



# Best Practice Guide

Working safely with fibre cement products

**Australia** June 2020

**Make sure your information is up to date.**

When specifying or installing James Hardie™ products, ensure that you have the current technical information and guides. If in doubt, or you need more information, visit [www.jameshardie.com.au](http://www.jameshardie.com.au) or Ask James Hardie™ on 13 11 03.

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

James Hardie products contain sand, a source of respirable crystalline silica. **May cause cancer if dust from product is inhaled. Causes damage to lungs and respiratory system through prolonged or repeated inhalation of dust from product.**

Intact fibre cement products are not expected to result in any adverse toxic effects. The hazard associated with fibre cement arises from the respirable crystalline silica present in dust generated by activities such as cutting, rebating, drilling, routing, sawing, crushing, or otherwise abrading fibre cement, and when cleaning up, disposing of or moving dust.

When doing any of these activities in a manner that generates dust, follow James Hardie instructions and best practices to reduce or limit the release of dust, warn others in the area and consider rotating personnel across the cutting task to further limit respirable silica exposure.

If using a dust mask or respirator, use an AS/NZS1716 P1 filter and refer to Australian/New Zealand Standard 1715:2009 Selection, Use and Maintenance of Respiratory Protective Equipment for more extensive guidance and more options for selecting respirators for workplaces. For further information, refer to our installation instructions and Safety Data Sheets available at [www.jameshardie.com.au](http://www.jameshardie.com.au).

**FAILURE TO ADHERE TO OUR WARNINGS,  
SAFETY DATA SHEETS, AND INSTALLATION  
INSTRUCTIONS MAY LEAD TO SERIOUS  
PERSONAL INJURY OR DEATH.**

# Best practice

## Working safely with fibre cement products

To work safely, you need to understand the hazards and know how to minimise the risks.

At James Hardie we believe that safety should be of paramount importance to everyone. We are committed to the safe use of our products.

This guide is a straightforward approach to job site safety through the use of best practices with James Hardie™ products.

It's good to remember that 'Best Practice' is much more than simply a 'strong suggestion'. It is a work ethic that if followed has tangible benefits that will positively influence your quality of work and wellbeing, leading to greater efficiency, and importantly, improved work site safety.



### **Best Practice – A three stage approach**

- 1 Silica Awareness
- 2 Best Practice
- 3 Tools

Silica is an occupational hazard for the whole industry but can be managed by adopting best practices, including use of appropriate tooling, implementation of appropriate systems and ensuring correct use of fitted PPE.



# 1. Silica awareness

## What is Silica?

Commonly known as sand or quartz, silica is the second most common mineral on earth and is found in many common building products.

Silica is commonly found in building products like concrete, bricks, grout, wallboard, ceramic tiles, glass, dirt and all fibre cement material such as James Hardie™ manufactured building products. It would almost be impossible for people not to come into contact with silica every day.

## The Hazard

### The capability to cause harm

Silica when it's intact is harmless. However when it is cut, drilled or otherwise abraded silica is released as fine particles that can be inhaled deep into the lungs.

Prolonged or repeated inhalation of respirable crystalline silica dust can cause damage to the lungs and respiratory system including a potentially fatal lung disease called silicosis. The inhalation of respirable silica can also cause cancer.

Some studies suggest smoking may increase these risks.

## The Risk

### The likelihood of the hazard causing harm

James Hardie best practice recommendations are designed to minimise the risk of harmful exposure to respirable crystalline silica when installing fibre cement products and enable users to comply with applicable government safety standards.



## Risk Factors

- Exposure concentration
- Duration and frequency of exposure
- External health factors

Silica is the second most common mineral on earth and is found in many common building products.

## 2. Best Practice

James Hardie believes that safety is of paramount importance to everyone and is committed to safe use of our products and safety of your work site.

Best practice information on how to work safely with James Hardie™ products can be found in our installation instructions and technical specifications or at [www.jameshardie.com.au](http://www.jameshardie.com.au). You should also obtain and read a copy of our fibre cement SDS available at [www.jameshardie.com.au](http://www.jameshardie.com.au).

If you still have concerns about silica exposure levels, you should always consult a qualified industrial hygienist. A directory can be found at [www.aioh.org.au](http://www.aioh.org.au).

### Sanding, rebating, drilling, cutting or other machining

James Hardie encourages you to always minimise dust exposures. Therefore, when sanding, rebating, cutting, drilling or carrying out other machining of fibre cement products, as well as following our recommended cutting instructions, you should always wear a properly fitted P1 or P2 respirator and warn others in the immediate area.

