Caesarstone® Australia – Silicosis Response

At Caesarstone®, we are committed to sustainability through continued innovation of our products and greener production processes. We are focused on a value chain built on environmental, health, and safety practices.

As Australia's leading quartz surface supplier, we are setting the safety standard for the entire industry by working closely with fabricators and promoting innovative solutions, products, and programs to create a safer work environment for all.

Silica is one of the most common compounds on earth and used by many industries including concrete, bricks, tunneling, sandstone, granite, and porcelain. Caesarstone® quartz surfaces are made of minerals that include crystalline silica, such as silica sand and quartz.

- Silicosis is 100% preventable – there is no dispute that quartz surfaces can be handled safely, when working with correct safety measures in place, as specified in Caesarstone® Professional guides.
- Caesarstone® continues to educate fabricators with the Master of Stone program - an innovative, unique, online learning platform, dedicated to making safety working guidelines accessible to fabricators worldwide.
- In 2022 Caesarstone® introduced advanced technology to produce low silica quartz products and launched a new range of porcelain products.
- We believe that Licensing of Fabricators (Victoria has commenced) and ongoing regulation improvement are important steps towards a safer industry. Therefore, we continue to engage with all forms of government and stakeholders to take these steps as soon as possible.

What is silicosis?

Silicosis is an occupational lung disease, known for more than a century. It is mainly caused by inhaling respirable crystalline silica dust (RCS). Silica is a mineral commonly found in certain types of rock or soil. RCS dust is created when cutting, drilling, grinding, or polishing certain types of stone, rock, sand, and clay. Over time, inhaling RCS dust, without using protective health and safety measures required by law, causes inflammation, which leads to scarring of the lung tissue. Silicosis is an incurable, progressively disabling and sometimes fatal lung disease. Although there is currently no cure for silicosis, there are management strategies that may slow progression and help reduce symptoms.

Silicosis and other diseases associated with RCS are 100% preventable with the correct safety measures, such as wet cutting in place and the use of effective respiratory protection measures.

Where is silica found?

Silica is one of the most abundant minerals found in the earth's crust and is used in many products across a variety of industries and workplaces. Safe Work Australia notes that while engineered stone can contain up to 97% silica, natural sandstone (encountered in tunneling and construction) contains 70-95%, granite contains 20-45%, slate contains 25-40% and concrete contains 20-40% and most porcelain products contain a percentage of silica.

In its 'amorphous' (solid) form – such as in engineered stone benchtops once installed in the home – silica poses no hazards and is absolutely safe.

Crystalline silica poses a hazard to health by unprotected and uncontrolled ongoing occupational exposure to respirable crystalline silica dust, without the protective health and safety measures required by law.

Examples of work activities that can generate respirable crystalline silica dust include:

- Fabrication and installation of engineered stone
- Excavation, earth moving, and drilling plant operations
- Mining, quarrying, and mineral ore-treating processes
- Clay and stone processing machine operations
- Paving and surfacing
- Tunnelling
- Brick, concrete, or stone cutting
- Angle grinding, jackhammering, and chiseling of concrete or masonry

Sources: Safe Work Australia[1], Worksafe ACT[2]

Can silica be handled safely?

Yes. While the risk of RCS is well documented and understood, it is acknowledged that all silica-containing materials can be handled safely if proper procedures are followed, and proper tools are used – in workshops and on-site. This extends to the fabrication of engineered stone; Dr Graeme Edwards, a senior consulting physician in occupational and environmental medicine and member of the National Dust Diseases Taskforce, has provided expert evidence that 'The product can be fabricated safely'[3].

Existing safe handling tools and procedures include:

- Bans on dry cutting
- Water-integrated tools for wet-cutting
- High-quality dust extraction, filtering, and monitoring
- Ventilation and filtration
- Using appropriate respiratory protection - pressurised and non-pressurised masks

1 https://www.safeworkaustralia.gov.au/safety-topic/hazards/crystalline-silica-and-silicosis
2 https://www.worksafe.act.gov.au/__data/assets/pdf_file/0015/2030613/WorkSafe-ACT-Silica-Factsheet-Concrete-July-2022.pdf
3 https://www.parliament.nsw.gov.au/lcdocs/transcripts/2780/Transcript%20-%20CORRECTED%20-%20Dust%20Diseases%202021%20-%2016%20February%202022.pdf

- Equipment with integrated dust collectors

To eliminate the risk of silicosis, these safety measures should apply to the handling of all silica-containing materials. The same safety measures used to cut, and polish engineered stone must apply to cutting or grinding sandstone or any lower percentage silica stone, such as granite, marble, and porcelain, on the basis that workers should not be exposed to dust containing any level of RCS.

The employer, duty Holder, or PCBU are responsible for providing their workers with all the information, tools, and safety measures required to protect them from the dangers of exposure to RCS dust. The workers are responsible for fully implementing the safety instructions. By the joint effort of the employer and workers, the workplace can become a safe environment for everyone.

Caesarstone® advises its customers to execute all cutting, grinding, and shaping of engineered stone slabs in their workshops, where there are safety controls in place. While slabs can be handled safely at installation sites when proper safety equipment is used and procedures are followed, if significant cutting is required the slabs should be returned to the workshop for re-cutting.

What is Caesarstone® doing about silicosis?

Caesarstone® has consistently taken action to promote a safe engineered stone industry since it began operating in Australia. These efforts have included clear product handling and safety guidelines, as well as ongoing education and training. Caesarstone® and other engineered stone suppliers are also actively developing products that contain a lower percentage of silica.

Caesarstone's guidance and training include Caesarstone Fabrication & Installation Guide, Good Practice Guide - Steps to avoid health hazards related to crystalline silica dust, safety data sheets for all our products, and a safety video for the industry.

