



GOOD PRACTICES GUIDE

FOR THE MANUFACTURE OF
COMPAC® PRODUCTS



WARNING

This guide has been prepared for professionals and provides information and recommendations on risk classification and health and safety issues to consider when cutting, grinding, polishing and installing COMPAC® products.

COMPAC® products may contain varying amounts of crystalline silica.

Processing them without proper health and safety precautions can cause serious illness.

THIS GUIDE IS IN NO WAY EXHAUSTIVE OR A SUBSTITUTE FOR LEGAL HEALTH AND SAFETY OBLIGATIONS IN ACCORDANCE WITH THE VARIOUS LOCAL REGULATIONS.

COMPAC® recommends that you ALWAYS seek advice from your management and a professional industrial hygienist on the safety measures required for your particular location and workstation in order to meet regulatory requirements and mitigate dust exposure.

EXPOSURE TO RESPIRABLE CRYSTALLINE SILICA

This Guide provides information and recommendations on safety and health matters relating to the processes of handling, cutting and installing COMPAC® products.

COMPAC® products may contain different levels of crystalline silica in the form of quartz or cristobalite. The risk classification for the different ranges of crystalline silica content is given below.

INFORMATION ON SAFETY AND HEALTH RELATED TO RESPIRABLE CRYSTALLINE SILICA (SiO₂)

Respirable crystalline silica is a basic component of the Earth's crust, found in sand, granite, quartz and many other minerals. When workers break, cut, perforate or strike rock containing SiO₂, particles in suspension are emitted that may be inhaled, and this is a health hazard in the event that workers are not wearing appropriate protection or if the workplace is not equipped with suitable devices for the suppression of silica dust in the atmosphere.

HAZARD WARNINGS:

IQpro10

H372: May cause damage to organs(lungs) through prolonged or repeated exposure(via inhalation).

H350i: May cause cancer by inhalation.

H335: May cause respiratory tract irritation.

IQpro40 and IQ

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H335: May cause respiratory tract irritation.

Cautionary advice:

P201: Ask for special instructions before use.

P202: Do not handle the substance (mixture) until all safety instructions have been read and understood.

P260: Do not breathe dust/fume/fume/gas/mist/mist/vapours/spray.

P264: Wash hands and face thoroughly after handling.

P270: Do not eat, drink or smoke during use.

P284: Wear respiratory protective equipment for particulates (At least P3 or N95).

First aid advice:

P314: Seek medical advice if you feel unwell when using the product.

P501: Dispose of waste material in accordance with local regulations.



H372 DANGER/STOT RE 1: Causes lung damage after exposure.

PREVENTION

P260 Do not breathe dust generated during cutting, grinding and polishing.

P264 Wash hands and face thoroughly after handling.

P270 Do not eat, drink or smoke during use.

P284 Wear respiratory protective equipment for particles (P3).

FIRST AID

P314 Consultar a un médico en caso de malestar.

P501 Eliminar los restos conforme a la reglamentación local.

COMPAC® strongly encourages installers to comply with the recommendations in this Guide to Good Practice to avoid or minimise exposure to crystalline silica.

Manufacturers and installers of COMPAC® products must, as a minimum, comply with all occupational health and safety laws and regulations. In addition to the information in this Guide, manufacturers and installers of COMPAC® products are also encouraged to familiarise themselves with the European Network on Silica (NEPSI) and its Guide to Good Silica Handling Practices, as well as the US Occupational Safety and Health Administration (OSHA) Emphasis Program for Crystalline Silica.

Visite <http://nepsi.eu> y www.osha.org para obtener más información.

The instructions provide information and guidance on:

- Access to the work area.
- Machines and hand tools with water supply.
- Localised extraction and filtration systems.
- General ventilation of workplaces.
- Maintenance and periodic monitoring.
- Cleaning methods
- Dust measurements.
- Other risks: cuts, projections, noise, loads.
- Hygiene standards.
- Personal protective equipment.
- Installation of worktops.
- Training and information for workers.
- Health surveillance.

All data in this document are based on tests performed in laboratories external and independent of COMPAC.

PREVENTIVE MEASURES

ACCESS TO THE WORKPLACE

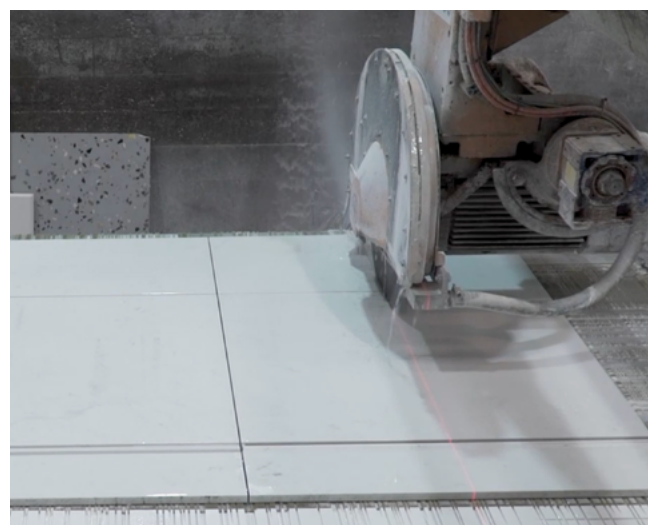
Restrict access to work areas to authorised personnel only. Signpost the hazard area.

