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Key aspects

• SAFETY ABOVE
• ALL ELSE: BEST
• PRACTICES GUIDE FOR
• PREPARING COMPAC
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1. SAFETY ABOVE ALL ELSE: BEST PRACTICES GUIDE FOR PREPARING COMPAC TECHNOLOGICAL QUARTZ COUNTERTOPS

1. Safety above all else: Best Practices Guide for preparing COMPAC Technological Quartz countertops

This section provides information and recommendations on safety and health matters relating to the processes of cutting, preparing, polishing and installing COMPAC Technological Quartz.

It is the obligation of the quartz worker or installer to comply with the applicable legal Safety and Hygiene requirements in force in the country of application.

Quartz workers and installers accept and understand that using these materials, particularly when 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.

1.1. Information on safety and health related to respirable crystalline silica (SiO₂)

Respirable crystalline silica is a basic component of soil and rock, 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 reduction of air-borne silica dust.



STOT RE 1

H372 HAZARD/STOT RE 1: Causes damage to lungs through prolonged or repeated exposure (inhalation).

PREVENTION

P260 Do not breathe dust generated by cutting, grinding or polishing this material.

P264 Wash hands and face thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P284 Wear respiratory protection (P3).

FIRST-AID

P314 Get Medical advice/attention if you feel unwell.

P501 Dispose of waste in accordance with local regulations.



1. SAFETY ABOVE ALL ELSE: BEST PRACTICES GUIDE FOR PREPARING COMPAC TECHNOLOGICAL QUARTZ COUNTERTOPS



Preparers and installers of COMPAC Technological Quartz must comply as a minimum with all the laws and regulations related to employee safety and health. In addition to the information contained in the present Guide, it is recommended that quartz workers and installers of COMPAC Technological Quartz are thoroughly familiar with the information provided by the European Network for Silica (NEPSI) and their Good Practices Guide for handling silica, as well as with The US Occupational Safety and Health Administration's (OSHA's) National Emphasis Program - Crystalline Silica.

Visit <http://nepsi.eu> and www.osha.org for more information.

The instructions provide information and guidance on:

- Access to the workplace.
- Machinery and equipment with water supplies.
- Localised extraction and filtering systems.
- General ventilation of workplaces.
- Periodic control and maintenance.
- Cleaning methods.
- Dust measurement.
- Other risks: cutting, flying particles, noise, loads.
- Hygiene standards.
- Personal protection equipment.
- Countertop installation.
- Workforce training and information.
- Health Surveillance.



1.2. Preventive measures

1.2.1. Access to the workplace:

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

1.2.2. Cutting machinery and manual 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 jobs involving cutting, preparing, 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 connectors to electric tools and equipment must always be used. Workers working in wet areas must also always wear rubber boots.



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1.2.3. Localised extraction and filtering systems

It is essential to have specialised engineering services on hand for the design and installation of dust extraction systems.

The design must include the following elements: an extractor hood, an inlet and compartment allowing for the collection and safe storage of contaminants, pipelines to evacuate contaminants from work areas; a filter or other air cleaning device, normally placed between the hood and the fan; a fan or other device for generating a suitable air flow; other pipes for supplying clean air to the workplace.

The following considerations must be taken into account when planning the installation:

- Apply a 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.

1.2.4. 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 dust-generating 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.

1. SAFETY ABOVE ALL ELSE: BEST PRACTICES GUIDE FOR PREPARING COMPAC TECHNOLOGICAL QUARTZ COUNTERTOPS

1.2.5. 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 each shift. Do not clean dusty areas with dry sweeping or with compressed air. Do not allow dust deposits or waste dust to dry before cleaning.

Maintain localised vacuuming points in good working order at all times and follow the recommendations of the equipment supplier or installer. Fans, blowers or ventilators that operate noisily or with excess vibration may be indicative of faulty operation.

Always replace consumables (filters, etc.) in accordance with the manufacturer's instructions. Never modify any parts of an operational system. If modifications are required, contact the original supplier to ensure that the system can preserve its CE labelling, or have a qualified professional undertake an inspection and risk evaluation. Ensure that you have received and safely stored a user instruction manual and diagram of the system installed. This should include a report on the installation clearly showing the air flows from all inlets, the air flow rate through pipes and the air pressure at cleaners or filters. Contact your supplier to obtain information on the performance of localised extractors. Safeguard this information for comparison with future inspection and testing and results. At least once a week, visually inspect the equipment for possible signs of damage, and if in constant use, check more often.

1.2.6. Cleaning

Hazardous dust is dust that contains fine particles that are easily airborne and may remain in this state for various days. This is why it is important to implement a suitable cleaning programme on site.

Clean equipment every day, at least once at the end of each shift. Clean the workplace daily. Use wall and floor surfaces that are easily cleaned and maintained and make dust accumulation difficult. Clean floors and other surfaces regularly. Clean all storage facilities and roof or wall extraction areas regularly. Use cleaning methods with water or vacuuming (extractor) systems. Do not clean by sweeping with dry brooms. Do not use compressed air, as this increases exposure levels dangerously. Clean spills immediately. Do not allow dust deposits or waste dust to dry before cleaning. If vacuum cleaning systems are to be used for large volumes of dusty materials, these vacuuming systems must be designed specifically to avoid overloading or blockage. If it is not possible to use a wet cleaning or vacuuming process, and a 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 the work area.



1. SAFETY ABOVE ALL ELSE: BEST PRACTICES GUIDE FOR PREPARING COMPAC TECHNOLOGICAL QUARTZ COUNTERTOPS

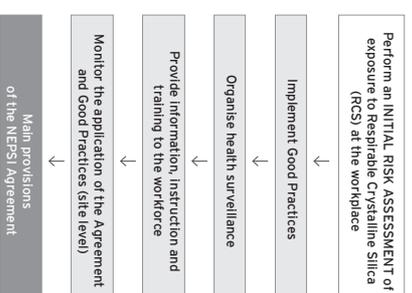
When necessary, prevent dust from spreading to other levels of the building; use compact flooring and cover these with materials resistant to wear, with a colouring on which dust is visually noticeable.

