

A modern, two-story house with a minimalist design, featuring large windows and a central entrance. The house is illuminated from within, and the surrounding area is dark, suggesting nighttime. The text is overlaid on the central part of the image.

# Respirable Crystalline Silica (RCS) Dust Management

New South Wales

CORAL HOMES

# What is Silica Dust?

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Crystalline silica is found in sand, stone, concrete and mortar. It is used to make a variety of products, including benchtops, bricks, tiles, and some plastics. When workers cut, crush, drill, polish, saw, or grind products containing silica, very fine dust particles known as Respirable Crystalline Silica (RCS) are produced. When RCS is inhaled on a regular basis, it can cause serious illness or disease including silicosis.

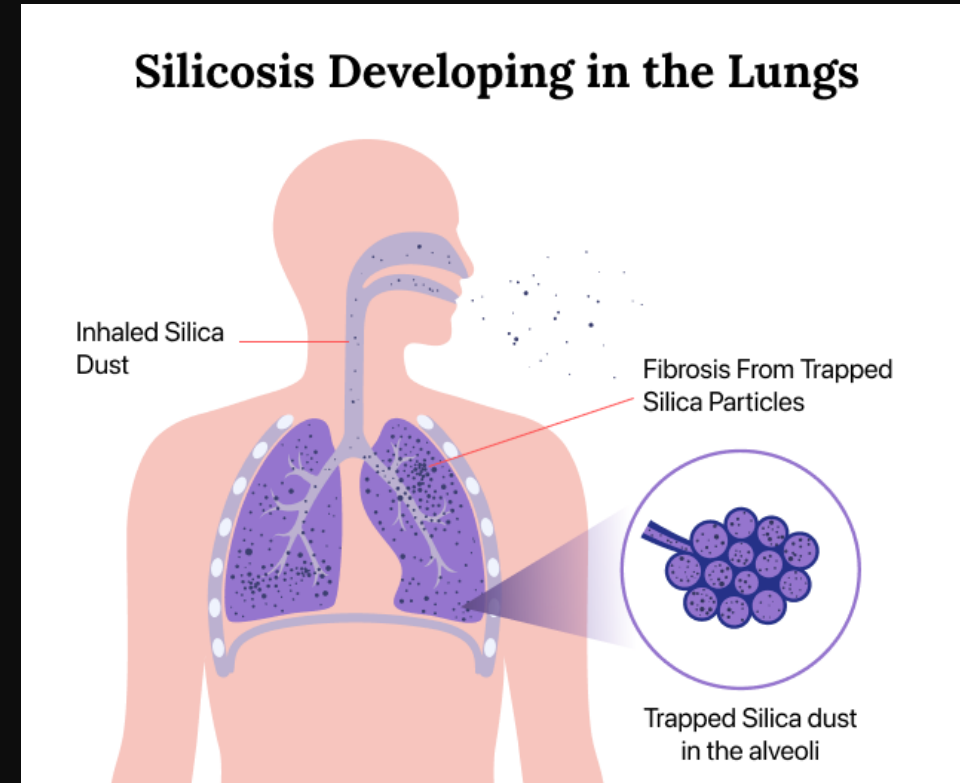


# Silicosis

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Silicosis is a chronic, deadly lung disease that is caused by the inhalation of silica particles. When these materials are cut, ground, mixed, swept or polished, tiny respirable silica particles not visible to the naked eye may be inhaled deep into the lungs, causing scarring and fibroids. These fibroids make it increasingly difficult for a sufferer to breathe.

Workers who have developed silicosis can experience severe shortness of breath and become easily exhausted, as well as suffer from secondary silicosis complications such as lung cancer, emphysema, and kidney damage.



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**Remember:** Silica dust is not always visible, and workers cannot count on dust visibility as a risk indicator.

# Legal Requirements

Workers and PCBUs must follow the legislative requirements to manage working with silica dust risks on a construction worksite. Inspectors can issue prohibition notices to stop you from doing work that generates high levels of silica dust. If you don't comply with a prohibition notice, PCBUs (employers) can face penalties up to \$100,000. Individuals may also receive fines for not meeting their obligations under WHS laws.

