

Good Practice Guide

FOR THE SAFE FABRICATION OF SILESTONE®, DEKTON®,
INTEGRITY®, SILQ® DESIGNED BY COSENTINO,
SENSA®, SCALEA AND PREXURY® BY COSENTINO



SILESTONE

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DEKTON

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SENSA



Warning

This guide has been prepared for professionals (stonemasons, installers, etc.) and provides information and recommendations on the risk classification, and health and safety issues to be considered in the cutting, grinding, polishing and installation of SILESTONE®, DEKTON®, INTEGRITY®, SILQ® DESIGNED BY COSENTINO, SENSEA®, SCALEA and PREXURY® BY COSENTINO

These products contain different amounts of crystalline silica. Processing them incorrectly or without adopting the appropriate safety measures can cause serious illnesses.

IN NO CASE IS THIS GUIDE EXHAUSTIVE OR SUBSTITUTIVE OF THE LEGAL OBLIGATIONS IN REGARDS OF HEALTH AND SAFETY UNDER THE APPLICABLE LOCAL REGULATIONS. ALWAYS OBTAIN ADVICE FROM YOUR ADMINISTRATION AND FROM A PROFESSIONAL INDUSTRIAL HYGIENIST TO IMPLEMENT THE OCCUPATIONAL SAFETY MEASURES REQUIRED TO MEET THE REGULATORY OBLIGATIONS AND TO MITIGATE THE EXPOSITION TO DUST, AS THE REQUIRED SAFETY MEASURES DEPEND ON THE SPECIFIC CONDITIONS OF THE WORKPLACE.

Exposure to respirable crystalline silica

SENSA® BY COSENTINO® are granite and quartzite stones.

SCALEA® BY COSENTINO® includes natural stones such as marble, granite, sandstone, limestone, quartzite, slate, soapstone and travertine.

SILESTONE® and INTEGRITY® DESIGNED BY COSENTINO® are inorganic mineral agglomerate composites.

PREXURY BY COSENTINO® includes precious or semi-precious natural stones held together by a polymerized resin.

DEKTON® DESIGNED BY COSENTINO is ultra-compact surface of sintered minerals.

SILQ® DESIGNED BY COSENTINO are quartz agglomerate composites.

These products might contain different levels of crystalline silica in the form of quartz or cristobalite.

Below it is indicated the risk classification for the different crystalline silica content ranges. For more precise crystalline silica content of specific products, please contact COSENTINO GLOBAL S.L.U.



Health & safety information about respirable fraction of crystalline silica (SiO₂).

Crystalline silica is a ubiquitous component in the earth's crust, present in many types of minerals (such as granite, slate, quartzite, sand, clay) and artificial materials (such as cement, concrete or ceramics). Respirable size particles of crystalline silica may result when workers chip, cut, drill or grind these objects.

Respirable crystalline silica may present a health hazard if workers are not properly protected and workplaces are not properly controlled to reduce silica dust.

Inadequate processing of the material or without the pertinent protective measures, may cause a number of diseases known as pneumoconiosis (among which silicosis is highlighted), or lung cancer. For more details of the risks see the Safety Data Sheets available at osh.cosentino.com

SIGNAL WORD:
DANGER



PRECAUTIONARY STATEMENTS:

- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P260: Do not breathe dust.
- P264: Wash hands and face thoroughly after handling.
- P270: Do not eat, drink or smoke when using this product.
- P284: Wear respiratory protection with particle filtering (at least P3 or N95)



International emergency phone line (ChemTel Inc.):
+1-813-248-0585

SILESTONE®, ECO®, INTEGRITY®.

Crystalline silica content:

Q10 1-10% SiO₂; **Q40** 11-40% SiO₂;

Q50 41-50% SiO₂; **Others** 51-90% SiO₂

*Products Q10, Q40 and Q50 are identified on the back of the slab and with a label on the edge.

HAZARD STATEMENTS:

Silestone® Q10:

H373: May cause damage to organs (lungs) through prolonged or repeated exposure (via inhalation).