Control panels or buttons may be protected from dust by using plastic or membranous protections. When using cleaning methods with water, ensure that there are a suitable number of appropriate water supply outlets and that these are correctly located around the work area.

Also ensure that there are a suitable number of appropriate vacuum connections when a centralised vacuum cleaning system is used.

1.2.7. Dust measurement

Perform risk evaluations regularly to determine if existing controls are 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 national and EU provisions. The sampling strategy, equipment to be used, analysis methods, etc. should be 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. The dust measurement protocol must be implemented regularly. Consult the NEPSI Agreement.



1. SAFETY ABOVE ALL ELSE: BEST PRACTICES GUIDE FOR PREPARING COMPAC TECHNOLOGICAL QUARTZ COUNTERTOPS

1.2.8. Other hazards

When preparing and installing COMPAC Technological Quartz, workers may be subject to certain hazards such as: blows and cuts from tools, projection of 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 professional perform regular checks on electrical installations in accordance with regulations and the manufacturer's instructions.

-Use mechanical means to transport quartz pieces or heavy materials. As far as possible prevent workers from handling and transporting weights above 20 kg by hand or using unusual postures; avoid repetitive movements as well.

1.2.9. Personal protection equipment

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.

1. SAFETY ABOVE ALL ELSE: BEST PRACTICES GUIDE FOR PREPARING COMPAC TECHNOLOGICAL QUARTZ COUNTERTOPS

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.

1.2.10. 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.

1.2.11. 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.

1. SAFETY ABOVE ALL ELSE: BEST PRACTICES GUIDE FOR PREPARING COMPAC TECHNOLOGICAL QUARTZ COUNTERTOPS

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:

- Good practices that should be implemented at the workplace and safe work procedures to be followed.
- When and how to use respiratory protection equipment (PPEs) or any other personal protection equipment (PPEs).

-Dust control programmes and other corrective measures in place.

-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.

1.2.12. 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.

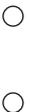
- Spirometry
- X-rays
- Frequency
- High resolution tomography

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.

NECESSARY MACHINERY AND TOOLS

2. NECESSARY MACHINERY AND TOOLS



2. Necessary machinery and tools

For proper preparation and shaping of a quartz countertop, the following machinery or working tools are required:

Minimum equipment:

- Bridge cutter equipped with cutting discs for quartz agglomerates.
- Edge polishers.
- Pneumatic machines with a water supply for manual re-touching operations: manual and radial polisher.
- Air compressor.
- Levelling suction pads.
- Crane or forklift equipped with approved accessories for lifting quartz slabs.
- Suitable extraction and ventilation systems at the workplace.
- Water recycling system.
- Racks for slab storage.



Optional equipment (advanced):

- Numerical control machinery (CNC).
- Water jets.



HANDLING, TRANSPORT AND STORAGE

3. HANDLING, TRANSPORT AND STORAGE



3. Handling, transport and storage

Once materials have been supplied to the customer, it is the responsibility of the customer to store them in suitable conditions to protect their properties. These conditions are:

- COMPAC quartz slabs should never be stored out-of-doors: they must be stored in a covered area, protected from the sun, rain and ambient conditions. Store in a dry and ventilated place.
- Slabs should not be covered with canvas or plastic.
- Slabs must be stored in a vertical position. Slabs should be stored in such a way that bending and breakage are prevented. Racks for storing slabs must be formed with at least two crossbeams, with a minimum angle of 15° to the vertical, a minimum height of 1.3 m. and a minimum distance between beams of 1.8 m. The support area in contact with slabs or pieces on trestles should always be covered with a non-scratch material (wood or Teflon).
- Vertical trestles can also be used for storage. The maximum number of slabs to be stored in each of the gaps formed by the vertical storage stands depends on the thickness of the slabs. An approximate number of quartz slabs sized 20 mm thick is 15-20, but the manufacturer's specifications for the vertical stand should be consulted first.
- Slabs should be stored on flat surfaces to prevent the edges from breaking or chipping.



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APPLICATIONS
OF COMPAC
TECHNOLOGICAL
QUARTZ

4. APPLICATIONS OF COMPACT TECHNOLOGICAL QUARTZ



4. Applications of COMPACT Technological Quartz

COMPACT Technological Quartz is only suitable for indoor use. This material is not suitable for use out-of-doors.

In addition to kitchen countertops and bathroom vanity unit tops, COMPACT Technological Quartz can be used together with furniture, as a wall cladding, or tiling for floors, stairs and other uses, either vertical or horizontal, but only indoors.



WORKTOP DESIGN CRITERIA

05.
Worktop
design criteria

5. WORKTOP DESIGN CRITERIA



5. Worktop design criteria

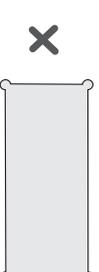
The following considerations must be borne in mind when designing a countertop so as to prevent possible cracking or breaking.

5.1. Internal radii should always be rounded

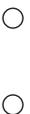
To avoid excess stress and prevent breakage at these points, it is necessary for inserts to be made in the worktop surface using a drill first, as shown in the figure below, to ensure that insert inside corners do not have a radius under 1 cm.



Cuts should never cross each other. Corners must always be cut with a pre-drilled hole at the edges, to create rounded corners, with no cross-axis cutting, as this causes stress points on the slab that may cause the material to fracture.

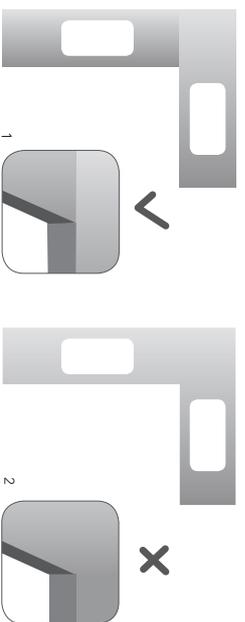


Do not cross cuts in gaps or column areas. Edges must always be rounded, never square.



