SURFALITE™

SUPERTHIN SURFACES

3MM

SURFALITE TECHNICAL MANUAL

According to Regulation (EC) n° 1272/2008 (CLP) no risk is associated with the finished SURFALITE® product.

SURFALITE® contains crystalline silica and the respirable dust generated by its processing without adopting adequate safety and protection measures can cause serious illnesses.

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Product Description

What is Surfalite?
Surfalite is an advanced surface series consisting of slabs 7 mm thick, made of a mixture of premium minerals, quartz and recycled materials, created thanks to Santamargherita's long experience and particular attention to research and development. Surfalite has features never seen before in such a thin through body material, including outstanding weight performance.

Why Surfalite?
Lightness, resistance and flexibility are those characteristics that lend to Surfalite versatility and dynamism, opening new possibilities for the use of advanced surface slabs by architects and designers.

The 7 mm thickness of Surfalite allows for the knocking down of logistic limits, and entry into new sectors with revolutionary solutions for design. Its use does not only deal with indoor cladding, it also integrates with new perspectives in terms of decoration and design, allowing for the renovation of daily-use surfaces without the need to replace them.

Dimensions & Weight

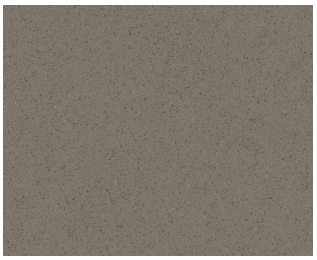
Surfalite is manufactured in slabs cm 330 x 165 x 0,7 (130” x 65” x ¼”).

The weight of Surfalite is 16 kgs/m2, or 3.28 lbs/sq.ft.

Colors & Finishes

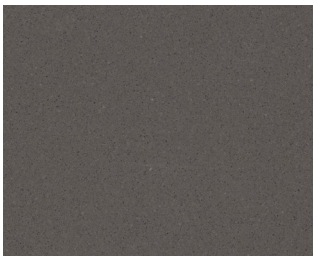
The updated color range of Surfalite slabs is available on www.surfalite.com

Surfalite slabs are offered in polished and silk finishes.



Carnia

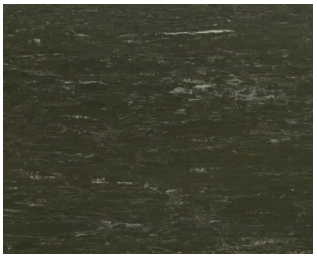
Nero



Caledonia

Istria

Black Nimbus



Dark Moss

Gray Feather

Light Wafer

Sequoia Bark

White Dust

Sand Dunes

White Feather

Aurum Strand

Technical Data Sheet

Product: Surfalite series
Composition: 10-17% resin / 83-90% Blend of selected minerals
Surface finish: polished, silk
Slab size (cm): 330x165
Slab thickness (cm): 0.7

Property	Normative	Value	Note
Apparent Density	EN 14617-1	1950 - 2450 Kg/m3	---
Water Absorption	EN 14617-1	≤ 0,10 %	---
Flexural Strength	EN 14617-2	> 40 MPa	---
Abrasion Resistance	EN 14617-4	27 - 31 mm	---
Frost Resistance	EN 14617-5	KM_{f25} 0,9 - 1,2	---
Thermal Shock Resistance	EN 14617-6	$\Delta m\% \leq 0,07$ %	Test temperature: 70°C
		$\Delta R_{f,25} \leq 20$ %	
Impact Resistance	EN 14617-9	1 - 5 J	---
Chemical Resistance	EN 14617-10	C4	---
Coefficient of Linear Thermal Expansion	EN 14617-11	25 - 65 x 10^{-6} $°C^{-1}$	---
Electric Resistivity	EN 14617-13	$\rho_s \geq 10^{10}$ Ω	Referring to the surface
		$\rho_v \geq 10^{8}$ Ω m	Referring to the volume
Compressive Strength	EN 14617-15	150 - 250 MPa	---
Thermal Conductivity	EN 12524	1,3 W/(m K)	From tabulated values

Worker Safety

Worker safety is fundamental for Santa Margherita SpA, therefore, before you start fabricating Surfalite, please refer to the following documents:

- **“Guide to good fabrication practices”.**
- **“Safety guidelines for fabrication”.**

which will provide you with the necessary information to protect yourself from risks associated with the operations that you are about to perform.