H350i: May cause cancer by inhalation.

H335: May cause respiratory irritation.

Silestone® Q40, Q50 and rest of products:

H372: Causes damage to organs (lung) through prolonged or repeated exposure (via inhalation).

H350i: May cause cancer by inhalation.

H335: May cause respiratory irritation.

DEKTON®.

Crystalline silica (SiO₂) total content in product: 5 - 11%.

HAZARD STATEMENTS:

H372: Causes damage to organs (lung) through prolonged or repeated exposure (via inhalation).

H350i: May cause cancer by inhalation.

H335: May cause respiratory irritation.

SENSA® y SCALEA®.

Crystalline silica (SiO₂) total content in product: 0 - 99% (depending on the type of natural stone).

HAZARD STATEMENTS:

Granite, sandstone, quartzite, slate:

H372: Causes damage to organs (lung) through prolonged or repeated exposure (via inhalation).

H350i: May cause cancer by inhalation.

H335: May cause respiratory irritation.

HAZARD STATEMENTS. Marble:

H373: May cause damage to organs (lungs) through prolonged or repeated exposure (via inhalation)

H350i: May cause cancer by inhalation.

H335: May cause respiratory irritation.

PREXURY®.

Crystalline silica (SiO₂) total content in product: >90% (except Labradorite with <1%)

HAZARD STATEMENTS:

H372: Causes damage to organs (lung) through prolonged or repeated exposure (via inhalation).

H350i: May cause cancer by inhalation.

H335: May cause respiratory irritation.

SILQ®.

Crystalline silica content: 51-92%

HAZARD STATEMENTS:

H372: Causes damage to organs (lung) through prolonged or repeated exposure (via inhalation).

H350i: May cause cancer by inhalation.

H335: May cause respiratory irritation.

Although these guides contain information and recommendations on occupational safety and health, they are not exhaustive, nor they exonerate to professionals and their workers of their responsibility to evaluate the risks and implementing the safety measures of that are applicable to them.

Fabricators and installers of SILESTONE®, DEKTON®, Eco®, Sena®, Scalea®, Integrity®, SILQ® and Prexury® by Cosentino® are required to at least comply with all local laws and regulations pertaining to occupational health and safety. In addition to the information in this Guide, it is also recommended that fabricators and installers of SILESTONE®, DEKTON®, ECO®, SENSA®, SCALEA®, INTEGRITY®, SILQ® and PREXURY® BY COSENTINO® become familiar with the information provided by your local administration or sectorial associations in relation to the work with crystalline silica.

In particular it is recommended consulting the good practice guides published in several languages by NEPSI (European Network for Silica), by the American OSHA (Occupational American Safety and Health Administration), by SWA (Safe Work Australia), or the Technical Note of Prevention 890 of the Spanish INSST (National Institute of Safety and Health at Work).

Visit www.insst.es, www.nepsi.eu, www.swa.gov.au and www.osha.gov for more information.

Namely, these instructions provide basic information and advice on:

- Organizaciones no Access to the workplace
- Water-injected hand machines and tools
- Local extraction and filtration systems.
- General ventilation in factories plants
- Periodic maintenance and supervision
- Cleaning
- Dust monitoring
- Other risks: cuts, projected particles, noise, handling loads.
- Installation of worktops
- Personal Protective Equipment
- Hygiene
- Training and information for workers.
- Health Surveillance

Preventive measures



Access to work area

Restrict access to work areas to authorized personnel only. Put signs when the area is at risk.