CUTTING MACHINERY AND EQUIPMENT USING WATER SUPPLY SYSTEMS.

There are two main methods for the control of silica dust: filtering and localised extraction systems, and wet process machinery.

All dry mechanising (without wet processes) are to be avoided.

All jobs involving cutting, shaping, polishing and finishing of materials must be performed using wet-process tools and machinery. When dust is dampened it is prevented from remaining suspended in the air. All water pumps, hoses and nozzles must be maintained in good working order and be cleaned and inspected regularly. In order to prevent electrical hazards when working with water, a ground fault circuit interrupter (GFCI) and impermeable and properly sealed electrical connections to electric tools and equipment must always be used. Workers working in wet areas must also always wear rubber boots.



LOCALISED EXTRACTION AND FILTERING SYSTEMS

Use a local extraction equipment supplier of recognised quality. For installation, contact qualified engineers for the design and installation of these systems.

The design should have the following elements: an extractor hood; a compartment or other inlet permitting the trapping and containment of the contaminant; pipes to transfer the contaminant outside the work area; a filter or other device for cleaning air, normally placed between the hood and the ventilator; a ventilator or other device for generating an air flow; and finally other pipes for transferring air with airborne particles to the exterior of the workplace.

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- Apply the localised vacuuming point at the source of the dust generation to trap dust. Seal off the dust source as hermetically as possible to prevent airborne spread.
- The localised vacuuming point must be connected to a suitable dust extraction unit (such as a bag filter or cyclone).
- Do not allow workers to remain in a position between the source of exposure and the localised vacuuming point, as this places them in direct contact with the flow of contaminated air. The position of workers on site must be monitored periodically and instructions must be made clear.
- As far as possible, locate the work area away from doors, windows or transit zones so as to avoid air currents that may interfere with localised vacuuming points and cause dust to spread.
- Always ensure that clean air enters the workplace to replace extracted air.
- Pipes should be as short and as simple as possible; avoid long, complicated and flexible sections.
- Discharge extracted air in a safe place away from doors, windows and air ingress zones.

GENERAL VENTILATION OF WORKPLACES

A good general ventilation system should be in use at all times, as silica dust is very fine and may remain airborne for various days.

Ensure that the building is suitably ventilated, and if necessary use forced ventilation. Ensure that ventilation systems do not cause accumulated dust to blow away and extend to clean areas.

Foam dust suppression, in which a liquid or foam is applied to the surface of the dustgenerating material can be used to avoid airborne dust from entering entrance or exit routes or transit areas.

Emissions from dust extraction systems used in buildings must comply with local environmental legislation.



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PERIODIC CONTROL AND MAINTENANCE

Maintain equipment in good working order at all times and follow the recommendations of the equipment supplier manual.

Clean equipment regularly, at least after Never modify any parts of an operational each shift. Do not clean dusty areas with dry system. If modifications are required, sweeping or with compressed air. Do not contact the original supplier to ensure that allow dust deposits or waste dust to dry the system can preserve its CE labelling, or before cleaning.

Maintain local vacuuming points in good inspection and risk evaluation. Ensure that working order at all times and follow the you have received and safely stored a user recommendations of the equipment supplier instruction manual and diagram of the or installer. Fans, blowers or ventilators that system installed. This should include a operate noisily or with excess vibration may report on the installation clearly showing the be indicative of faulty operation. air flows from all ingresses, the air flow rate Always replace consumables (filters, etc.) in through pipes and the air pressure at accordance with the manufacturer's cleaners or filters. Contact your supplier to instructions. obtain information on the performance as foreseen for the local vacuuming unit. At least once a week, visually inspect the Safeguard this information for comparison equipment for possible signs of damage, with future inspection and testing and and if in constant use, check more often.

CLEANING

Clean equipment daily, at least once before leaving. Clean the work area daily. Use wall or floor surfaces that can be easily kept clean and do not absorb or accumulate dust. Clean floors and other surfaces regularly. Also clean all storage facilities and the deck outlet. Use water or vacuum cleaning methods. Do not clean with a dry brush or compressed air, as this will greatly increase the level of exposure. Deal with spills immediately. Do not allow dust/debris deposits to dry out before cleaning.