Legislative resources:

- SafeWork NSW – [Crystalline Silica](#)
- Crystalline Silica - [Technical Fact Sheet](#)
- [Work Health and Safety Regulation 2017 – NSW](#)
- [Work Health and Safety Act 2011](#)



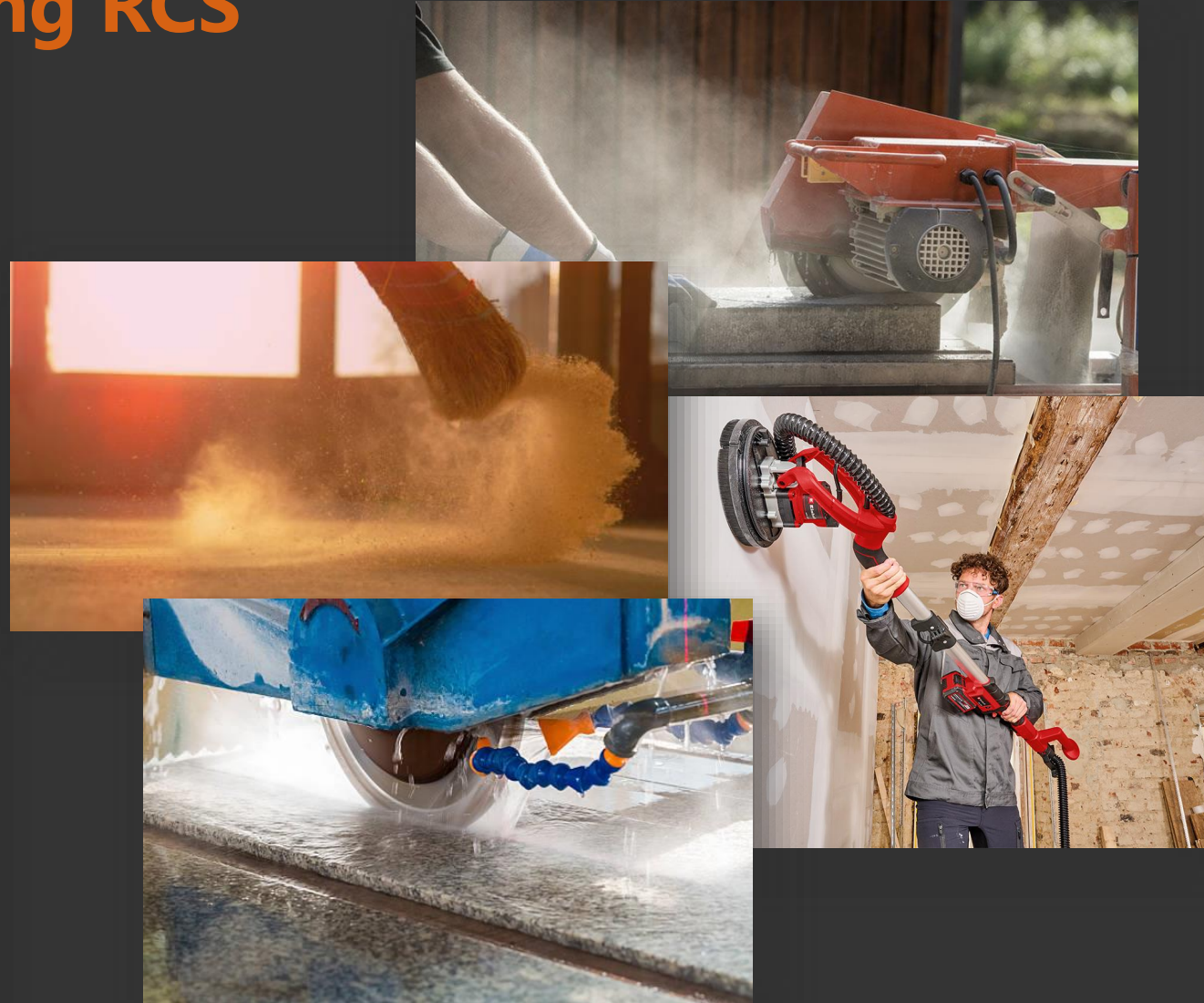
# Tasks generating or disturbing RCS

Respirable crystalline silica (RCS) can be generated and released into the air during tasks that involve high-energy processing, such as:

- Cutting
- Sawing
- Grinding
- Sanding
- Drilling
- Sweeping

The best way to prevent being at risk of secondary exposure is to choose the right controls to prevent or minimise the release of RCS into the air.

The following slides are prescriptive controls for common tasks that are a minimum requirement on Coral Homes sites, however, all PCBUs must ensure that they have sufficient controls in their SWMS for the tasks being undertaken by their workers.