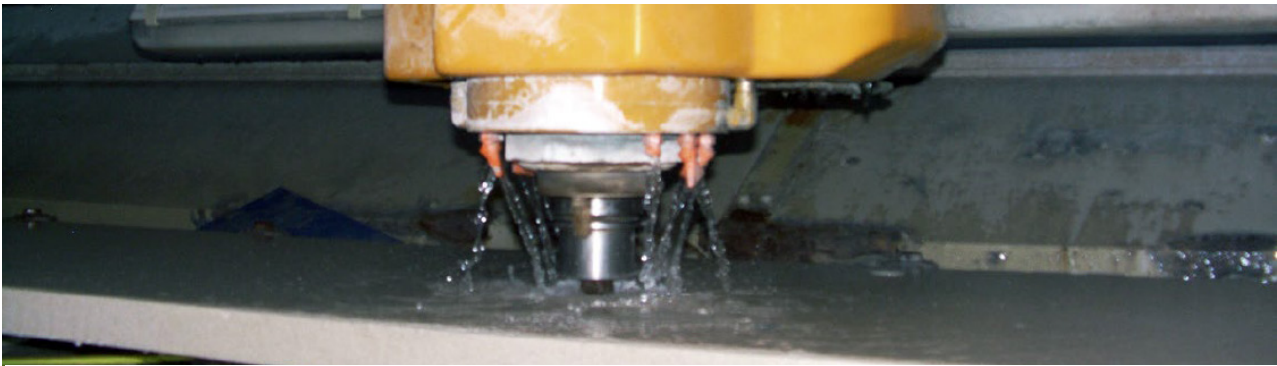
Water-injected hand cutting machines and tools

There are two main methods to control the focus of the source of silica dust: tools with water supply (preferred method)

and localized filtration and extraction systems (as a complement), and wet collection filters.

Always use tools provided with water supply. All the tasks of cutting, carving, polishing and finishing of the materials must be carried out using tools with water supply system. Water should be clean, abundant and directed towards the area where the cut, the carving or the polishing is performed.

The moistened dust must be discarded to prevent it from drying out and being suspended in the air. Water pumps, hoses and nozzles must be kept in excellent operation condition and shall be cleaned periodically. When working with water it is essential to avoid electrical hazards by using ground-fault circuit-interrupters (GFCI) and waterproof and sealed electrical connectors for tools and electrical equipment. Workers who work in wet areas should also wear rubber boots.





Local extraction and filtration systems

Use a recognised exhaust ventilation supplier. Only use qualified engineers to carry out the design and the installation. Check periodically the efficacy of the equipment with accredited measurements.

The design should include the following items: a hood, an enclosure or other inlet to collect and contain contaminants, ducts to remove contaminants away from the source, a filter or any other air cleaning device, normally placed between the hood and fan, a fan or other device to move air to provide the air flow, and finally other ducts to discharge the clean air outside the workplace.

Apply local exhaust ventilation at the generation source to capture the dust.

Encapsulate and seal the source of dust as much as possible, so as to hinder spreading of this dust.

Local exhaust ventilation should be connected to a suitable dust extraction unit (e.g. a bag filter or cyclone).

Workers should not stand between the source of exposure and the local exhaust ventilation; otherwise, they will be directly in the path of the contaminated air flow. Please observe periodically the position of workers and train them.

Whenever possible, place the work area away from doors, windows or passageways to prevent air currents from interfering with local aspiration points and the spreading of dust.

Ensure that there is a clean air supply to replace the extracted air.

The air extracting ducts shall be short and with simple forms, avoiding long sections of flexible ducts and unnecessary bending, joints or elbows.

Discharge extracted air to a safe place away from doors, windows and air inlets.

A highly advisable practice consists in the installation and use of water curtains as a method of localized dust extraction.



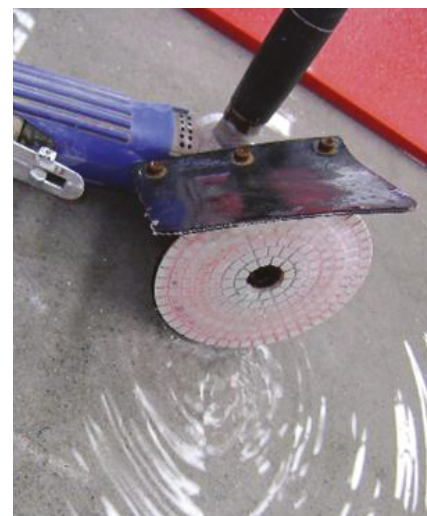
Water-injected hand cutting machines and tools

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Always use tools provided with water supply. All the tasks of cutting, carving, polishing and finishing of the materials must be carried out using tools with water supply system. Water should be clean, abundant and directed towards the area where the cut, the carving or the polishing is performed.