If vacuum cleaning systems are to be used for large volume spills of dusty material, hoovers should be specially designed to prevent overloading or blockage.

Where wet or vacuum cleaning is not possible and dry brush cleaning must be used, ensure that workers wear appropriate personal protective equipment and that measures are taken to prevent crystalline silica dust from spreading outside the work area.

Where necessary, prevent dust from spreading to the different levels of the building: use compact floors and cover them with a wear-resistant and colourful material that highlights dust contamination. Control panels can be protected from dust by using plastic or similar membrane protection. When using water cleaning methods, ensure that there are an adequate number of properly located water supply points.

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



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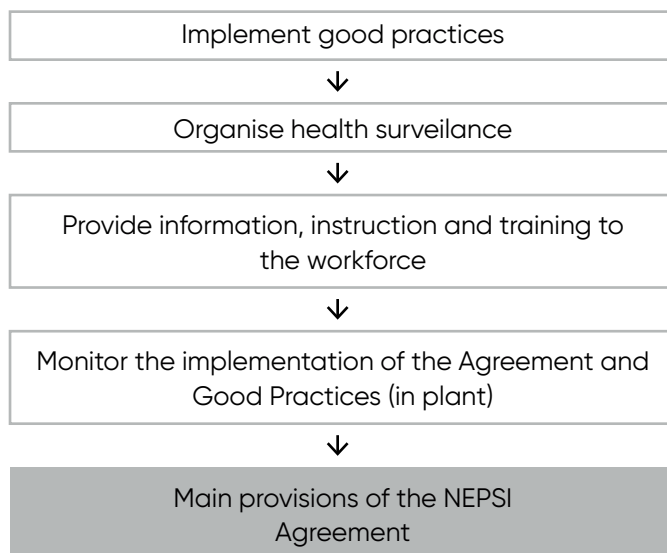
DUST MEASUREMENT

Perform risk evaluations regularly to determine if existing controls are in place and appropriate. Static and personal measurements should be used jointly, as they are complementary. It is up to the experts designated by the employers and the employees' representatives to opt for the most adequate solutions, while respecting the provisions.

The sampling strategy, equipment to be used, analysis methods, etc. should be dry cleaning process must be used, ensure that all workers involved wear appropriate personal protection equipment and that steps are taken to prevent crystalline silica dust from extending outside determined by experts in occupational hygiene.

Full documentation on the risk evaluation and monitoring programme must be safely kept and a quality system implemented, as above. All personnel involved in sampling activities must give a good example and wear suitable respiratory protection in the required areas.

Carry out an INITIAL RISK ASSESSMENT of exposure to Respirable Crystalline Silica (RCS) at the workplace



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OTHER RISKS: CUTTING, FLYING PARTICLES, NOISE, LOAD HANDLING.

When using or working with COMPAC TECHNOLOGICAL QUARTZ, workers may be subject to certain hazards such as: blows and cuts from tools, risk of flying particles, exposure to noise, vibrations, and load handling.

- Act in accordance with risk evaluations performed by experts in health and safety.
- Use appropriate tools for each task and maintain them in optimum working conditions.
- Use protection equipment required at each time: respiratory protection mask, gloves, eye goggles, ear protection and high visibility jacket in loading and unloading areas.
- When handling slabs, workers must always wear a helmet as well as other protection equipment.
- Ensure that all slab storage stands have safety bars that prevent slabs from falling off when being lifted or lowered. Safety bars should fit in all stands, in warehouses and also on trucks.
- Workers handling cranes, mobile cranes or forklifts must be appropriately trained.
- Inspect cranes, mobile cranes and forklifts every day for proper operation.
- Have a qualified professional perform spot checks on cranes, mobile cranes or forklifts in accordance with regulations and the manufacturer's instructions.
- Have a qualified electrician perform regular inspections of electrical installations in accordance with regulations and the manufacturer's instructions.
- Use mechanical means to transport pieces or heavy materials. As far as possible prevent workers from handling and transporting weights above 20kg by hand or using unusual postures; avoid repetitive movements as well.

WORKTOP INSTALLATION

Worktops should be delivered with all operations ready-made so as to avoid finishing operations on site. Precise kitchen measurements should be made before shipment.

Should worktops require retouching in the home, it is recommended to perform these operations in a well-ventilated place (terrace, balcony, etc.) and as far as possible using wet processes. For these operations, personal protection equipment must be used: type-P3 respiratory protection against crystalline silica particles, goggles and ear protection.

If re-touching operations are performed using dry processes, the safety measures are the same, with additional support from a portable dust vacuum system.

To handle pieces, use manual suction cups or similar.

For grouting in joins, back splashes, plinths, etc. with products such as Solumastik, Colorsil, solvents, etc. use latex gloves and appropriate filters for organic vapours or combined filters.