The documents are available on:

https://www.surfalite.com/en/professional/technical-library/

Risk Information Label

Each slab has a safety label with basic information and risks concerning the fabrication.

santamargherita
THE ORIGINAL ITALIAN SURFACE ®

MORE INFO

IT

AVVISO AL PERSONALE

Uso dei Materiali: Superfici in quarzo progettate per piani cucina e bagno, pavimenti, rivestimenti e altri usi architettonici. Composizione (%): Il materiale è costituito da aggregati minerali inorganici (85-95%), tra cui, ma non solo, sabbia silicea, quarzo, cristobalite, vetro ed altri, poliestere (5-15%), pigmenti e additivi (<5%).Nel Regolamento CLP (CE) n°1272/2008 non vi è alcuna disposizione per rischi connessi con il materiale finito SM QUARTZ ®. Tuttavia, durante la lavorazione e l'installazione del materiale, è necessario considerare le seguenti informazioni. Si prega di leggere con attenzione.

LAVORAZIONE ED INSTALLAZIONE

Questo materiale deve essere lavorato utilizzando metodi che comportano l'uso di acqua per evitare la formazione di polvere. La polvere derivata dai processi di produzione contiene Silice Cristallina (SiO2). L'esposizione a lungo termine senza protezioni alla polvere derivata dai processi di lavorazione, taglio e lucidatura, può causare malattie gravi come la pneumoconiosi, la silicosi nonchè il deterioramento polmonare, con malattie come la bronchite, l'enfisema, ecc. I produttori devono rispettare la Normativa Nazionale vigente. Per maggiori informazioni leggere i documenti "Indicazioni di Sicurezza per la Lavorazione" e la "Guida alle Buone Pratiche di Lavorazione". Informazioni disponibili presso **www.santamargherita.net**

EN

WARNING TO STAFF

Use of the material: Quartz surfacing designed for kitchen and bathroom worktops, flooring, cladding and other architectural uses. Composition (%): The material is made up of inorganic mineral deposits (85-95%), including, but not limited to, silica sand, quartz, cristobalite, glass and others, polyester (5-15%), pigments and additives (<5%).
There is no provision for any risk associated with the finished SM QUARTZ® material in the CLP (CE) regulation n°. 1272/2008. However, during manufacturing and installation of the material, it is necessary to consider the following information. Please read carefully.

FABRICATION AND INSTALLATION

This material should be fabricated using methods that involve the use of water to avoid the creation of dust. Dust derived of manufacturing processes contains Crystalline Silica (SiO_2). Long term unprotected exposure to dust derived from the cutting, polishing and manufacturing processes may cause serious diseases as pneumoconiosis, silicosis as well the deterioration of lungs including diseases such as bronchitis, emphysema, etc. Fabricators should comply with all applicable governmental regulations. For specific information on each case, please, read our Safety Indication for Working and Good Practice Guide to manufacture. Information available at **www.santamargherita.net**

FRASI DI RISCHIO E SICUREZZA PREVISTE PER LA FRAZIONE RESPIRABILE DI SILICE CRISTALLINA (SiO_2).		HEALTH & SAFETY INFORMATION ABOUT CRYSTALLINE SILICA (SiO_2) RESPIRABLE FRACTION.
PERICOLI H372: Provoca danni ai polmoni in caso di esposizione prolungata o ripetuta per inalazione		**HAZARD** H372: Causes damage to lungs through prolonged or repeated exposure (inhalation)
PREVENZIONE P260: Non respirare la polvere generata nei processi di taglio, levigatura o lucidatura. P264: Lavare accuratamente viso e mani dopo l'uso. P270: Non mangiare, né bere, né fumare durante l'uso. P284: Utilizzare un apparecchio respiratorio per polveri (P3).		**PREVENTION** P260: Do not breathe dust generated in the cutting, grinding and polishing processes. P264: Wash face and hands thoroughly after handling. P270: Do not eat, drink or smoke when using this material. P284: Wear respiratory protection for particles (P3).
MISURE DI PRIMO SOCCORSO P314: In caso di malessere consultare un medico. P501: Smaltire il prodotto in accordo con le leggi locali.		**FIRST AID MEASURES** P314: Get medical advice/attention if you feel unwell. P501: Dispose of scrap material in accordance with local regulation