The moistened dust must be discarded to prevent it from drying out and being suspended in the air. Water pumps, hoses and nozzles must be kept in excellent operation condition and shall be cleaned periodically. When working with water it is essential to avoid electrical hazards by using ground-fault circuit-interrupters (GFCI) and waterproof and sealed electrical connectors for tools and electrical equipment. Workers who work in wet areas should also wear rubber boots.





Periodic maintenance and supervision

Ensure equipment is maintained in good working condition as advised by the supplier's recommendations manual.

Implement a Periodic Maintenance Plan favouring a preventive maintenance over a corrective one.

Clean the equipment on a regular basis, at least one time at the end of the shift. Do not clean with a dry brush or using compressed air. Do not allow dust/waste deposits to dry out before they are cleaned up.

Ensure the local exhaust ventilation is maintained in good working condition in accordance with the supplier's or the installer's recommendations.

Noisy or vibrating fans can indicate a problem.

Replace consumables (filters, etc) in accordance with the manufacturer's recommendations.

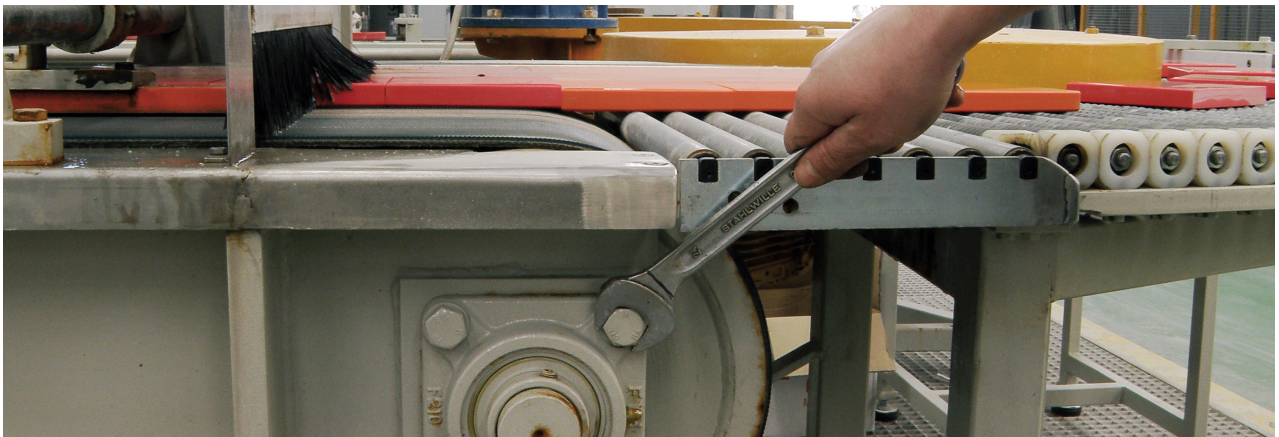
Do not modify any part of the system. If you do so, check with the supplier to ensure that the system retains the CE mark or make inspection and risk assessment by and licensed expert.

You should receive instructions for use and a diagram of the installed systems. You must receive a commissioning report showing the airflows at all inlets, the air speed in the ducts and the pressure index in the cleaner or filter.

Please contact the supplier for information on the expected performance of the local exhaust ventilation. Keep this information to compare with future test results.

At least once a week, visually inspect the equipment for signs of damage. If they are constantly used, check them more frequently. If used rarely, check before each use.

Keep records of inspections for the period of time required by the country's laws (recommended minimum five years).





Cleaning

Because the hazardous dust is very fine and can go easily to the air and so may stay there for days it is important to have a comprehensive housekeeping program.