#### Cutting indoors

Cut using only score and snap, hand guillotine or fibreshears (manual, electric or pneumatic).

#### Cutting outdoors

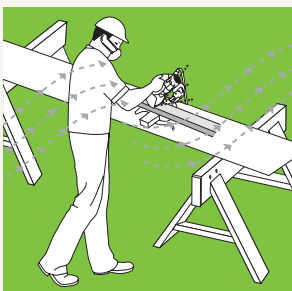
Position cutting station so that wind will blow dust away from user or others working in the area. Use one of the following methods based on the required cutting rate:

**BEST**

- Villaboard knife™
- Hand guillotine
- Fibreshear

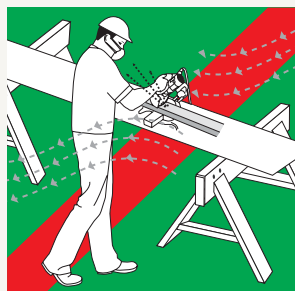
**GOOD**

- Dust-reducing circular saw equipped with HardieBlade™ Saw Blade connected to a M class or higher vacuum.



#### Correct

Dust blown away from user breathing zone



#### Wrong

Dust blown into user breathing zone

### Handling and storage of James Hardie™ product

James Hardie products are robust and durable once installed. It is important to keep the product dry in storage and during installation.

If product becomes saturated prior to installation the following can occur:

- **SHRINKAGE** at joints.
- **STAINING** a deposit of soluble salts, usually white in colour.
- **DIFFICULTY** in handling due to the increased weight and added flexibility once saturated.

James Hardie is not responsible for damage due to improper storage and handling.

#### Storage

Product should be:

- **STORED** in their original packaging in a covered area when possible.
- **COVERED** on a pallet and must not be stored directly on the ground (figure 1).
- **PROTECTED** with a waterproof covering, if storage outside is unavoidable (figure 2).
- **STORED** flat and above ground (figure 1).

#### Handling

A few simple techniques make handling of James Hardie materials a breeze:

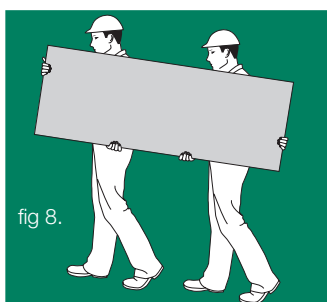
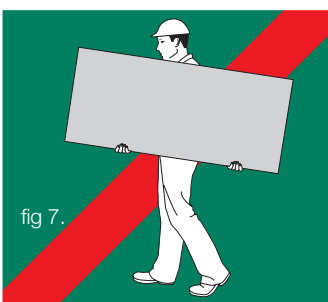
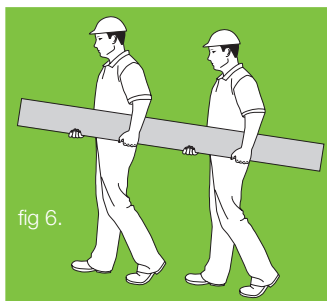
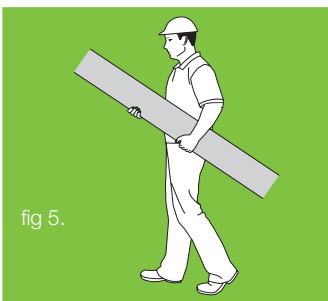
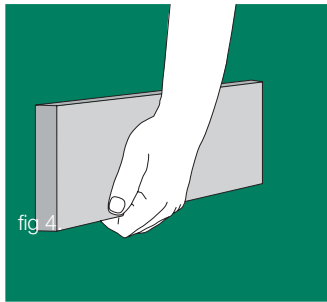
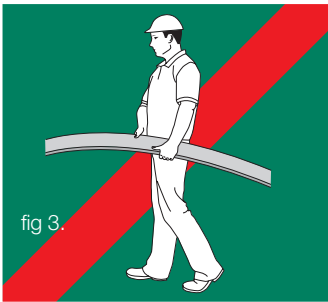
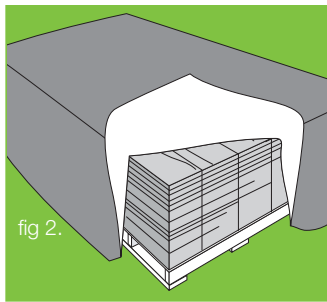
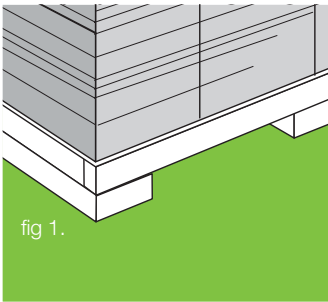
##### FOR PLANKED PRODUCTS

- Do not lift planked products flat and in the middle (figure 3).
- Carry the products on edge (figure 4).
- If only one person is carrying the product, hold it in the middle and spread arms apart to better support the product (figure 5).
- If two people are carrying the plank, hold it near each end and on edge (figure 6).

