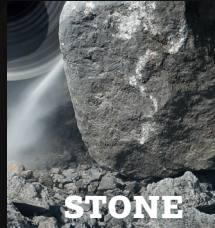
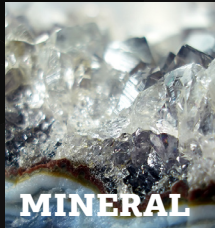


RESPIRABLE CRYSTALLINE SILICA

FACTS & FIGURES

WHAT IS IT?

Crystalline silica is a natural substance found in stone, rocks, sand and clay, as well as products like bricks, tiles, concrete and some plastic composites. When these materials are worked on, i.e. cut or drilled, the crystalline silica is released as very fine dust.



Silica dust particles are much smaller than normal dust and are harmful when breathed in.

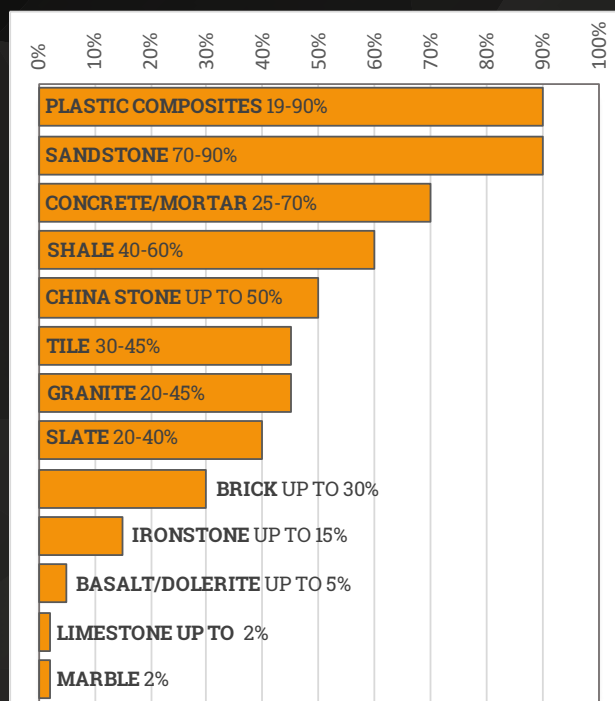
- Silica dust = 5 µm
- Beach sand = 50 - 70 µm

These particles are so small that they are invisible to the naked eye and can therefore be inhaled in high quantity without anyone being aware.



The dust can get into your lungs and stay there, permanently damaging the lung tissue which can eventually lead to life threatening illnesses. Crystalline silica can cause cancer, silicosis and serious lung diseases like emphysema and bronchitis.

HOW MUCH SILICA?



800 PEOPLE A YEAR DIE
IN BRITAIN
FROM LUNG
CANCER CAUSED
BY SILICA DUST
EXPOSURE AT
WORK

SILICA DUST AT WORK

Silica dust exposure can happen through occupational activities:

- LAYING BALLAST
- CUTTING CONCRETE
- TUNNELLING, EXCAVATING
- STONE WORKING
- GLASS MANUFACTURING
- SWEEPING UP



IMPORTANT - Consider all the facts

It's not just these specific activities which can leave people exposed to silica dust. Cleaning up after the work has been carried out, can be just as hazardous:

- Dust stays in the air even after the job is completed
- Dust can be released from clothes and surfaces
- Dust can become airborne again when disturbed

Silica dust is one of the world's most significant causes of work-related diseases around the world.

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SAFETY 

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HOW MANY ARE AFFECTED?

Research from Imperial College London **estimates that around 900 new cases of lung cancer each year in Britain** can be attributed to past exposure to silica dust in construction, granite and stone industries, and various industrial processes.

Lung cancer is difficult to treat and most of those diagnosed with the disease will die within a few years - only one in 20 will live 10 years or more.

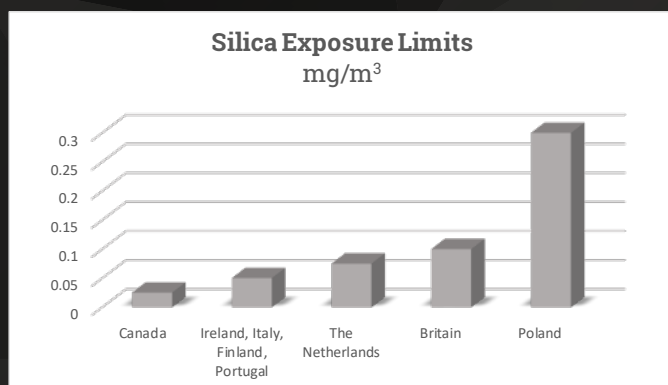


WHAT NEEDS TO BE DONE?

Controlling and reducing silica dust exposure cuts the risk of both silicosis and lung cancer. **Lung cancer is a risk even for low-level silica dust exposure.**

Measuring Exposure:

Silica exposure limits vary from one country to the next, but they are generally expressed as an average figure over an 8 hour working day.



Research carried out in Canada and Europe estimates that typical daily average silica dust exposure is probably less than 0.1mg/m³ on an average working day for workers in the relevant jobs in the UK. But the study also showed that exposure limit in the UK is higher than in other countries in Europe.



Controlling Exposure:

The main objective should be to stop silica dust getting in the air. To achieve this, some actions need to be taken:

- Review the materials and processes used
- Substitute materials containing crystalline silica
- Monitor exposure and identify tasks that need greater controls
- Control dust using enclosures with exhaust systems for workshop environments and localised ventilation for hand-held power tools
- Use dedusting systems to remove and extract dust from PPE and clothing

Silica lung cancer cases in Britain could drop to 100 a year if legal compliance was improved.



IMPORTANT - Seek expert advice

Assessing and managing exposure to harmful substances is a specialist job. Without the proper training and experience, fatal mistakes can be made. Seek expert advice if you need to.

Source of information

- IOSH - No Time to Lose Campaign. (notimetolose.org.uk)
- Construction News Index



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