We also encourage all fabricators to register with our "Master of Stone online Training Centre", an innovative, unique, online learning platform, dedicated to making information and working guidelines accessible to fabricators worldwide, with a focus on health and safety in the workplace and creating a space free of the dangers of potentially hazardous respirable crystalline silica dust[4]. To date, 1,400 Australian fabricators have completed the Master of Stone course.

Caesarstone® has engaged extensively with the government, work safety bodies, and industry to help foster a better understanding of the issues related to RCS and to promote safer working conditions. This includes engagement with the National Dust Disease Taskforce, engagement with WorkSafe Victoria in relation to that state's licensing scheme, partnering with iCare to promote healthy industry workers and the importance of health monitoring, contributing best-practice advice to the NSW Code of Practice: Managing the risks of RCS from engineered stone in the workplace, and involvement in NSW parliamentary inquiries into silicosis and the NSW Dust Diseases Scheme.

[4] https://mos.caesarstone.com.au/home-page/

Efforts to improve safety standards have been hampered by industry-wide non-compliance with product handling requirements, a lack of regulatory enforcement, and the absence of a national standard.

Caesarstone® believes the solution to this problem is the introduction of uniform national regulations and safety guidelines and a mandatory licensing scheme in each State and Territory, modelled on the Victorian scheme, all backed by rigorous auditing and enforcement by well-resourced regulators.

Caesarstone® continues to advocate for a nationwide licensing scheme for all parties handling silica-containing materials and is working with the government, work safety bodies, and industry on the development of regulations and additional measures to improve worker safety.

What safety measures are already in place?

At present, every State and Territory applies the model WHS standards but has different rules and regulations to address the occupational risks of silica dust. There are some measures common across most jurisdictions:

- **Air monitoring and RCS workplace exposure standards:** All jurisdictions regulate employers' air monitoring requirements. Nationwide, the WES for silica dust is currently set at 0.05mg/m3.
- **Dry-cutting bans:** Most jurisdictions have banned uncontrolled dry-cutting of stone in workshops and onsite.
- **Health monitoring:** Employers must provide health monitoring for workers if they are using, handling, generating, or storing crystalline silica and there is a significant risk to their health because of exposure to crystalline silica.
- **The Victorian licensing scheme:** In 2021, Victoria implemented regulations to introduce Australia's first licensing regime for engineered stone, make permanent a prohibition on uncontrolled dry-cutting, and add additional regulatory oversight of high-risk crystalline silica work across all industries. Caesarstone® believes the Victorian scheme should be the model for a nationwide scheme, provided it applies to all materials containing silica and not just engineered stone with 40 percent or more silica.

What product Innovations has Caesarstone® introduced to reduce silica content?

- Caesarstone® is committed to transitioning our portfolio to **low-silica** products.
- Caesarstone® has made significant investments in research and development resulting in the introduction of a range of low silica products, ranging from less than 10% to 50%.
- It is our intention to continue to transition any high silica product lines to substantially lower silica alternatives leading to at least 80% of our range as low silica by the end of 2024.
- In addition to our commitment to low silica Quartz, we introduced our **Porcelain collection** that contains less than 20% silica content. Caesarstone® Porcelain offers a new point of view. It marks a leap in technology, functionality, and design, delivering a high degree of durability and strength for added safety and peace of mind, and is suitable for both indoor and outdoor environments.

Why not just ban engineered stone?

Successive government committees and inquiries, including the National Dust Diseases Taskforce, have stopped short of banning engineered stone, saying instead that a ban should be considered in July 2024 only if 'there is no measurable and acceptable improvement in regulatory compliance rates for the engineered stone sector' and 'evidence indicates preventative measures are not effectively protecting those working with engineered stone from silicosis and silica-associated diseases'.

A ban on engineered stone would not solve the issue of silicosis. There is no logic in banning one product that must be handled in the same manner as all similar products, with almost half of silicosis cases reported in the year to 30 June 2021 occurring in industries outside engineered stone. This means that even if the engineered stone is banned, the presence of silica in all substitute materials (except wood) and in industries such as tunneling and construction means workers will continue to face the risk of silicosis.

Kate Cole, President, Australian Institute of Occupational Hygienists, supports a ban on engineered stone but says "banning manufactured or engineered stone does not solve the problem of silicosis in (NSW)"[5].

Where can I learn more about silicosis?

The best independent sources of information are Safe Work Australia and the State work safety bodies. The following links provide useful information on silicosis and the safe handling of silica-containing materials.

About silicosis

- https://www.safeworkaustralia.gov.au/safety-topic/hazards/crystalline-silica-and-silicosis
- https://lungfoundation.com.au/patients-carers/conditions/occupational-lung-disease/silicosis/

Working with silica

- https://www.safeworkaustralia.gov.au/doc/working-silica-and-silica-containing-products/english
- https://www.safeworkaustralia.gov.au/safety-topic/hazards/crystalline-silica-and-silicosis/choosing-and-implementing-control-measures-silica-dust
- https://www.safeworkaustralia.gov.au/doc/health-monitoring-crystalline-silica

Codes of practice

- https://www.safeworkaustralia.gov.au/doc/model-code-practice-managing-risks-respirable-crystalline-silica-engineered-stone-workplace
- https://www.safework.nsw.gov.au/resource-library/list-of-all-codes-of-practice/codes-of-practice/engineered-stone-code-of-practice

[5] https://www.parliament.nsw.gov.au/lcdocs/transcripts/2780/Transcript%20-%20CORRECTED%20-%20Dust%20Diseases%202021%20-%2016%20February%202022.pdf