Clean the equipment every day, at least one time before leaving for home.

Clean the workplace daily. Use walls and flooring surfaces that can easily be kept clean and that do not absorb or accumulate dust.

Clean floors and other surfaces on a regular basis. Clean also the entire warehouse structures and inlet roof.

Use cleaning methods with water supply or vacuum aspiration (industrial vacuum cleaners with HEPA filter). Do not clean with a dry brush or compressed air, as this will greatly increase the exposure level. Take care of spills immediately. Do not allow wet dust / debris deposits to dry before they are disposed.

If vacuum cleaning systems are required for spill of large volumes of dust, they should be especially designed to avoid overloading and blocking.

When it is not possible to use wet or vacuum cleaning methods, and only dry cleaning with brushes can be carried out. Make sure that workers wear the appropriate personal protective equipment and that measures are taken to prevent crystalline silica dust from spreading outside the work area.

When necessary, to prevent dust from spreading between building levels, use solid floors and cover them with a wear-resistant material, colored to highlight dust contamination.

Control panels can be protected from dust by using a plastic barrier or similar membrane.

When using wet cleaning methods, provide an adequate number of correctly positioned water connection points.

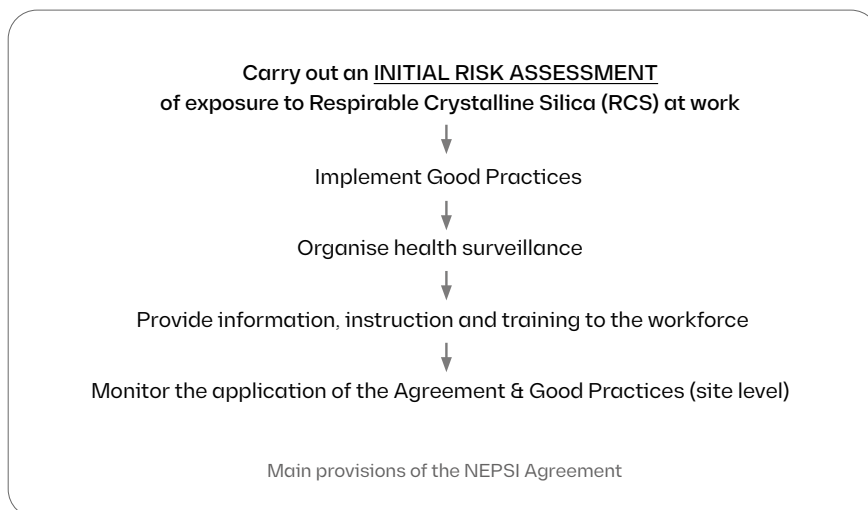
Ensure that there is also an adequate number of connection points for aspiration when using a central vacuum cleaning system.



Dust monitoring

Risk assessment should be carried out to determine whether existing controls are adequate. Both personal and static measurements can be used together, as they are complementary. It is up to the Industrial Hygiene specialists contracted by employers to propose for the most appropriate solutions, while respecting the applicable legislation.

The sampling strategy, equipment used, analysis methods etc, must be defined by the Industrial Hygiene specialists. Keep complete records of dust monitoring data and adopt a quality system as described above. The personnel in charge of the samplings should set a good example and wear respiratory protection equipment in the required areas. The dust monitoring must be performed periodically. Please check NEPSI agreement (<https://www.nepsi.eu/agreement>).





Other risks: cuts, projected particles, noise, handling loads

The fabrication of SILESTONE®, DEKTON®, INTEGRITY®, SILQ®, DESIGNED BY COSENTINO, SENSAS®, SCALEA AND PREXURY® BY COSENTINO may involve some risk such as; blows and cuts with objects and tools, projected particles, noise exposure, vibrations and handling loads.

Review the risk assessment results carried out by Health and Safety experts.

Use the appropriate tools for each task and keep them in good working order. Use the personal protective equipment recommended at all times: dust mask, gloves, eye and ear protection and high visibility jacket in the area of tuck or forklift traffic.