Hazard Indications & Pictograms		
H372	**Causes damage to lungs through prolonged or repeated exposure by inhalation.**	
H335	**May irritate the respiratory tract.**	
H350i	**May cause cancer if inhaled.**	

Packing Details

Surfalite slabs are packed, either in:

Wooden Crates

- Dimension: 350 x 175 x 45cm (check dimensions)
- 25 Slabs/crate
- Gross weight: 2300kgs / 5078lbs

Wooden crates are suitable for transport by truck.

Palletized Wooden Bundle

- Dimension: 330 x 175 x 60cm
- 28 slabs/bundle
- Gross weight: 2600kgs / 5740lbs

Palletized wooden bundles are suitable for transport by container. 20' box containers are loaded with 7 palletized wooden bundles for a total of 175 slabs.

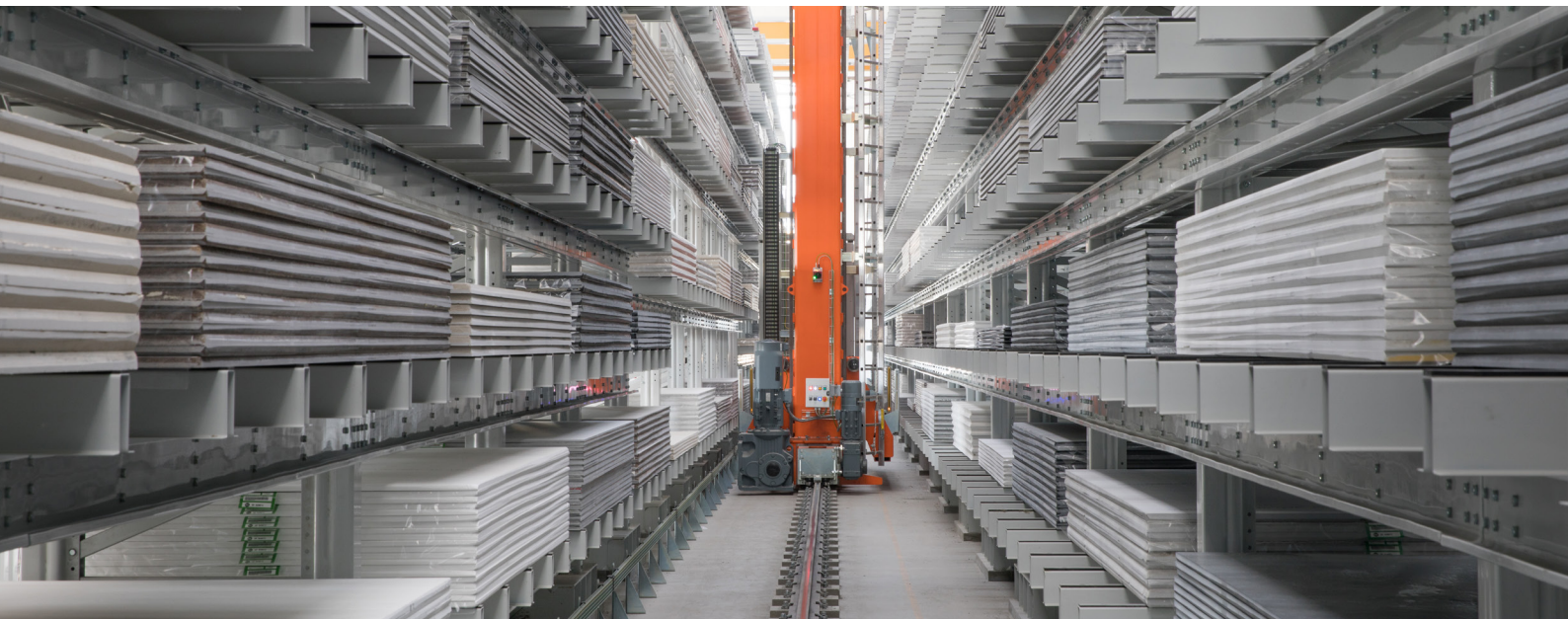
Once received at destination, the palletized wooden bundle is to be flipped and stored flat.

