

atlasPLAN
THE SIZE OF EMOTIONS

Breathable Crystalline Silica

An informative approach to understand the criticality
and placing porcelain slabs at a higher value

A. What is Silica?

Silicon dioxide, also known as silica, is a solid mineral made by atoms of silicon and oxygen – with the chemical formula SiO_2 .

It's most commonly found in nature as quartz. In many parts of the world, silica is the major constituent of sand.

B. Very important to make distinctions

Quartz is made of Crystalline Silica, which is the second most common mineral after feldspar.

C. Is it dangerous?

ECHA (European Chemical Agency) established with the 2008 CLP regulation that Crystalline Silica is «not dangerous», even if, in 1997, IARC (International Agency for Research on Cancer) classified Crystalline Silica **powder** as carcinogenic of category 1 – «Substances known to have carcinogenic effects on humans».





The content of crystalline silica in some building materials:

- Granite: 15-35%
- Marble: 0-5%
- Quartzite: above 95%
- Slate: up to 40%
- Recomposed quartz: 85-100%
- Ceramic tiles (ATLAS production): 10 - 25%

Only the free crystalline silica in its breathable component, which is distinguished by a certain particle size, may be hazardous to human health.

BREATHABLE CRYSTALLINE SILICA – EN 418:1993

Defined as: «inhaled particles that reach the pulmonary alveoli becoming a source of danger for the human body».

The dimensions are super small (lesser than 6 micron)

They are generated during the tiles' fabrication procedures – cutting, shaping, milling, drilling, polishing, etc. operations

PS. Very important to note that the carcinogenic effect is active during the fabrication procedures only!



NO DANGER FROM THE PRODUCT ITSELF!

NO DANGER FROM THE PRODUCT ITSELF!

Possible carcinogenic threat coming during
the fabrication processes!

Respirable Crystalline Silica: UE regulations are paving the way

The limit value of professional exposure is 0,1 mg/m³

Possible harm only for «Work involving exposure to respirable crystalline silica dust generated by a fabrication process»

Examples are: dry-grinding, dry cutting, dry rectification.

To prevent long-term damages, it's important to comply with periodic health check-ups for fabricating operators.



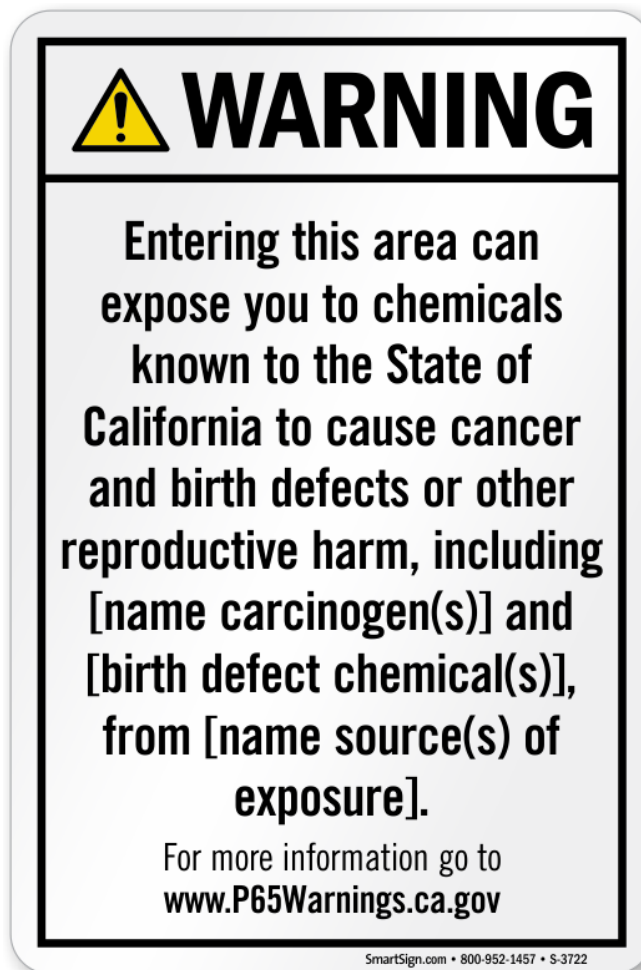
California - Proposition 65

(Safe Drinking Water and Toxic Enforcement Act)

Californian legislation that obliges those who market or manufacture products introduced on the market to highlight the presence of substances deemed dangerous.

It does not prohibit the use of these substances, but imposes the obligation of communication/information to the consumer.

Who sells products in the CA market must highlight the presence of substances considered dangerous - imposes the obligation of communication/information to the final consumer (does not prohibit their use).