For slabs handling use also the helmet. Insure that all A-frame are feet wit safety bars to avoid the falling of slabs at the moment of taking off or leaving down the slab. The safety bars must feet in all A-frame, in the warehouse and also in the trucks.

Worker using crane, truck crane or forklift must be properly training.

Check formally on a daily basis crane, truck crane and forklift.

Check periodically and according to manufacturer manual and regulations, with and expert inspector, crane, truck crane and forklift.



Check periodically and according to manufacturer manual and regulations, with and expert inspector, electrical instalations.

Use mechanical means to transport heavy parts or materials. As far as possible avoid handling or transporting weights over 20kg or in awkward positions, also try to avoid repetitive movements.

Specific safety measures for DEKTON®

Warning: the edges of the cut Dekton® material, and specially the fragments, can be very sharp.

Slabs need to be handled and processed using cut-protection gloves.

Scrap material shall be handled with care.

Avoid hammering the scrap material to reduce fragment size.



Installation of worktops

The worktop should be finished when it leaves the workshop so that no further work will be carried out on site. Please take accurate dimensions of the kitchen. (remember the principle, “measure twice, cut once”) and thus avoid any type of adjustment in the site of instalation. Cut the gaps and emptyings in the workshop before installation whenever possible.



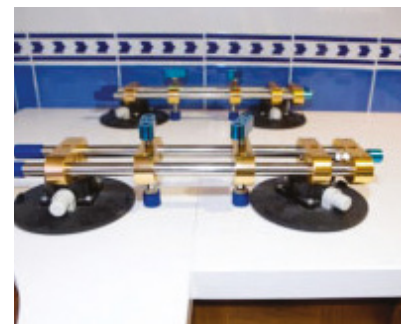
If the worktop requires a final check in the house, we recommend you find a well-ventilated place (terrace, balcony, etc) and use a wet cleaning method if possible. Wear personal respiratory protection with suitable particle filter according to the level of crystalline silica exposure (high efficiency filter European EN143 type P3; NIOSH protection N95, R95, P95 or higher; Australian AS/NZS 1716 protection P1, P2 or higher). For higher protection, it is recommended to use a powered, air-purifying respirator with a tight-fitting face piece and a high-efficiency particle filter. Ear and eye protection must be used for particles.

In case the adjustment can only be made in dry conditions, the safety measures are the same, but additionally they must be supported by a portable localized dust aspiration system (if possible, a class H vacuum cleaner). For the manipulation of the pieces use means such as manual suction cups.

When fixing joints, trims, sockets etc. using products such as Solumastik®, Colorsil®, solvents, etc, latex gloves must be worn and appropriate respiratory protection containing organic vapor filters.

To complete the installation, all dust must be cleaned up in order not to create, as far as possible, dusty environments, also the worktop must be cleaned.

For more information, please, consult the Health & Safety Guide specific for installers.





Personal protective equipment (PPE)

In those areas or workplaces where risks still exist the use of personal protective equipment is mandatory and they must be clearly defined by appropriate signs.

The personal protective equipment must comply with the relevant EC regulations, or the local regulations applicable,

about its design and fabrication, in relation to safety and health. The company must provide all the personal protection equipment to its employees, which must bear the corresponding certification mark (CE or similar).

Wear personal respiratory protection with suitable particle filter according to the level of crystalline silica exposure (high efficiency filter European EN143 type P3; NIOSH type N95, R95, P95 or higher; Australian AS/NZS 1716 type P1, P2 or higher). For higher protection, it is recommended to use a powered, air-purifying respirator with a tight-fitting face piece and a high-efficiency particle filter. Note that facial hair reduces the effectiveness of a mask. Please, always check applicable local law if any other specification is determined.

When using PPE, provide employees with training on selection, use and maintenance of the equipment.

If employees have to wear more than one PPE item, ensure that they are compatible with each other.

Check the effectiveness of respiratory protective equipment before use. Consult the supplier about the appropriate adaptation methods.