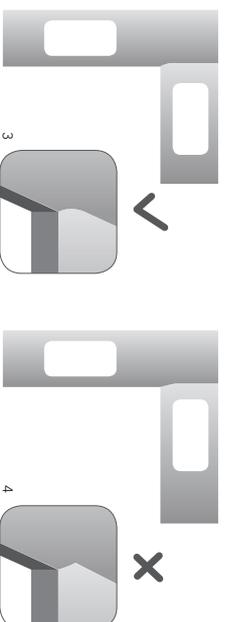
5. WORKTOP DESIGN CRITERIA

To make a countertop in L-shape or U-shape, the angle must be rounded to a radius of at least 3 cm. Should this not be possible, for example in the case of mitred countertops, it is recommendable to use a bracket on the inside angle between the parts of the countertop.



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05.
Worktop
design criteria



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During the making of a countertop, you should never join two straight cuts going in different directions. This is to avoid stresses focusing on the points closest to the intersection of two cuts, which may cause the material to fissure more easily. The right kind of cut is shown in pictures 1 and 3; wrong cutting in pictures 2 and 4.

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THE SURFACE COMPANY

5. WORKTOP DESIGN CRITERIA

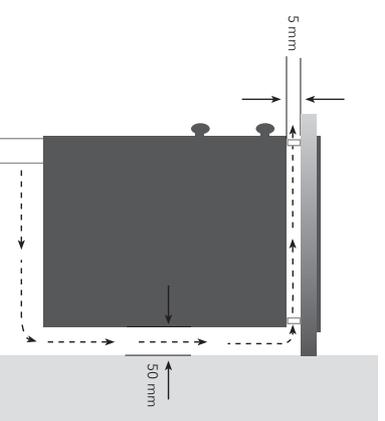
5.2. Joint positioning

If the distance between the joint and the recess made in the countertop is greater than 15 cm, the area requires additional support. The best way is to ensure this is for all joints to coincide with the underlying kitchen furniture support.

5.3. Ventilation in kitchen hobs and built-in appliances.

Do not fit dishwashers and/or washing machines under the countertop. If necessary, leave a sufficient gap (at least 2-3 cm) to allow heat to dissipate.

For induction plates to be installed on a Technological Quartz countertop, bear in mind the minimum distance for cut-outs from the side wall to ensure an adequate opening at the rear wall of the furniture to allow for air recirculation from the hob (minimum 50 mm). For induction plates over a drawer, ensure an adequate opening between the top of the drawer and the countertop (at least 5 mm). These measurements may vary depending on the characteristics of the induction plate being used.

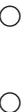
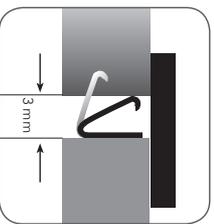
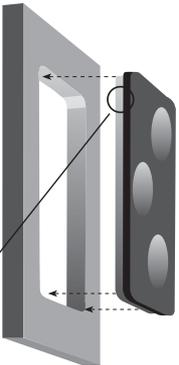


05.
Worktop
design criteria

To place the induction plate or cooker, a minimum separation of 3 mm must be left between the plate and the countertop to allow for possible expansion due to temperature increase. The induction plate must be properly installed as indicated by the manufacturer's technical requirements.

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5. WORKTOP DESIGN CRITERIA



5. WORKTOP DESIGN CRITERIA

Should the distance from cut-out to the countertop edge or joint be less than 150 mm, this specific area should be supported from below by the kitchen cabinet frame. If this is not possible, a reinforcement should be placed underneath.



5.6. Perimeter expansion joints

Always leave an expansion joint between the edges of the countertop and the wall. This joint serves to absorb dilation of the material due to changes in temperature. This joint should have a minimum width of 3 mm. This minimum distance must be maintained all around the perimeter of the countertop, including corners.

5.7. Countertop overhang

For overhanging edges of countertops, the following recommendations must be taken into account depending on the thickness of the material being used.

Countertop: 12 mm thick	Countertop: 20 mm thick	Countertop: 30 mm thick	Support required
<50 mm	< 300 mm	< 400 mm	Not required
50 - 100	300-500	400-600	Brackets every 600 mm lengthwise
> 100 mm	> 500 mm	> 600 mm	Columns, panels or legs



5.4. Distance from cooking flame to wall cladding

COMPAC Technological Quartz can withstand moderately high temperatures for short periods of time. In case of prolonged exposure to heat, the colouring of the material may start to change, and other faults may occur.



Similarly, it is not recommendable to place very hot objects on the surface of the countertop. When the countertop is abutted against a wall clad using technological quartz, a minimum distance between the cooking flames and the surface of the wall cladding should be observed, to prevent hot utensils from touching the wall and causing deterioration over time.

In the case of electric cookers, the distance from the end of the cooking ring to the wall must be at least 50 mm. The minimum distance for gas cookers should be 200 mm.

5.5. Minimum distance between cut-out and countertop edge

For cut-outs (for the installation of sinks or kitchen hobs) a minimum distance of 60 mm should be left between the cut-out and the edge of the countertop. The larger the distance, the more resistant this area will be.



INITIAL PREPARATION

06.
Initial
preparation

6. INITIAL PREPARATION



6. Initial preparation

6.1. Countertop measurement

Base furniture for the countertop must be in place for correct measurement. Check that all top surfaces are level.

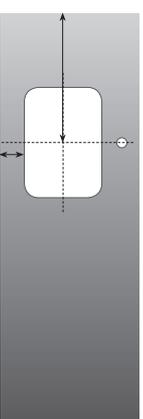
First measure the long front part of the furniture and the long rear part of the furniture. If the countertop is to be fitted between two walls, deduct about 4 mm for easy placement of the countertop. This small gap will be covered later by the back splash or wall cladding. Measure the width of the two ends of the furniture on which the countertop is to stand. Add two centimetres to this measurement for the overhang.

Use an angle measuring device to get the correct angles of the countertop.



Indicate the countertop edges that will be visible and therefore have to be polished.

Indicate the holes for placing the sink or cooking hob. To measure these, take one side as a reference and indicate the distance to the centre of the sink or hob. The other reference is the distance between the long side the countertop and the edge of the sink or hob. Indicate the sink measurements and define if it recessed under the countertop or sits on top, so the edges can be polished or not. If recessed underneath, bear in mind the overhang to be given to the countertop over the sink, which should be 5 mm per side. Indicate the radius of the angles.