##### FOR PANEL PRODUCTS

- Carry with two people (figure 8).
- Do not hold near each end and on edge.
- Exercise care when handling panel products to avoid damaging the corner.

James Hardie is committed to safe use of its products and safety of your work site.



## Important Notes

- For maximum protection (lowest respirable dust exposure), James Hardie recommends always using “Best” level cutting methods where feasible.
- NEVER use a power saw indoors
- NEVER use a circular saw blade that does not carry the HardieBlade™ logo.
- NEVER dry sweep — use wet suppression or a M or higher class vacuum.
- NEVER use grinders without appropriate respiratory protection (e.g. minimum P1 or P2 respirator).
- ALWAYS follow tool manufacturer’s safety recommendations.
- P1 and P2 respirators must be used in conjunction with cutting practices to further reduce dust exposure.





James Hardie™ has been actively working with tool and blade manufacturers to develop tools specifically to minimise dust exposure.



### Hardieblade™ Saw Blade

- The only blade recommended by James Hardie™.
- NEVER USE A CARBIDE FRAMING BLADE OR CONTINUOUS RIM DIAMOND BLADE.
- HardieBlade™ Saw Blade generates larger dust particles and reduces the risk of respirable silica.
- The 185mm diamond tip HardieBlade™ Saw Blade fits a dust reducing 185mm circular saw and the Makita LS0714 190mm dual slide compound mitre saw. Always use circular saws outdoors and in a well ventilated area.



### Makita 5057KB 185mm circular saw

- Easily attaches to tool start vacuum with M class or higher vacuum to further reduce dust exposure.
- Remote guard lever allows for plunge cutting.
- Fully enclosed upper guard.
- Rigid aluminium base provides greater stability and accuracy.
- 60mm cutting depth capacity.
- 90° to 45° base adjustment.
- Easy emptying dust collector.



### Hikoki C7YA 185mm circular saw

- Easily attaches to a M class or higher vacuum to further reduce dust exposure.
- Dust reducing operation for user comfort and safety.
- Powerful industrial 1,400 watt motor.
- Lightweight and well balanced.
- Specifically built for cutting fibre cement sheet.
- Dust deflector directs dust away from operator.



## Makita LSO714 190mm dual slide compound mitre saw

- Easily attaches to a M class or higher vacuum to further reduce dust exposure.
- Double slide action.
- Huge 300mm width of cut.
- Geared drive system.
- Depth stop adjustments for trenching.
- Removable lock off button for safety and security.
- Large stable base.



## Makita VC3012M wet/dry M-class extraction system

- Unique impulse filter cleaning system allows filter to be cleaned efficiently without stopping, increasing productivity and filter life.
- Capable of both wet and dry applications.
- Easily converts from dust extraction to a powerful industrial vacuum cleaner.
- Automatic on/off system allows the unit to be switched on and off automatically from your connected power tool.
- Solid, robust and compact design suited for job site requirements.



## Fibreshear cutting tool

- Heavy-duty cutting tool is a quick and efficient way to cut a range of James Hardie™ building products.
- Effortlessly cuts in straight or curved lines.
- For effective cutting of fibre cement up to 9mm thickness.



## Hitachi easy bevel 797006/8912 125mm angle grinder

- An efficient tool for rebating the cut edges of Villaboard™ lining and HardieTex™ sheets.
- Dust is collected via the dust port and must connect to a M class or higher vacuum.
- Wear P1 or P2 respirator or appropriate respirator when using Easybevel.



## Guillotine

- For effective cutting of fibre cement up to 9mm thickness.



## Villaboard™ knife

- A tungsten-tipped knife for scoring cement sheets.

### Note:

1. Ensure flow rate is maintained in accordance with the manufacturer guidance prior to commencing work and manually clean/replace filters if alarm/light indicates.
2. Use a hose diameter of 32 to 38mm to maintain adequate flow rate at normal operation.







**For information and advice  
call 13 11 03 | [jameshardie.com.au](https://jameshardie.com.au)**

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