Special A-frames

- Dimension: 330 x 175 x 120cm
- 32 slabs/A-frame
- Gross weight: 2900kgs / 6400lbs

Storage & Handling

The slabs must be kept in a covered warehouse with the finished surface away from direct sunlight so as to avoid any discoloration of the exposed areas.



Slab Inspection

Surfalite slabs are all subject to a careful visual inspection to rule out the presence of defects.

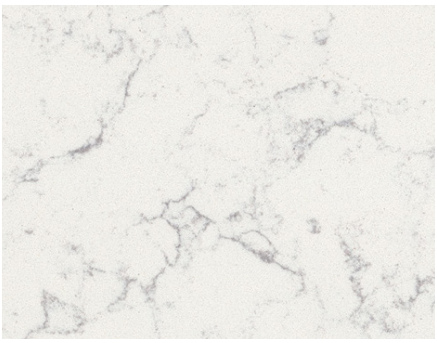
Prior to fabrication, remove the plastic film and inspect the slabs, paying attention to the following criteria:

- No presence of foreign materials;
- No residue of color or mixture of the material produced previously bigger than 3/16";
- No holes, scratches, or cracks;
- No pigment stains larger than 3/16" (only for monochrome materials);
- No dull areas (on polished surfaces).

The back of the slab must have a smooth finish. Surface roughness must not exceed 1/64". Small cracks are allowed in the peripheral area up to 4" from the edges.

Polished surfaces should measure no less than 40 when measured with a Gloss Meter, measuring at 60°. If more than one slab is needed for the project, make sure that they belong to the same production batch and that they match.

Color Consistency
The pattern of Surfalite panels is the result of an innovative manufacturing system employing a specific blend of minerals and polyester resin: as the texture is not printed, but through body, each panel is unique.