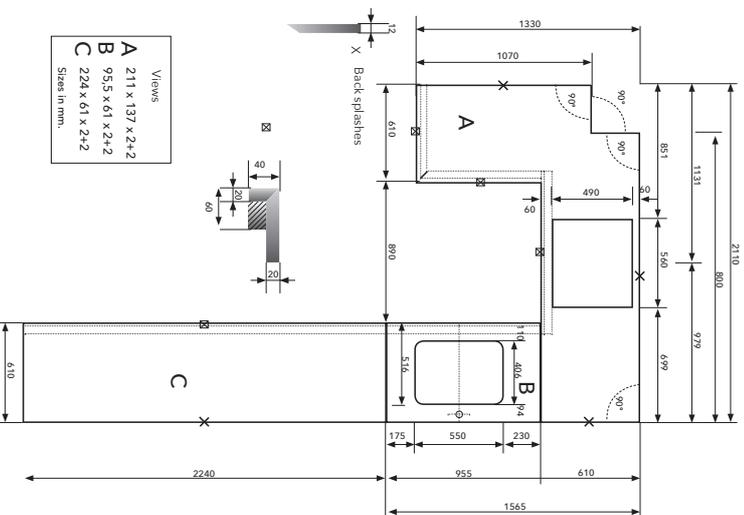
Indicate the diameter required and the point where the plumbing fittings have to be placed.

If the countertop has edge extensions (thicknesses), a strip of quartz as thick as the thickness has to be placed on the back of the countertop so it can rest on the furniture base and ensure the countertop is level.



6. INITIAL PREPARATION

Here is an example of this:



Views	Dimensions (mm)
A	211 x 137 x 2+2
B	95.5 x 61 x 2+2
C	224 x 61 x 2+2

Slices in mm.

Templates can also be used for countertop measurement purposes.

6. INITIAL PREPARATION

6.2. Inspection of materials

All slabs supplied by COMPAC are rigorously inspected at our facilities to ensure compliance with quality criteria; nevertheless, it's the responsibility of the quartz worker to perform a visual inspection before starting work on a countertop.

To ensure correct verification of any possible defects, the protective plastic cover over the slab must be removed for proper inspection.

Before starting work on slab preparation, the aspects to be verified are:

- Slab tones must be compatible with each other (if more than one slab is needed for the application),
- Design and pattern as per samples and expectations,
- Dimensions are correct (length, width, thickness),
- Absence of defects: contaminations, shadows or poorly polished areas, breaks, cracks, scratches,
- Slab edges are perfect.

It is important to ensure that the slabs to be used for preparing the countertop are compatible in colour and tone, and that they have no visible defects; before being cut or worked in any way. No claims can be accepted for any of the above reasons once slabs have been cut.

Due to the particularities of the manufacturing process and the raw materials used in COMPAC products, they may present small irregularities in the random distribution of quartz grains and slight imperfections. In the event that these irregularities are present, it is the responsibility of the stonemason or quartz worker to decide whether the slabs with such irregularities are suitable or not for the intended application.

The stonemason or quartz worker should save the batch number or numbers of the slabs used for each job, in case they are needed for future reference. This information can be found on the labels on all slabs supplied by COMPAC. To facilitate the task of storing batch numbers, the labels have two peel-off sections that contain all the necessary information and can be removed easily. Below is an example of a label and how to read the label information.

The printed batch number can also be found on the back of each slab.

7. WORKTOP COMPOSITION



7. Worktop composition

7.1 Cutting

The cutting support table for the slab must always be flat and stable. Prior to placement, check to ensure that the surface on which the slab will be placed is in good condition, avoiding unforeseen impediments half-way through a cutting operation. Place the slab-to-base fixing elements in areas close to the cutting line to prevent the slab from moving during cutting.

Always use suitable cutting discs (discs made of harder materials intended for silica, granite or quartz). Before cutting, check that discs are in good condition and are perfectly aligned.

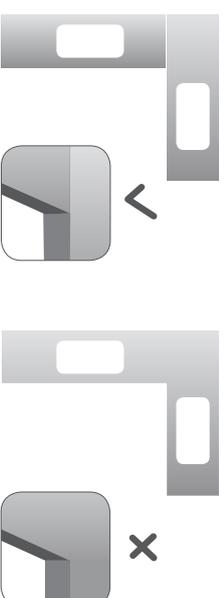
Avoid overheating the slab by using water-cooled tools (the only ones allowed) for cutting, grinding or drilling. It is very important to provide plenty of water at the start of the disc cutting area to prevent the material from deteriorating.

For cutting operations, operators should follow all safety recommendations given by the cutting device manufacturer. It is also mandatory to wear gloves and safety goggles.



7.2. Inner angles

To make a countertop in L-shape or U-shape, the angle must be rounded to a radius of at least 3 cm. Should this not be possible, for example in the case of mitred countertops, it is recommendable to use a bracket on the inside angle between the parts of the countertop.



It is also recommended that all inner angles (holes, square cut-outs for sockets or cut-outs for columns) are rounded to a radius of at least 1 cm. The larger the radius, the stronger the angle will be.



7. WORKTOP COMPOSITION

7.3. Inserts or holes

All angles of inserts must be have a minimum radius of 1 cm. Always avoid cross cuts in these areas, as these may weaken the countertop material.

7.4. Edge polishing

Always use water-cooled tools for edge polishing.

Never polish the surface of the countertop; only the edges.

7.4.1. Manual polishing

Occasionally, it is necessary to re-touch an edge of a countertop during installation.

In these cases, operators should use manual grinding tools using water. These grinders should be equipped with special abrasives that are suitable for our products under wet conditions.



These grinders usually have a speed control. The initial work is usually done at slower speeds, using coarser abrasives (120, for example).