# Stationary masonry saw brick & concrete chasing / cutting

**Wet cutting control method:**  
Only use a saw with an integrated water delivery system that continuously feeds water to the blade.

The saw must be operated and maintained in accordance with the manufacturer’s instructions to minimise dust emissions.

- **Check** hoses are securely connected and not cracked or broken.
- **Ensure** water flows at the rates recommended by the manufacturer. Water flow rates must be sufficient to minimize the release of visible dust.
- **Adjust** nozzles so water goes to the blade and wets the cutting area.
- **Rinse** or replace water filters at recommended intervals.
- **Replace** basin water when it gets gritty or begins to silt up with dust.
- **Inspect** the saw blade before use ensuring it is in good condition and does not show excessive wear.



Equipment/task	Indoor RPE requirement	Outdoor RPE requirement
Stationary masonry saw brick cutting	Nil	Nil
Concrete chasing / cutting	P2 half mask is required even with dust suppression measures	Nil

This table nominates any additional RPE (Respiratory Protective Equipment – i.e. face mask) that is required.

# Cutting of fibro products



**Option 1**  
Use a saw equipped with a commercially available dust collection system.



**Option 2**  
Use electric or manual fibro shears or score and snap.

Equipment/task	Indoor RPE requirement	Outdoor RPE requirement
Option 1	P2 half mask is required even with dust extraction measures	Nil
Option 2	Nil	Nil

# Sanding of plasterboard

Only use a power sander equipped with a commercially available shroud and dust collection system. A P2 half mask must also be worn to prevent inhalation of dust particles and suitable eye protection.



Equipment/task	Indoor RPE requirement	Outdoor RPE requirement
Plasterboard sanding	P2 Half Mask required	P2 Half Mask Required

# Tile cutting

Option 1: Use a grinder equipped with an integrated water delivery system that continuously feeds water to the grinding surface. While not mandatory, it is recommended to still wear a P2 half mask while using this method.

Option 2: Use a grinder equipped with a commercially available shroud and dust collection system.

Equipment/task	Indoor RPE requirement	Outdoor RPE requirement
Tile Cutting: Option 1	P2 Half Mask required	Nil
Tile Cutting: Option 2	P2 Half Mask required	P2 Half Mask Required



# Dry Sweeping

Dry sweeping can only be carried out when a P2 half mask respirator is being worn by ALL workers inside the house. The person undertaking sweeping must ensure everyone on site is wearing a mask. If other workers are not wearing a mask, dry sweeping is not permitted.

The following safe cleaning methods should be implemented:

- wet sweeping
- low-pressure water (e.g., hosing down/wiping/mopping of surfaces)
- vacuuming up dust and debris containing silica using an M or H-class vacuum cleaner.

Equipment/task	Indoor RPE requirement	Outdoor RPE requirement
Dry Sweeping	P2 Half Mask required	P2 Half Mask Required



**THE FOLLOWING IS PROHIBITED ON CORAL HOMES SITES:**

- DO NOT use compressed air or blowers inside as it can make dust containing RCS airborne.
- DO NOT dry sweep without a mask both indoors and outdoors.

# Concrete drilling and clean out of drilled holes

- Operate and maintain drilling tools in accordance with manufacturer's instructions to minimise dust emissions.
- Wear safety goggles when there is a risk of dust contact or splashing to the eyes.
- Wear a P2 half Mask both indoors and outdoors.

Equipment/task	Indoor RPE requirement	Outdoor RPE requirement
Drilling of concrete and cleaning out of drilled holes in concrete with compressed air	P2 Half Mask required	P2 Half Mask Required



# Minor works

Minor works such as scraping, chipping, touch-up sanding, even when only performed for a short duration, still require a P2 half mask to be worn when indoors.

Equipment/task	Indoor RPE requirement	Outdoor RPE requirement
Minor works	P2 Half Mask required	Nil



# Points to remember:

- Dry drilling, cutting, grinding and sanding of **engineered stone** is strictly prohibited on Coral Homes construction sites.
- Follow the right controls to prevent or minimise the release of RCS into the air.
- Wear a tightly fitted P2 Half Mask Respirator where required. When using a P2 Mask you must be clean shaven, otherwise a full head respirator should be worn.
- When dry sweeping indoors or outdoors, everyone on site must wear a mask.
- Educate yourself and others on the dangers of working with silica in the workplace.





**Thank You**

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