Risk of exposure for the final consumer

NO – not once
installed or
removed

POSSIBLE – during
fabrication phase
using power tools

Tests have shown that manual cutting methods cause lower free crystalline silica and metal emissions than power tools

* Study conducted from Environmental
Health & Engineering (EH&E) of Boston

Study from Environmental Health & Engineering (EH&E)

The study conducted from Environmental Health & Engineering (EH&E) of Boston confirms the non-need to label, according to Prop. 65, the ceramic tiles/slabs of the companies/brands participating in the study.

The prop. 65 is only applicable to the CA market.
For US imported products, the OSHA (Occupational Safety and Health Administration) standard is also relevant (29 CFR 1926.1153).

---> **highly important to emphasize and recommend the wet cutting or score and snap system and avoid dry cutting with powered tools**

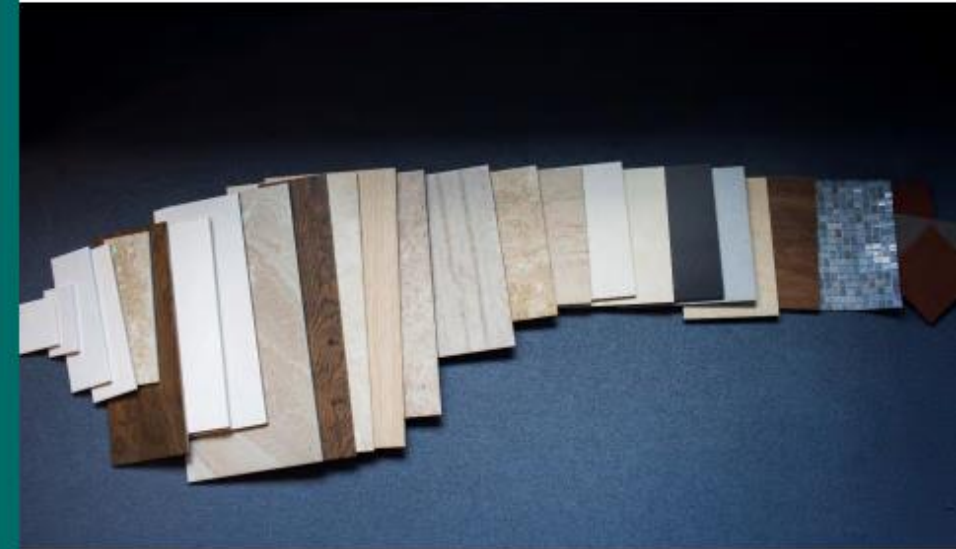


EXPOSURES TO CRYSTALLINE SILICA AND METALS IN CERAMIC AND GLASS TILE

Prepared By:

Environmental Health & Engineering, Inc.

November 2017



ENGINEERED STONE NEWS

Engineered Stone – Silicosis issues

REUTERS® World Business Legal Markets Breakingviews Technology Investigate



Business

2 minute read · February 7, 2023 10:54 AM CST · Last Updated a month ago

Owner of Spain's Cosentino admits negligence over silicosis in workers - documents

Business

Francisco Martinez, who owns Spain's leading kitchen worktop manufacturer Cosentino, accepted a six-month suspended prison sentence for five counts of serious injury due to gross negligence in a plea bargain with the court in the northwestern region of Galicia. Martinez is set to return to the dock in July for a separate trial in the northern city of Bilbao. Prosecutors are asking for two and a half years' imprisonment on six counts of reckless injury.

NEWS

Ministers to mull engineered stone import ban as unions warn of silicosis 'epidemic' among workers

Without a ban, an estimated 100,000 workers could contract silicosis in the next 50 years, the union said.

"The science is clear-cut: engineered stone is killing workers," incoming CMFEU boss Zach Smith said.

"There is no safe level of exposure to engineered stone.

CDC Centers for Disease Control and Prevention
CDC 24/7. Saving Lives. Protecting People.™

Morbidity and Mortality Weekly Report (MMWR)

Severe Silicosis in Engineered Stone Fabrication Workers — California, Colorado, Texas, and Washington, 2017–2019

Weekly / September 27, 2019 / 68(38):813–818

Cecile Rose, MD^{1,2*}; Amy Heinzerling, MD^{2,4*}; Ketki Patel, MD, PhD⁵; Coralynn Sack, MD^{6,7}; Jenna Wolff⁸; Lauren Zell-Baran, MPH^{1,9}; David Weissman, MD⁹; Emily Hall, MPH⁹; Robbie Sooriash, MD⁹; Ronda B. McCarthy, MD¹⁰; Heidi Bojes, PhD⁹; Brian Korotzer, MD¹¹; Jennifer Flattery, MPH²; Justine Lew Weinberg, MSEH^{5,12}; Joshua Potocko, MD¹³; Kirk D. Jones, MD¹⁴; Carolyn K. Reeb-Whitaker, MS¹⁵; Nicholas K. Reul, MD^{6,7,16}; Claire R. LaSee, MPH, MSW¹⁵; Barbara L. Materna, PhD⁹; Ganesh Raghu, MD⁹; Robert Harrison, MD⁹ (VIEW AUTHOR AFFILIATIONS)