Keep records of PPE provided. Provide clean storage facilities for PPE when not in use.

Check the possible existence or exposure to other contaminants, to adapt correspondingly the type of filters to be used.



Hygiene

Provide storage facilities for workers clothes. Clean clothes should be separated from work clothes.

This area should have toilets, wash basins and showers as well as personal lockers. Workers should wash their hands and faces and take overalls off before eating.

Define a specific and clean area where workers can prepare meals, eat and drink away from their workstation.

Provide workers with an adequate supply of clean work clothes, including additional outfits. Workers who handle silica dust should wear overalls made of a fabric that prevents the absorption of dust.

Do not use compressed air to clean overalls. Workers should not smoke inside the facility.



Safety & health



Training and information for employees

Staff should receive training on risks associated with the fabrication of SILESTONE®, DEKTON®, INTEGRITY®, SILQ® DESIGNED BY COSENTINO, SENSA®, SCALEA AND PREXURY® BY COSENTINO

New employees should attend a training session that addresses all health and safety aspects, including the company's safe working procedures for dealing with hazardous substances such as respirable crystalline silica.

Use a variety of training methods incorporating visual aids, videos, group discussions and handouts. Workers' knowledge should be assessed at the end of each session to verify that they have understood the training material.

Refresher training sessions should be provided to keep workers up to date on health and safety policies and procedures.

Give your workers information on the health and safety effects associated with respirable crystalline silica dust, noise or any other risk associated with their activity.

Give them information on:

- The risks associated with the work with materials having crystalline silica.
- Good practices to use in the workplace and safe working procedures.
- When and how to use respiratory protective equipment (RPE) or other personal protective equipment (PPE).
- Dust monitoring programs and other planned corrective measures.
- Safety data sheets for the used products.
- Work equipment, machinery and tools affecting their work.

In the event that an employee's measured personal exposure to respirable crystalline silica exceeds the relevant occupational exposure limit value, that employee must be provided with details of his/her personal exposure monitoring result if required by law.

Establish corrective actions, and perform new measurements in the stipulated time frames, to check the efficacy of such actions.

Attendance at training sessions should be compulsory. Participation should be well documented and records should be kept.

Workers should be asked to provide feedback on each training session, which might help in the organization of future training sessions.



Health surveillance

The Company should keep a record of which positions are exposed to respirable crystalline silica.

Specific health surveillance protocols should be implemented for those employees at risk.

The may include:

- Spirometry
- X ray
- High-resolution tomographies
- Periodicity

In some countries the health check has to be conducted before the hiring. Please be sure of the situation in your country.

As always, companies are required to comply with all applicable laws and regulations.



Warning

Legal compliance and safety requirements

Fabricator agrees that it will, at all times, comply with all local and other applicable rules, regulations, ordinances and laws regarding the application, handling, process, storage, fabrication and disposal of all SILESTONE®, DEKTON®, INTEGRITY®, SILQ® DESIGNED BY COSENTINO, SENSEA®, SCALEA AND PREXURY® BY COSENTINO. In particular fabricators must perform periodic risk assessment of all jobs and take the appropriate measures to control the risk.

Fabricator acknowledges and understands that: fabrication of the materials, especially through dry cutting, emits air-borne particles, including respirable crystalline silica, that may cause silicosis, lung cancer and other serious illnesses; and COSENTINO GLOBAL S.L.U. strongly recommends that fabricators take all appropriate precautions, including wet cutting, wet grinding, wet milling and wet polishing, as it may reduce the risk of inhalation of air-borne particles.

Technical Counseling Report

The recommendations and proposals found in this document are a mere guide for the implementation of organizational, technical and life-style measures. In no case these are exhaustive or substitutive of the legal obligations in regards of health and safety under the applicable local regulations; or the company's regulations in this matter such as risk assessments, planning of remedial measures, specific technical reports; information and training, preventive care, etc..

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* To obtain more information about colours with NSF certificate please visit www.nsf.org