Edstein

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Engineered stone information sheet

What is silica?

Silica (silicon dioxide), is an oxide of silicon with the chemical formula SiO_2, commonly found in nature as quartz. In many parts of the world, silica is the major constituent of sand. Silica is abundant as it is commonly found in nature as quartz which makes up over 10% of the earth's crust.

95% of the silica used worldwide is used for concrete but silica is also the primary ingredient in the production of most glass. Silica is found in almost all building materials from tiles to concrete to bricks and also natural stones and granites.

Quartz is one of the hardest and most stable and abundant minerals on earth with a MOH's hardness rating of 7 making it ideal for use in kitchen benchtops.

Brief history of use in engineered stone benchtops

Engineered stone has been produced and sold around the world since the early 1990s and has been a popular kitchen benchtop material in Australia since the early 2000s. Silicosis was recognised by the industry as a potential hazard since its inception and safe work protocols have existed for all stone materials during their period of use. Most engineered stone has typically had a 90-95% quartz (silica) content though since 2020 suppliers have been moving to produce colours that contain between 5-40% silica content. The silica content in these materials has been replaced by other minerals such as feldspar which also has very good properties for high quality benchtops but does not produce crystalline silica when ground or cut.

Edstein working with engineered stone

Edstein is a leading fabricator of stone within Australia, committed to providing a safe and sustainable environment, not only to our employees and contractors but to our clients and the greater community.

We take immense pride in leading the industry, with SafeWork NSW partnering with Edstein to raise silica awareness. SafeWork filmed their series of silica training and awareness videos at our manufacturing facility.

Over the years, as awareness and technology has involved, Edstein has always been proactive with heavily investing in the latest and safest equipment, not only in machinery

but in PPE, training, private practice health monitoring, air monitoring and building new facilities to ensure the safety of our team.

Edstein shares the same concerns about the health and safety of the fabrication of engineered stone, as highlighted within the industry and media, and has long been an advocate to improve and sustain our industry.

Edstein fabricates and provides the installation of stone, including engineered stone. We endeavor to ensure a systematic approach to managing health and safety risks associated with crystalline silica. Manufacturing safely within a controlled environment, adhering to the strictest of workplace practices, including machine wet-cutting to suppress dust. The finished product of engineered stone is completely safe to transport and once installed poses no risk to the end user

Engineered stone can be cut safely, provided the right hierarchy controls, equipment and procedures are followed.

All Edstein products with potential risk are identified within our Workplace Health & Safety Management System and our Respirable Crystalline Silica Management Plan. Both of which are available on request, and we encourage our clients to visit our facility to understand how dust suppression and safety are a priority of our business.

Edstein are confident these initiatives, coupled with the elimination of any remaining unsafe cutting practices, will provide an even greater level of confidence to our community, and offer peace of mind to customers who choose stone as their preferred product of choice.

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