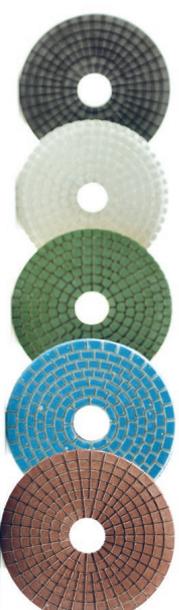
If grinding is done at higher speeds with coarse abrasives, there is a risk of burning the material or scoring it excessively. In no case should grinding speeds be above 3,500 revolutions per minute.

7. WORKTOP COMPOSITION

The grinder should be moved smoothly over the surface to be treated (not be left stationary) and must operate at all times with copious amounts of water.

If hand polishing is to be done on the edges, this must also be performed with cooling devices and abundant water. The correct abrasive process to be used is as follows:

120, 220, 300, 400, 600, Gloss



Note: For dark colours, it is not recommended to use a 600 grit grinder because this abrasive can cause excessive colour loss. If the cut on the cutting table is not very fine, it is recommended to use a 60 grit abrasive first.

Repeating each grit type should be performed one by one with the handheld device without exerting too much pressure on the edge, since the material may be burnt if too much pressure is applied.

7.4.2 Machine polishing

The first thing to consider when using a machine is whether you will be working with a dark or a light colour. For light colours, the pressure should be around 3 bar, and for dark colours, the pressure should be around 2.5 bar.

The recommended process is as follows:

120, 220, 300, 400, 600, Gloss

The sequence and pressures recommended many vary depending on the machine used and the colour of the slab to be polished.

The slab and the worktable should be immobile to prevent movement during polishing.

Always use water-cooled machines to polish the edges, along with diamond resin abrasive pads.

7. WORKTOP COMPOSITION

7.5. Edge machining

Although COMPAC Technological Quartz products have excellent mechanical properties, including excellent flexural strength and impact resistance, it is necessary to avoid machining straight non-bevelled edges, as they can become a weak point and even chip when subject to strong impacts. To avoid this problem, countertop edges should always be bevelled to a minimum of 2 mm bezel.

Edge polishing must always be done using wet methods, with sufficient water flow to ensure proper cooling of the material during the polishing process.

Before starting to polish, either manually or with a power tool, ensure that the surface to be polished is completely smooth and free from any grease or adhesive.



STRAIGHT



ROUND



BULLNOSE



STRAIGHT
Simple
thickened



ROUND
Simple
thickened



BULLNOSE
Simple
thickened



POLISHED
& BEVELLED



COVERED



DOVE
CHEST



STRAIGHT
Dovetailed
thickened



COVERED
Simple
thickened



DOVE
CHEST
Simple
thickened

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7.5.1. Mitred edges

Place the material on the cutting table, with the part to be mitred in contact with the mitre saw blade. Make sure the material is securely attached to the table.

Fit a suitable cutting disc. For marble, discs made in softer metal, for example bronze; for quartz, discs made of harder materials intended for silica, granite or quartz.

Work procedure:

-Adjust the disc angle to 45°.

-Adjust the water flow rate to 50 litres/min.

-Cutting speed: 2 cm slab: from 3 to 4 m/min, 3 cm slab: from 2.5 to 3.5 m/min.

-Monitor cutting and repeat in reverse if a perfect fit is not achieved.

7.5.2 Creating covered edges, bull noses, round and polished edges

Position the piece firmly on a cutting table, preventing movement by means of at least two clamps located on the protruding part.

Mark out the edge to be cut.

GRINDING= Edge-forming: using a manual sanding machine at 4000 rpm with abundant water flow and diamond sandpaper, grain size 60. For polished edges, this step is omitted.

Make quick passes to prevent the material from getting scorched.

FINISHING: Perform the same operations with diamond pads 120, 220, 600, 800 and 1200 grit. For dark colours, it is recommended to use grits up to 600 only, to prevent scorching.

Clean off using compressed air.

7.5.3 Double Edges

To make a double edge it is recommended that the laminated section has the same length as the countertop.

If this is not possible and several pieces have to be joined, this should be done with the top piece cut at an angle of 45°. This picture summarises the recommendations for correct and incorrect installation of double edges.

To prevent the workpiece from moving and facilitate work, it should be fixed to the cutting table using clamps.

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7. WORKTOP COMPOSITION



7. WORKTOP COMPOSITION

The full pack for use by a stonemason or quartz worker consists of:

- Component 1: Caulk cartridge (coloured paste) with polyester resins and mineral fillers in 650 gram format.

- Component 2: Hardener cartridge (PBO catalyst paste) used for catalysing the 60g mastic.

Recommendations for use.



- Mix the mastic with 1-3% of hardener (component 2).
- Avoid wrong hardener doses. Too much or too little hardener may cause tone changes in the product when it catalyses.
- For the first application, it is recommended to use a minimum dose of hardener, depending on the estimated time for subsequent application of the mixture.
- Store in a cool dry place.
- Unhardened FIX COMPAC can be removed from tools and surfaces using acetone. Once cured, this material can only be removed by mechanical means.

Substrate preparation

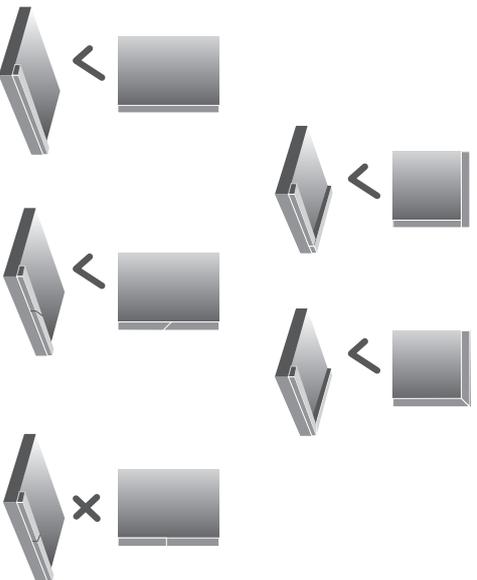
- The application surface should be dry and free of dirt, dust and/or fatty debris.
- The join must always be performed by bonding the roughened sides of the material, i.e. the unpolished sides. If sides to be joined are polished, they must be roughened using a 60 grit disc.
- For rough finishes, it is recommendable to protect the surface where mastic is to be applied using adhesive tape, to make cleaning easier.