As far as possible, avoid creating dusty atmospheres, and to finish the installation, all remains of dust should be collected and removed, and the worktop must be thoroughly cleaned.

PERSONAL PROTECTION EQUIPMENT (PPES)

In work areas or at workstations where risks cannot be totally eliminated, wearing personal protection equipment is compulsory, and these areas must be clearly indicated with the appropriate signs.

Personal protection equipment must comply with current EC safety and health standards in respect of design and manufacture. The company is responsible for supplying all personal protection equipment, which must bear the EC mark.

Respiratory protection against silica must be type P3. Bear in mind that facial hair may reduce the effectiveness of a face mask. Operators with facial hair must be equipped with respirators or other alternative equipment.

When PPEs are used, a company programme should be implemented covering all aspects of equipment selection, use and maintenance.

When more than one PPE is being worn, ensure that all equipment is fully compatible.

Check the effectiveness of all respiratory equipment before use. Consult with the supplier as to appropriate adaptation methods.

Safeguard all registers of delivery of personal protection equipment to workers. Provide for safe and clean storage areas for PPEs when not in use.



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HYGIENE STANDARDS

Provide a place for storing worker clothing. Clean clothing should be kept separately from work clothing.

Work areas must have toilets, showers and washbasins, as well as personalised lockers. Workers should not eat before washing faces and hands and changing out of their work clothing.

Mark off a specific clean area where workers can prepare food, eat and drink away from their workstations.

Provide workers with a sufficient amount of clean work clothing, including changes as required.

Workers handling products with silica dust must wear overalls manufactured in fabric that prevents dust absorption.

Do not use compressed air to clean off work clothing. Workers must not smoke inside buildings. para limpiar la ropa de trabajo. Los trabajadores no deben fumar dentro de las instalaciones.

WORKFORCE TRAINING AND INFORMATION

Ensure that all personnel receives training on the risks associated with working with COMPAC technological quartz .

Newly admitted workers should participate in training sessions that cover all aspects of safety and health, including the employer's safe work procedures for handling hazardous substances such as respirable crystalline silica.

Use a variety of training methods including visual aids, videos, group discussions and documents.

Worker knowledge levels must be evaluated after each session to ensure that training information has been properly assimilated.

Training sessions should be programmed regularly to keep workers up to date on all aspects of health and safety at work.

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Inform workers of the consequences of working with respirable crystalline silica dust on their health and safety, as well as other aspects related to this activity, such as noise and other risks.

Specifically, provide information on:

- The good practices they should use at the workplace and safe work procedures to be followed.
- When and how to use respiratory protection equipment (RPEs) or any other personal protection equipment (PPEs).
- Dust control programmes and other corrective measures in place.
- The safety data sheets for the materials being used. The equipment, machinery and tools to be used at the workplace.
- The equipment, machinery and tools to be used at the workplace.

If the measurement of a worker's occupational exposure limits to crystalline silica exceeds the maximum, detailed information should be given to the worker on the results of his or her personal health surveillance.

Participation in training session shall be obligatory. Participation in training sessions must be documented and these register must be appropriately safeguarded.

Workers should be asked for their appraisal of each training session so as to assist in organising future sessions.

HEALTH SURVEILLANCE

Worker health surveillance must bear in mind all those workplaces where people are exposed to silica.

Specific health surveillance protocols must be drawn up and applied for exposed workers.

- Spirometry
- X-rays
- Frequency
- High resolution tomography

In some countries health controls must be made before the worker signs an employment contract. Get accurate information on your country's situation in this regard.

As usual, all companies must comply with all laws and regulations of application.



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WARNING

Manufacturers and installers agree to comply at all times with all standards, regulations, ordinances and laws governing the application, handling, storage, manufacture and processing and removal of waste products in respect of COMPAC TECHNOLOGICAL QUARTZ. In particular, manufacturers and installers must carry out regular evaluations of the risks involved in all jobs to be performed and adopt the necessary measures to control and minimise said risks.

Manufacturers and installers accept and understand that using COMPAC materials, particularly dry cutting, involves the risk of airborne particles, among which is respirable crystalline silica, which can cause silicosis and other respiratory diseases. COMPAC strongly encourages installers of our products to take all necessary precautions, in cutting, shaping, grinding and polishing these products using wet processes, to reduce the risk of inhalation of airborne dust and silica particles so as to prevent silicosis.

TECHNICAL ADVISORY SERVICES REPORT

The recommendations and advice given in this document are for information and guidance purposes only, intended for the implementing of organisational, technical and personnel measures as appropriate. In no case can they be construed to replace or substitute the legal obligations in health and safety matters as provided for in the legislation of each country; nor do they replace any other measures for risk evaluation, corrective action planning, specific technical advice or reports, training and information activities, preventive medicine, etc., which all correspond to the worker health and safety departments of companies or their outside consultants on these matters.