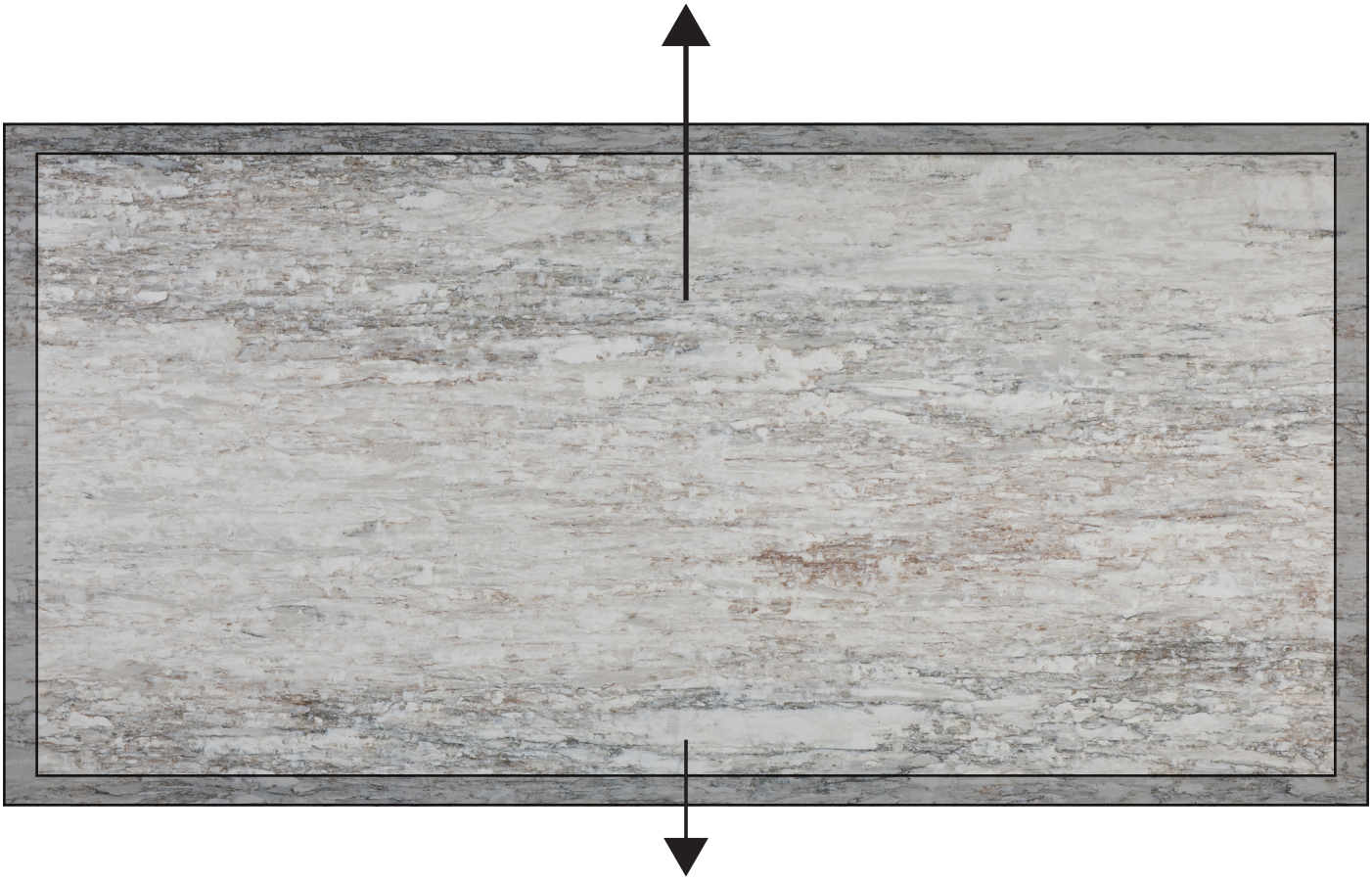
Flatness and Dimensions

Dimensional Tolerances:
- Thickness tolerance (- 1/16” / + 1/64”).
- Flatness tolerance (5/32” in length / 5/32” in width).

Note: the flatness must be measured at the center of the slab itself while in a horizonal position, taking into consideration the entire length and width of the slab (not the diagonal).

The useable surface of the slabs is slightly less than the nominal surface and can vary from slab to slab. If you were to use the entire nominal surface you should carefully check the grey perimeter area shown in the drawing.

Area with guaranteed quality



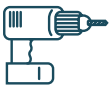
The quality of the grey perimeter is not guaranteed

NOTE : If the fabricator believes the slab is unsuitable it must be replaced before starting work. Santa Margherita S.p.A. will not accept claims for slabs which have been cut or modified from their original condition.

Fabrication Equipment

Personal Protective Equipment
- Safety gloves
- Safety goggles
- Dust mask*
- Steel toe safety shoes
- Hearing protection
- Work clothes

*** Respiratory protection: Suitable respiratory protective equipment with a particle filter as per Regulation EN 143:2001 and its revisions EN 143/AC 2002, EN 143/AC 2005 (type P3), or N95, R95, P95 or superior according to Occupational Safety and Health Standard OSHA 29 CFR 1910.134, approved by NIOSH, P1, P2 protection or higher according to Australian AS/NZS 1716), or equivalent protection that complies with relevant applicable local law.**



Fabrication Tools
The equipment required for the fabrication of Surfalite is the classic type used for fabricating natural stone, with tools designed specifically for polyester resin bonded engineered stones. Below is a list of the equipment commonly used for the fabrication of resin bonded engineered stones:

- Bridge saw
- CNC contouring machine
- Waterjet cutter
- Diamond cutting blades
- Diamond grinding wheels
- Diamond burs
- Forklifts for handling
- Fully supported A-frames, C-shaped pin racks, or flat pallets to store the slabs
- Jib cranes
- Air compressor
- Clamps
- Dust extraction system
- Water treatment system
- Work tables

In case of fabrication with Festool system, please refer to the “General instruction for cutting with Festool” section for the full list of fabrication tools.

*** Whenever cutting with a Festool, always make sure to wear a respirator and do not exceed the maximum concentration of airborne silica in the air.**

New Job

Templating
Template using standard templating material, such as cardboard or wood strips and a hot glue gun.