Application of the mastic

Mix the two components (1 and 2) to form a uniform mass. Apply the mixture with a spatula on one of the parts to be joined, on the smooth face, and place it over the other face, exerting slight manual pressure and performing a shearing movement to distribute the paste and move any excess to the borders. Accurately adjust the final position of the pieces before drying starts. Leave to cure for a few minutes. Remove burrs with a sharp spatula just as the paste starts to harden.

SHELF LIFE: 12 months with the tube properly closed.

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To prevent damage to the material, the polished side should be facing up, i.e. the non-polished surface should be in contact with the cutting table.

Once the job has been completed, all water must be brushed off the workpiece and it is stored on a pallet, placing cork between each piece to prevent scratching.



7.5.4 Basic recommendations for using FIX COMPAC Thyrotrophic Mastic:

FIX COMPAC Thyrotrophic Mastic is specially formulated for joining pieces of Technological Quartz (mirrors, plinths, sandwich slabs, kitchen countertop pieces, etc.) and for carrying out repairs to materials already in place. After hardening, it can be worked with the same tools and machinery used for Technological Quartz itself.

This product offers excellent adhesion on technological quartz materials, provided the components are applied correctly. It is a product that maintains its high bonding power thanks to its reaction by contact, establishing a strong joint between the mastic and the material.



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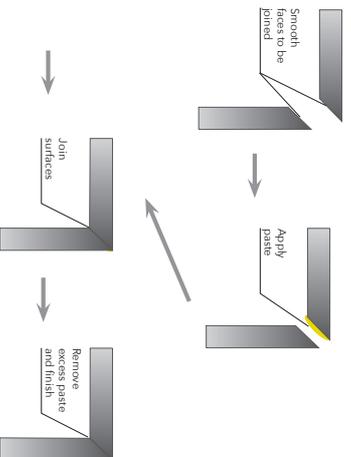
7. WORKTOP COMPOSITION

7.5.5 Wire fixing

The recommended work procedure is as follows:

- Place one of the pieces to be joined on the workbench with the polished face downward.
- Apply FIX COMPAC on the surface to be joined. Then place the second piece to be joined on this bond.
- Adjust the two parts by making rubbing movements to spread the paste over the entire surface. Check the correct positioning of the parts before the paste hardens.
- Leave to cure.
- Pass a spatula over the join and then a cloth dampened with a little solvent to remove remains of paste.
- For bevelling, make gentle passes with a handheld polisher at 4000 rpm with a 400 disc.
- The surface must be cleaned and then polished with wax.
- If a skirt or plinth is to be stuck on an edge, it must be secured with two metal brackets on the underside, attached to the material with FIX COMPAC.

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Worktop
composition



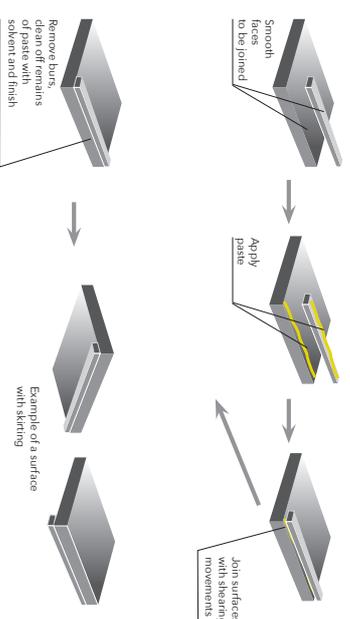
7. WORKTOP COMPOSITION

7.5.6 Filing overhangs

The recommended work procedure is as follows:

- Place one of the pieces to be joined on the workbench with the polished face downward.
- Apply FIX COMPAC on the surface to be joined. Then place the second piece to be joined on this bond.
- Adjust the two parts by making rubbing movements to spread the paste over the entire surface. Check the correct positioning of the parts before the paste hardens.
- Leave to cure.
- Pass a spatula over the join and then a cloth dampened with a little solvent to remove remains of paste.
- For bevelling, make gentle passes with a handheld polisher at 4000 rpm with a 400 disc.
- The surface must be cleaned and then polished with wax.
- If a skirt or plinth is to be stuck on an edge, it must be secured with two metal brackets on the underside, attached to the material with FIX COMPAC.

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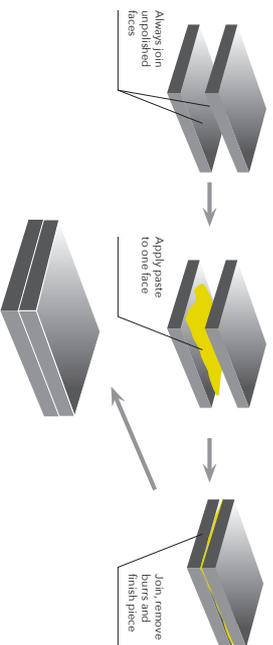
7. WORKTOP COMPOSITION

7.5.7 Sandwich making.

The recommended work procedure is as follows:

- Place one of the pieces on a flat, uniform worktable, polished face down.
- Sand the face to be joined to eliminate roughness.
- Extend FIX COMPAC (pigmented thixotropic mastic) over the entire surface.
- Place fibreglass (to give more support to the material) on top, and check that it is impregnated with mastic. Place the other piece over it from the roughened face.
- Adjust with shearing movements. Remove excess burrs with a spatula.
- Cut about 5 cm away from the top surface to give it a better finish.
- If the sandwich comprises three pieces, the polished face of the central section must be roughened with a disc grit size 60.

For sandwiching panels it is recommended to incorporate a fibreglass mesh between both slabs.



7.6. Waste management

It is the responsibility of the quartz worker to manage the waste generated in the process of preparing Technological Quartz via authorised waste managers in accordance with current legislation in each country.

WORKTOP INSTALLATION

8. WORKTOP INSTALLATION



8. Worktop installation

8.1. Preparing the kitchen units

The kitchen furniture on which the COMPAC Technological Quartz countertop is to be installed should be solid and properly supported on the floor.

