system, or associated components and products.
- 1.6 **COMPLIANCE**  
Fibre cement sheets to AS/NZS 2908.2.

## **2. PRODUCTS**

### **Materials**

- 2.1 **FIBRE CEMENT SHEET FLOORING**  
James Hardie HardiePanel™ Compressed Sheet, high density autoclaved sheet, 18mm thick manufactured from treated cellulose fibre in sand and cement to AS/NZS 2908.2.
- 2.2 **TILE AND SLATE UNDERLAY**  
James Hardie Tile and Slate Underlay, pre-marked nail pattern 1800mm x 1200mm x 6mm, 1800mm x 900mm x 6mm or 1800mm x 600mm x 6mm sheet of treated cellulose fibre in sand and cement to AS/NZS 2908.2.

### **Components**

- 2.3 **UNDERLAY NAILS**  
Underlay: 25mm x 2.5mm annular threaded galvanized flathead nails from James Hardie
- 2.4 **FLOORING SCREWS**  
Timber framing: 316 stainless steel 50mm x 10g Compressed Sheet countersunk screws from James Hardie

### **Accessories - Underlay**

- 2.5 **UNDERLAY ADHESIVE**  
Underlay adhesive suitable for adhering Underlay to the floor substrate. Refer to adhesive manufacturers technical data and James Hardie technical specifications.  
*Recommended for tile applications over particle board floor substrates.*

### **Accessories - Decking**

- 2.6 **ALUMINIUM T SOCKET**  
Extruded aluminium T socket supplied by James Hardie.  
*Used for the rigid joint detail.*
- 2.7 **ADHESIVE**  
Sika Super Grip adhesive. Refer to James Hardie technical specifications.  
*Used for the rigid joint detail.*
- 2.8 **SEALANT**  
Flexible sealant with compatible PEF rod and primer. Refer to James Hardie technical specifications.
- 2.9 **BACKING STRIP**  
Inseal 3259, 50mm x 1.5mm strip. Refer to James Hardie technical specifications.  
*Used for the sealant and control joint details.*

- 2.10 ALUMINIUM DRIP MOULD  
Extruded aluminium angle to form drip edge, refer to details.

### 3. EXECUTION

#### Conditions

- 3.1 MOISTURE CONTENT  
Maximum moisture content of timber framing to [NZS 3602](#).
- 3.2 BUILDING  
Ensure building is weatherproof before Underlay work commences.
- 3.3 STORAGE  
Take delivery of products dry and undamaged on pallets, and keep on pallet. Protect edges and corners from damage and covered to keep dry until fixed.
- 3.4 HANDLING  
Avoid distortion and contact with potentially damaging surfaces. Carry sheets vertically. Do not drag sheets across each other, or across other materials. Protect edges, corners and surface finish from damage.
- 3.5 SUBSTRATE  
Do not commence work until the substrate is of the standard required by the relevant manufacturer's technical literature for the specified finish; plumb, level and in true alignment. Maximum moisture content of timber framing to [NZS 3602](#).

#### Application - underlays

- 3.6 PREPARATION  
Prepare existing flooring to be flat and not out of level by more than 1mm in 1 metre. Sand as required and remove dust, dirt and grease before fixing underlay
- 3.7 FIXING TILE UNDERLAY  
Fix to James Hardie technical specifications. Use adhesive and nailing when fixing over composite board floor substrates. Use nails for solid timber floors.  
*Modify to suit project.*
- 3.8 CONTROL JOINTS  
Form control joints where floor dimensions exceed 5 metres in one or both directions or where existing structural joints are located. Position joints symmetrical about the centre of the floor. Form control joints where there are changes in wall direction and at doorways where the tiled surface is carried through into the next room.

#### Application - flooring

- 3.9 SUPPORT FRAMING  
Ensure support framing is completed to James Hardie stated requirements.  
*Expand this basic clause to clarify particular project requirements for support or alignment of framing. The recommendations are floor joists at a maximum of 400mm centres for tiling applications and a maximum of 600mm centres for resilient forms of floor finish.*
- 3.10 SUPPORT EDGES AND JOINTS  
Fully support edges and joints of sheets.
- 3.11 FIXINGS  
Minimum 50mm from a corner, 12mm from the edge, 300mm centres along edges and on intermediate supports. Leave heads flush with surface for tiling, or countersink and epoxy filled flush for other surface finishes.  
*Modify this clause to suit the particular surface finish.*

3.12 **FIXING SHEETS**  
Fix HardiePanel™ Compressed Sheets to James Hardie requirements. Lay sheets in a staggered layout, long edge of sheet at right-angles to support and with sheets in square, true alignment and plane.