Cutting the Slabs

Cutting is an important fabrication phase and is affected by several variables:

- The speed rate of the blade
- The revolutions per minute of the blade (RPM)
- The type of blade
- The wear conditions of the blade
- The conditions of the cutter surface
- The shape of the piece to be obtained
- The flow of cooling water
- The cutting surface temperature
- The conditions of the saw head

General tips for cutting:

- Ensure that the work surface is in good condition so that the slab is not able to move during cutting;
- Use blades and tools specifically designed for quartz;
- Check the wear condition of the tools and replace them if damaged or worn;
- Keep an abundant and constant flow of cooling water in the working area of the blade;
- First, make the cuts for the trimming on the two long sides of the slab;
- It is not recommended to plunge the blade into the slab to make the cut. If it is necessary however, sink the blade very slowly;
- The holes for the sink/cook top should be made after all other cutting operations are complete;
- If you do not have a water jet to make the holes for sinks/cook top cut outs and internal angles, then first drill at the corners and then make the cuts;
- Do not change the original surface finish of the slabs;
- Use the cutting parameters recommended by the manufacturers of the cutting tools.

To ensure a clean and consistent cut, the blade's rotation speed (rpm) and the saw's travel speed must be set up according to the guidelines provided by the blade and saw manufacturer(s).

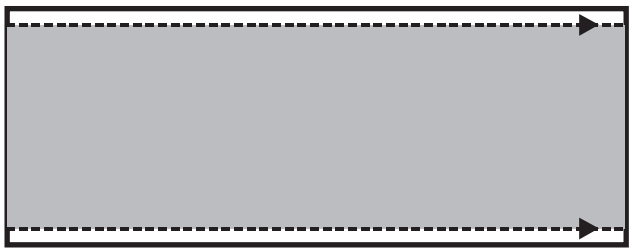
The table below shows indicative values commonly used for cutting.

Disk	Rpm	Feed 90°	Feed 45°	Speed up cut	Slow down cut
Wodiam Pascal 400	**2950**	**Up to 6000 mm/ min**	**2000 mm/min**	**50 mm**	**150 mm**
Italdiamant Evogres 400	**2700**	**2000 mm/min**	**1400 mm/min**	**50 mm**	**150 mm**
Italdiamant Evogres next 400	**3000**	**3000 mm/min**	**1800 mm/min**	**50 mm**	**150 mm**
Diamut dk6 mt6 400	**2800**	**1200 mm/min**	**1000 mm/min**	**50 mm**	**150 mm**
Saw			**Step**		
Italdiamant Evogres incr D20	**8000**	**1000 mm/min**	**1 mm/1.5 mm**	**/**	**/**
Drill			**Step**		
Italdiamant Evogres D35			**straight**	**/**	**/**

NOTE: When fabricating dark materials, avoid the accumulation of water for a long period on the surface. This can cause marks which can no longer be removed. It is therefore recommended to dry the surface quickly.

Cutting the Slabs

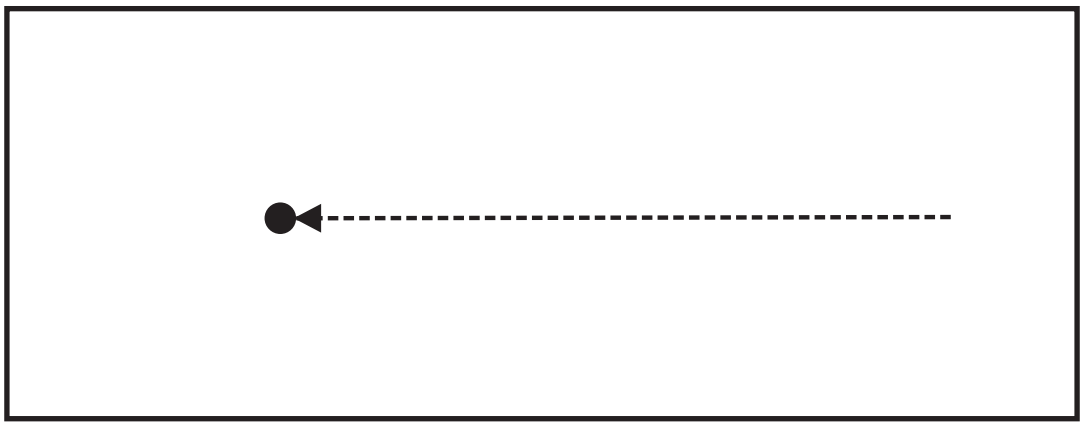
Start by trimming the edges of the slab by 5/8” or more, longer sides first, then shorter sides:



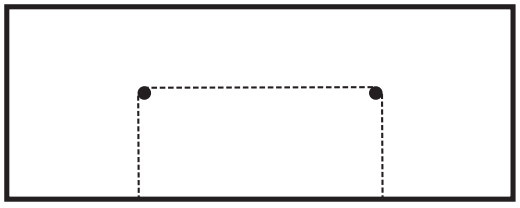
1. Start from the longer sides.