The Sydney Morning Herald

Engineered stone import ban to be discussed at national ministers' meeting

THE TIMES OF ISRAEL

Australia moves to ban Israeli-made countertops linked to lung disease in workers

Those fabricating marble-like Caesarstone are at risk of silicosis due to inhaling dust particles over long term

concorde

HEALTH, SAFETY, ETHICAL & ENVIRONMENTAL

Australia moves a step closer to restricting the use of quartz

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BY ERIC BIGNELL, 28 FEBRUARY 2023



Australia is moving towards stricter regulations regarding the use of engineered quartz and possibly banning it altogether.

MARKET INTELLIGENCE

Cosentino owner gets suspended prison sentence for not providing sufficient warning of the risk of processing Silestone

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BY ERIC BIGNELL, 08 FEBRUARY 2023



Cosentino's headquarters in Spain.

Francisco Martinez, who owns Cosentino, the Spanish manufacturer of Silestone and Dekton, has agreed to pay €1.1million compensation to five people (although one of them has died) who said they were not provided with adequate warning of the risk of being exposed to silica dust as a result of cutting and polishing Silestone countertops.

The compensation was part of a plea deal in a court in Spain that saw a prison sentence of

LA County Supervisors Take Initial Step Toward A Ban On Artificial-Stone Countertops

By Jim Morris and Kim Krisberg | Public Health Watch
Published Jun 7, 2023 11:11 AM

L.A. County Ponders Quartz-Surface Ban

PUBLISHED JUNE 2, 2023

LOS ANGELES – Quartz surfaces could be outlawed for future use here later this year due to silicosis concerns.



The Los Angeles County Board of Supervisors voted June 6 to begin consideration of banning what it called "silica-fabricated stone" within its borders.

The action directed various county officials to report back to the board in 90 days "on the options to ban the sale, fabrication and installation of silica-fabricated stone" and

possibly provide money and technical assistance for converting to other materials.

The board also instructed the heads of its public-works and internal-services department to report in 45 days with recommendations on banning future use of quartz surfaces on any county-funded projects.

Quartz countertops linked to deadly lung disease in workers who fabricate the material

Skyrocketing demand for quartz countertops has increased workers' exposure to silica dust, a chemical compound that causes lung damage.



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NEW YORK POST

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HEALTH

Fancy quartz countertops are killing people who make them, doctors say

By Marc Lallanilla

July 24, 2023 | 5:46pm | Updated

This Week's Health Headlines: Espresso and Alzheimer's, New RSV drug, & Are you a mosquito magnet?



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Here's a kitchen design trend to die for:

Quartz countertops are now the most popular choice among home renovators and designers because of their durability



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WORKPLACE

California Regulators Drafting Emergency Rule to Combat Deadly Lung Disease

ANOTHER ARTICLE ON QUARTZ COUNTERTOPS THIS TIME BY CDC !

*“Workers who fabricate and install
quartz surfacing are at risk for
overexposure to silica”*

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Silica Hazards from Engineered Stone Countertops

March 11, 2014 by Karen Worthington, MS, RN, COHN-S; Margaret Filios, SM, RN; Mary Jo Reilly, MS; Robert Harrison, MD, MPH; and Kenneth D. Rosenman, MD



A new engineered stone countertop product known as “quartz surfacing,” was created in the late 1980s by combining quartz aggregate with resins to create a product for use in home building and home improvement. Manufacturing of this material, including products such as CaesarStone™, Silestone™, Zodiaq™, or Cambria™ is a fast growing industry. First made in Israel and Spain, production of these materials has grown world-wide, driving quartz slab imports to the U.S. up 63% between 2011 and 2012 and 48% between April 2012 and April 2013 (Schwartzkopf 2013, StatWatch 2013). Quartz surfacing materials may contain up to 93% crystalline silica (Dupont 2010). In contrast, the percent of crystalline silica in a slab of granite is less than 45%, darker color granite has a lower percentage (Simcox et al. 1999). Workers who fabricate and install quartz surfacing are at risk for overexposure to silica released during sizing, cutting, grinding and polishing. Prolonged inhalation of dust from silica-containing materials can lead to silicosis (scarring of the lungs). In addition to silicosis, scientific evidence indicates that occupational exposure to crystalline silica puts workers at increased risk for other serious health conditions: chronic obstructive lung disease, lung cancer, kidney and connective tissue disease, and tuberculosis. The focus of this blog is on silicosis, which has occurred in

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