TILEMAX
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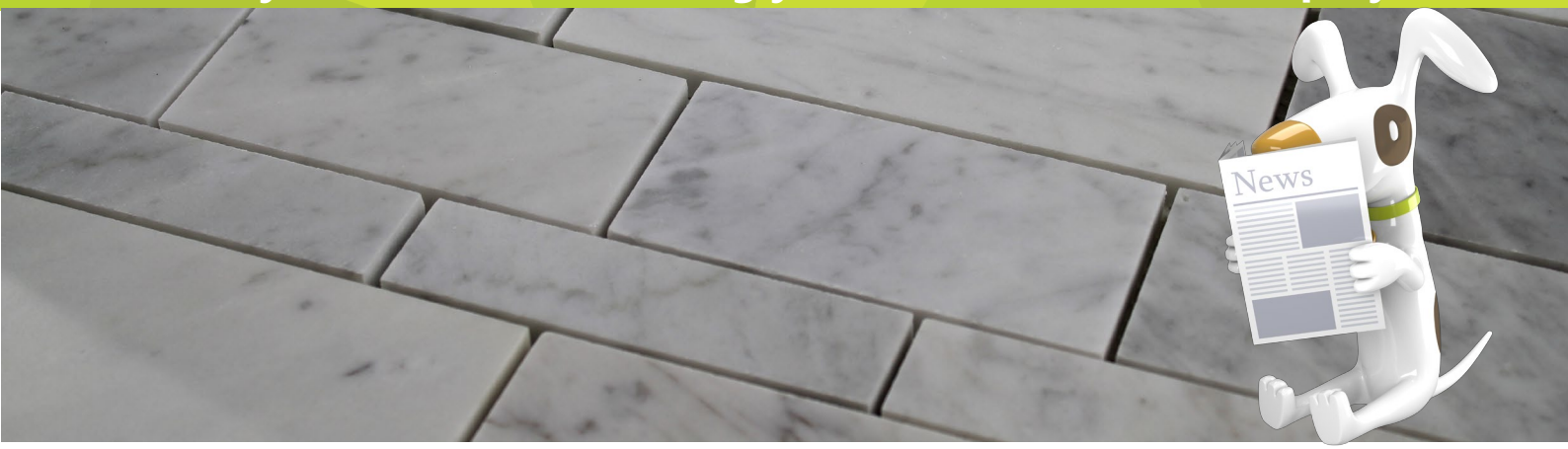
Tile Safety advice before starting your DIY or construction project



Ceramic tiles are non-flammable, free from harmful fumes or chemicals, and pose no health risks when stored, handled, or installed under normal conditions.

Tiles are made from a combination of clays, feldspars, and other natural minerals, some of which contain silica. These materials are heated to high temperatures during manufacturing. The final product is largely inert, but it may contain small amounts of sintered crystalline silica, which is harmless unless inhaled as fine dust.

Silica dust can be generated during dry cutting, grinding, or mechanical processing of concrete, stone, brick, or ceramic tiles. Dust can also be produced during demolition, disposal, or when levelling substrates, mixing grout, or adhesives.

To minimise dust exposure, use a scribe cutter whenever possible. Before beginning any cutting work, review general safety procedures and ensure you're wearing the proper personal protective equipment (PPE), including a certified mask. If possible, it's best to avoid dry cutting or grinding with power tools. If dry cutting is unavoidable, use equipment fitted with dust collection systems, such as HEPA filters or water delivery systems, to reduce airborne dust. If other safety measures are not sufficient, wear a well-fitting P2 respirator to keep dust levels within safe limits as defined by workplace exposure standards. Refer to worksafe New Zealand

https://www.worksafe.govt.nz/topic-and-industry/dust/silica-dust-in-the-workplace/

General Tile Safety Advice

When installing or demolishing tiles, it's essential to consider your safety and that of those around you. You don't want silica dust spreading throughout the site, so taking the right precautions is critical.

Respiratory Protection

Always use the correct P2 Respiratory Protective Equipment (RPE), which must comply with the AS/NZS 1716 standard for respiratory protective devices.
Check that your RPE is P2 certified and conforms to these safety standards.

Hearing Protection

When using any powered cutting or grinding equipment, always wear appropriate hearing protection to protect your ears from damaging noise levels.

Eye Protection

Regardless of the cutting method (score and snap, wet saw, electric grinder, or tile nippers), always wear suitable safety glasses. Even tiny fragments of tile or stone can cause serious damage to your eyes.

Clothing Protection

When cutting tiles or working with adhesives, it's important to wear protective gloves, steel-capped boots, and appropriate workwear, such as long pants and a long-sleeve shirt, to minimize the risk of injury.

Bending and Lifting

Tile boxes can be heavy. Always bend your knees and lift with care. If you're working with large-format tiles, engage help. Never try to lift them by yourself.

NOTE: To minimise dust hazards, avoid dry cutting or grinding with a power tool. If it's unavoidable, use equipment with an integrated dust collection system.

What Is Silica?

Many common building materials contain silica, a natural element that makes up 59% of the earth's crust. Silica is a key component of most natural stones, including granite, slate, and sandstone, as well as sand, soil, and clay.

Because they are made from natural materials, silica is also found in products like natural stone, engineered stone, bricks, tiles, glass, mortar, cement, concrete slabs, and blocks. The amount of silica present varies depending on the material. There are different forms of silica, and while most are harmless, crystalline silica can pose health risks when its dust is inhaled or ingested.

The crystalline silica content in various materials can differ significantly,

· Ceramic tiles: 5% to 45%

· Slate: 20% to 40%

· Marble tile 0%-5%

· Limestone tile 0%-5%

· Concrete: 25% to 75%

· Brick: 30% to 40%

· Sandstone: 70% to 90%

· Engineered stone: 80% to 95%

· Autoclaved aerated concrete: 20% to 40%

· Granite: 25% to 60%

Crystalline silica dust can be harmful when inhaled over a prolonged period at low to moderate levels, or for short bursts at high levels. Silica dust is safe when not disturbed, but activities like cutting, drilling, grinding, or demolishing materials containing silica can generate dust that, when inhaled, causes health issues.