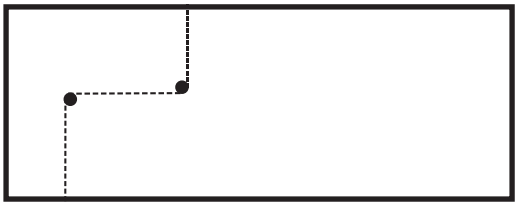
2. Then the shorter sides.

If you need to make a cut by plunging the blade into the slab (plunge cut) drill a hole (Ø 1”/1-1/4”) near the end of the cut and cut advancing towards the hole.



If L-shaped pieces (shape not recommended!) or U-shaped pieces must be made, before cutting, drill the holes (Ø 1”/1-1/4”), where the cut lines intersect, always making the shorter cut first.



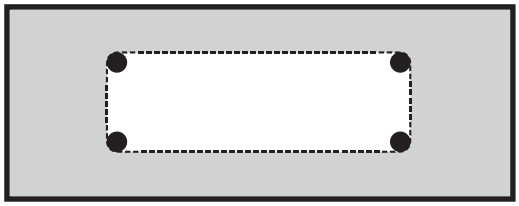


Cutting the Slabs

For square cutouts for sinks and cook tops proceed as follows: drill a hole (Ø 30 mm – 1-1/4”) at the four corners of the square, then cut with a blade the lines between the holes, in a way to leave the corners rounded. If the opening for sinks or cooktop cut outs is made with a CNC machine and finger tool bits or with a Waterjet, the 4 corners should have a minimum radius of 4/16” (the largest possible).

1. Mark the vertices.

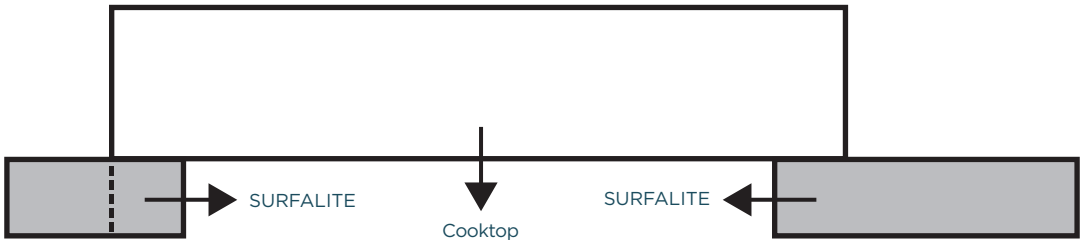
2. Drill the holes corresponding to the vertices



3. Make the cuts to join the holes

4. Hole with rounded edges

Please note: whenever making the cutout for the cooktop, make sure the heating element is placed more than 20 mm (¾”) from the edge of the cutout. This is to avoid potential cracks due to the excessive heating of the portion of slab wrongly left too close to the edge.



Remember to add 45° miters on corners where needed.

General Instructions for Cutting with CNC

- If cutting with CNC with a diamond blade, refer to the instruction in the “cutting the slabs” section;
- If cutting with a diamond cutter (finger bit), use cutters specifically for quartz. The finger bits compared to diamond blades remove a substantial amount of material during fabrication and therefore require a reduced feed rate, usually between 7-7/8”/min and 15-3/4”/min and 4000-8000 rpm.
- Fabrication must be carried out in compliance with the recommendations provided by the manufacturer of the CNC machines and tools used.
- Keep an abundant and constant flow of cooling water in the working area of the tool so as to prevent the cutter and the Surfalite slab from overheating. It is appropriate to keep a greater amount of water in Surfalite fabrication in comparison with the flow usually used for fabricating marble or granite. The water flow must be directed into the working area of the cutter and in the same rotation direction of the tool.