They must also be properly fixed to avoid subsequent movement of any kind, and perfectly level to ensure correct installation of the countertop.

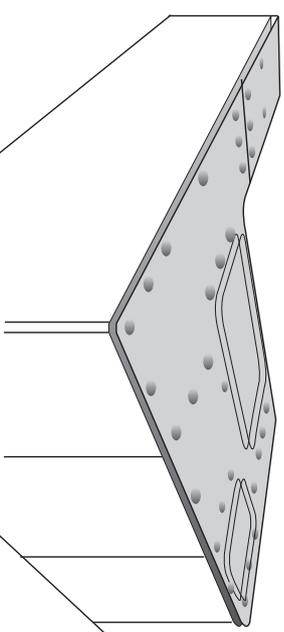
The entire perimeter of the countertop should rest firmly on the kitchen furniture below. Moreover it is recommended to use strut supports every 600 mm. These supports should go all the way from the wall to the front of the countertop. It is also advisable to add additional supports coinciding with the joints on the countertop.



8.2. Worktop installation

To ensure that all countertop parts are perfectly cut to size, before fixing in place, lay them out on top of the furniture units and check for a proper fit.

Apply silicone blocks at regular intervals, as shown in the figure below, to secure the countertop to the furniture units.



8. WORKTOP INSTALLATION

8.3. Joints

For sealing joints, use FIX COMPAC coloured adhesive.

Before applying the adhesive, make sure the surfaces to be joined are dry and free of dust.

Before applying FIX COMPAC, ensure that the surface of the countertop is covered with masking tape, to facilitate subsequent cleaning.

Once the adhesive has been applied, it is recommended to use levelling suction cups for optimum results.

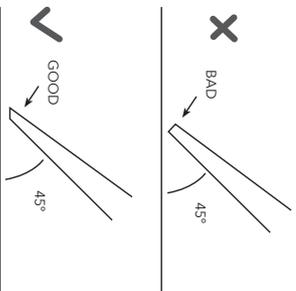
8.4. Fixing back splashes and wall cladding

Cut the cartridge tube to the appropriate diameter and shape for the job at hand. The application of JOINT COMPAC adhesive can be done using an automatic or manual filler gun.

If a visible joint needs to be sealed, use JOINT COMPAC mastic in the same colour as the material. To apply joint silicone, we recommend using a special joint-filler gun.

During application, the gun nozzle should be held in an approximate 45° angle to the gap to be filled. The plastic nozzle of the mastic container should be cut so that it matches the plane where the filling material is to be inserted (see figure).

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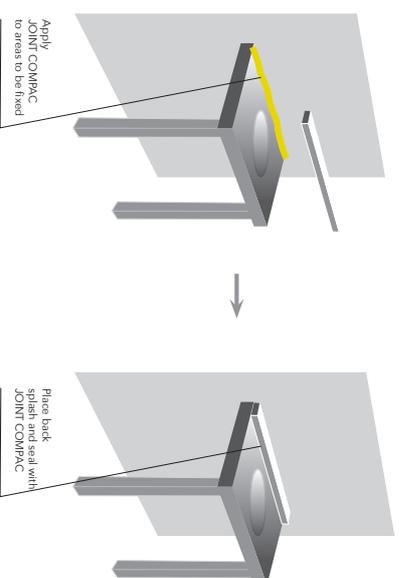


8. WORKTOP INSTALLATION

After application, smooth over the joint with a finger, or with a spatula dampened in soapy water.

To join bases or plinths on kitchen countertops or bathroom vanity units, apply JOINT COMPAC to the back of the piece and exert pressure on the wall, making shearing movements that allow the maximum possible fill against the surface.

Kitchen countertops and bathroom vanity units should be fixed to the wall using JOINT COMPAC. This will prevent possible water leakage that can damage furniture or objects under the material. Use JOINT COMPAC to seal the area between the countertop and the wall, applying a generous amount



08. Worktop installation

8. WORKTOP INSTALLATION

8.5. Sink and washbasin installation

Sinks and washbasins should be installed after the countertop has been fixed, following the manufacturer's instructions at all times.

To seal sink and washbasin surrounds, use JOINT COMPAC coloured silicones.

8.6. Recommendations for using JOINT COMPAC

The JOINT COMPAC adhesive neutral silicone monocomponent sealant is specially formulated for bonding and sealing joints of COMPAC Technological Quartz pieces because it neither stains nor harms supports. It ensures excellent adhesion, permanent flexibility and produces complete watertightness in joints.

JOINT COMPAC is coloured exclusively for COMPAC Technological Quartz products, achieving a homogeneous colour effect between joints and the material.

JOINT COMPAC adhesive is used to join skirting pieces or plinths and seal joints, preventing liquid from penetrating. To join pieces that overhang, such as skirts or mitres, use FIX COMPAC mastic.

This product will keep in good condition for 18 months in its original sealed container. Store in a cool, dry place, between +5° C and +25° C.

If certain areas have sealant stains, this must be cleaned before it dries, as once dry it can only be removed by scraping.

Cure in contact with moisture. Curing time for skin formation is about 10-20 minutes. For application on rough materials, it is recommended to protect the area with masking tape, as this facilitates subsequent cleaning.

08. Worktop installation

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CARE AND MAINTENANCE

09. Care and maintenance

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9. CARE AND MAINTENANCE



9. Care and maintenance

9.1. Initial cleaning of the countertop after installation

After installing a countertop, there are usually remains of mastic or other products used during installation on its surface, so it is necessary to proceed with an initial cleaning operation of the countertop before use.