3.13 **CONTROL JOINTS**  
Form control joints where floor dimensions exceed 3.6 x 2.4 metres bay size in one or both directions or where existing structural joints are located. Position joints symmetrical about the centre of the floor. Form control joints where there are changes in wall direction and at doorways where the tiled surface is carried through into the next room.

#### **Application - decking**

3.14 **SUPPORT FRAMING**  
Ensure support framing is completed to James Hardie requirements.  
*Expand this basic clause to clarify particular project requirements for support or alignment of framing. The recommendations are floor joists at a maximum of 400mm centres for tiling applications and a maximum of 600mm centres for resilient forms of floor finish.*

3.15 **SUPPORT EDGES AND JOINTS**  
Fully support edges and joints of sheets.

3.16 **FIXINGS**  
Minimum 50mm from a corner, 12mm from the edge, 300mm centres along edges and on intermediate supports. Leave heads flush with surface for tiling, or countersink and epoxy filled flush for other surface finishes.  
*Modify this clause to suit the particular surface finish.*

3.17 **FIXING SHEETS**  
Fix HardiePanel™ Compressed Sheets to James Hardie requirements. Lay sheets in a non-staggered layout with all joints lined up, long edge of sheet at right-angles to support and with sheets in square, true alignment and plane.

3.18 **SEALANT JOINTS**  
Form sealant joints at every sheet joint to James Hardie technical specifications. Allow 6mm to 10mm gap between sheets, arrange set out so that gap is a consistent width. Apply Inseal strip to framing on joint line and pre-prime sheet edges before fixing sheets. Apply silicone sealant over backing rod.  
*Delete this clause if using rigid joints. Modify this clause to cover sealant application if it is applied after surface finishes. Ensure any deck finishing sections, including waterproofing and tiling, are coordinated with this clause.*

3.19 **RIGID JOINTS**  
Form rigid joints to James Hardie technical specifications. Apply Aluminium T Socket to framing on joint line and apply adhesive to socket and sheet edges before fixing sheets.  
*Delete this clause if using sealant joints. Ensure any deck finishing sections, including tiling, are coordinated with this clause.*

3.20 **CONTROL JOINTS WITH RIGID JOINTS**  
Form control joints to form a maximum of 3600mm x 2400mm bay size or where existing structural joints are located. Position joints symmetrical. Form control joints to James Hardie technical specifications.  
*Delete this clause if using sealant joints. Modify this clause to cover sealant application if it is applied after surface finishes. Ensure any deck finishing sections, including waterproofing and tiling, are coordinated with this clause.*

3.21 **DRIP EDGE**  
Form a drip edge as detailed.

#### **Completion**

3.22 **REPLACE**  
Replace damaged or marked elements.

- 3.23 CLEAN  
Clean adjoining surfaces and fittings of spots, marks, dust and droppings.
- 3.24 LEAVE  
Leave work to the standard required by following procedures.
- 3.25 REMOVE  
Remove debris, unused materials and components from the site.

#### 4. SELECTIONS

##### Underlays

- 4.1 TILE AND SLATE UNDERLAY  
Location: ~  
Type: James Hardie Tile and Slate Underlay  
Thickness: 6mm
- 4.2 UNDERLAY ADHESIVE  
Location: ~  
Type: ~  
*Recommended for tile applications and composite board floor substrate.*

##### Floors

- 4.3 COMPRESSED SHEET FLOOR  
Location: ~  
Type: James Hardie HardiePanel™ Compressed Sheet  
Thickness: 18mm  
Screws: ~  
*Specify whether fasteners are to be driven below the surface or driven flush.*

##### Decks

- 4.4 COMPRESSED SHEET DECK  
Location: ~  
Type: James Hardie HardiePanel™ Compressed Sheet  
Thickness: 18mm  
Jointing method: ~  
Screws: ~  
*Joint options: Sealant joints, Rigid joints (Sealant type/colour may need to be stated here).  
Screw options: Screws driven below the surface, Screws driven flush.*