This is a very important moment, as experience shows that it is at this time that certain operations can adversely affect the countertop and even irredeemably damage it. To avoid damage it is necessary to bear in mind these recommendations:

- - For the installation of countertops, only fillers and adhesives recommended by COMPAC should be used.
- - To soften remains of mastic that may have been left behind on the countertop during installation, use alcohol only. Never use products intended for paint stripping or the like as these can damage the colour of the countertop. It is recommended to protect adjacent areas using masking tape, as this facilitates subsequent cleaning.
- - After applying alcohol on the remains of mastic, leave to react for 30 seconds and then wipe with a clean, white cotton cloth (do not use coloured cloths so they won't leave dyes on the countertop surface). Never use highly abrasive scrubbers for these operations, as they can damage the surface of the countertop, particularly in products with light colours or very fine grain surfaces. For difficult cases, it is preferable to apply alcohol various times rather than to use abrasive scrubbers of any kind.
- - If a spatula or other tools are used to scrape materials free (preferably plastic tools) this should be done very carefully so as not to scratch the surface.
- - Once remains of products used for installation of the countertop have been removed, clean the surface with mild soap (CLEAN COMPAC) and sponge down the entire countertop. Then rinse with clean water and leave to dry.
- - Never use water-repellents or glass highlighters to bring out shine on countertop products, as these create a surface layer that deteriorates over time and may give rise to complaints involving stains or gloss loss.
- - Never polish the upper face of the countertop.

9. CARE AND MAINTENANCE

9.2. Everyday countertop cleaning and maintenance

Our COMPAC Technological Quartz product has a high chemical and stain resistance against common household products and is ideal for use as a kitchen countertop.

In view of these characteristics, Technological Quartz countertops maintain their looks and properties for many years, provided the simple maintenance recommendations shown below are followed:

- Despite the high chemical resistance of Technological Quartz, do not use highly aggressive detergents for daily maintenance (strong acids or alkalis such as caustic soda). Whenever possible, clean with a neutral detergent. In the event an aggressive cleaner for difficult stains must be used, apply over the affected surface in DILUTED FORM, leave to act for one minute ONLY, and then rinse off with water. Section 9.4 shows a table of recommended cleaning products for difficult stains:

- Weak acid solutions can also be used occasionally (vinegar or lemon, for example) to clean off remains of lime scale.

- Do not use organic solvents to clean COMPAC countertops (turpentine, universal solvent, methylene chloride, xylene, acetone, etc.). The only permitted substance is ethanol (alcohol 96°) and always rinse off with water after cleaning.

- Do not use cleaners containing caustic soda on the countertop, or alkaline products, as they may cause chemical attack on the surface.

- Prevent dirt and grime from contacting the surface for long periods. Clean off stains as soon as possible.

- Do not place objects you have just taken off the fire (pots, pans, casseroles, etc.) directly on the countertop. Use surface protectors such as a mat or pad.

- Although COMPAC Technological Quartz is has outstanding levels of abrasion and scratch resistance, it is not indestructible. This is why it is recommended not to cut or chop directly on the surface.

As examples, here are some solutions to common problems:

- Grease stains: Apply a small amount of cleaning detergent directly on the stain, or a cloth and rub until it disappears. Dilute a small amount of detergent in water and rub the stain with a cloth. Rinse abundantly with water and dry.

- Limescale stains: Pour vinegar (or any weak diluted acid) onto the surface of the countertop and leave it to work for 1 minute, then rinse with water and dry off.

- Silicone stains: Use a sharp blade and a little solvent (such as ethanol), rinse with water and dry.



9.3. Cleaning and maintaining glazed surfaces

Since it is actually a matt finish, the Glacé finish is more affected by daily marks left on the surface. Dishes, cups and other commonly used objects may leave marks on the on the countertop, but these can easily be removed by following these tips:

- Use the CLEAN COMPAC cleaning pack, which consists of an ammonia-based detergent and a multi-fibre cloth.

- In case of persistent stains, use Cif Cream.

- If metal objects are frequently slid over the surface of the countertop, marks from metal can be removed using Cif Cream or magic eraser. .

QUARTZ IS VERY HARD, BUT NOT INDESTRUCTIBLE

For daily cleaning it is only necessary to use a mild soap and water on a microfibre cloth or a non-abrasive sponge. See specific cleaning product instructions for this type of surface. Cleaning products should not be left in contact with the surface for longer than 5 minutes.

If the surface is exposed to potentially hazardous products, rinse immediately with water to neutralize their effect.

Do not allow dirt and debris to remain in contact with the surface for long periods of time. Rinse the countertop with water after using cleaning products until they have totally disappeared.

Heat Resistance

COMPAC compacted quartz products are composed of a small percentage of polyester resins and pigments which can react when subjected to temperatures above 70° C, so it is necessary to use a surface protector such as a cloth or pad to prevent contraction or thermal shock which may damage the material.

Scratch Resistance

COMPAC technological quartz surfaces are highly resistant to scratching and abrasion; nevertheless do not use knives or sharp metal objects directly on the surface. Always use protection for cutting, such as a wooden cutting board.



9. CARE AND MAINTENANCE

9.4 Difficult stain treatment

Type of stain	Cleaning
Colorant	
Red wine	
Tomato	Soapy bleach
Coffee	
Turmeric	
Ink	
Marker pen	Soapy bleach
Paint	Alcohol
Rust	Hydrochloric acid (salifuman)
Metal residue from pots, pans and other kitchen utensils	Neutral soap Magic eraser
Oil or grease	Weak de-greaser Alcohol
Shampoo	Alcohol
Make-up	Oxygenated water 30%
Cream	
Limescale	Limescale remover Vinegar
Silicone	
Glue	Alcohol

KEY ASPECTS FOR CORRECT PREPARATION AND INSTALLATION

10. KEY ASPECTS FOR CORRECT PREPARATION AND INSTALLATION



10. Key aspects for correct preparation and installation

The following key points should be taken into account when undertaking a project using Technological Quartz Compac:

If any of these are not complied with, the installation may not be covered by the warranty:

- Kitchen furniture units on which countertops are installed must be adequate to support the weight of the countertop, if not, reinforcement must be used.
- A ventilation space must be created in areas where heat-generating appliances are to be installed.
- The minimum gap between holes or cut-outs and countertop edges to avoid fracturing is 60 mm.
- For L-shaped countertops, a joint must be made at the L-angle.
- All internal radii must be rounded.
- The joints should match the supports of the underlying furniture units and a 3 mm perimeter joint must be left.
- Countertop edges should have a minimum bezel of 2 mm so as to prevent breakage due to impact.