Periodically check the tool to verify its state of wear or damage. Make sure that the slab is secured to prevent movement during the fabrication process. If chipping or breakage occurs during fabrication, reduce the feed rate.

General Instructions for Cutting with WaterJet

Waterjet cutting is possible thanks to a water jet and abrasive particles at very high pressure (2500 – 5000 bar). The cut generated usually has a width ranging from 1/64" to 1/16". The feed rate affects the quality of the cut, which at high speeds becomes very irregular and serrated on the bottom.

Poor quality cuts can cause the Surfalite slab to break.

The quality and speed of the cut can be affected by many variables, such as the type of equipment used, the pressures used, the type and amount of abrasive, the equipment software etc. For this reason, it is essential to consult the equipment supplier for information on operational procedures.

Some generic measures for fabricating are:
- Reduce the feed rate to improve the quality of the cut
- Use abrasives specifically made for use with engineered stone
- Inspect the equipment regularly
- Use updated software
- When possible, the direction of the cut must be from the outside to the inside
- The cut must begin as far as possible from the piece to be obtained
- Make sure the support surface is in good condition
- Make sure the correct quantity of abrasive is used
- If necessary, reduce the distance between the nozzle and the slab.

Working the Edges

Joining the Edges
Join edges using a monocomponent polyester resin based adhesive, following the instructions provided by the manufacturer. The pieces to be joined must be flat, dry and cleaned.

Polishing the Edges
The edges can be polished with edge polishing machines for stone materials using grinding wheels with a diameter of 5-1/8" specifically for quartz. The piece to be polished must be secured to prevent any movement during polishing. The cooling water must have a steady and adequate flow to ensure sufficient cooling. The feed rate and the pressure of the grinding wheels must be adjusted in order to obtain a good polishing, and may vary depending on the type of machine and abrasives used.

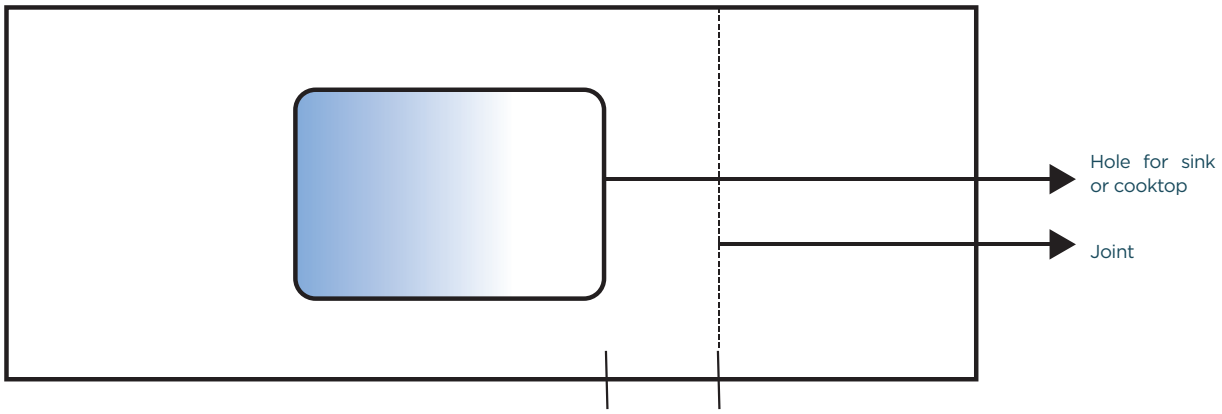
NOTE: When machining dark materials, avoid the accumulation of water for a long period on the surface. This could cause marks which can no longer be removed. It is therefore recommended to dry the surface quickly.

With mitered edges, please, note, that very little polishing is needed due to existing factory polish on edge pieces. You only want to polish the mitered edge corner and to not allow the polishing pad to touch the front surface of either the countertop or edge piece. This could cause scratching, If trying to achieve a different edge style, such as a beveled edge, you will need to cut pieces at a 22-1/2" degree join with a ½" strip inserted between and polish over entire edge. The fabricated countertop is to be moved and handled vertically, avoiding twists and collisions.

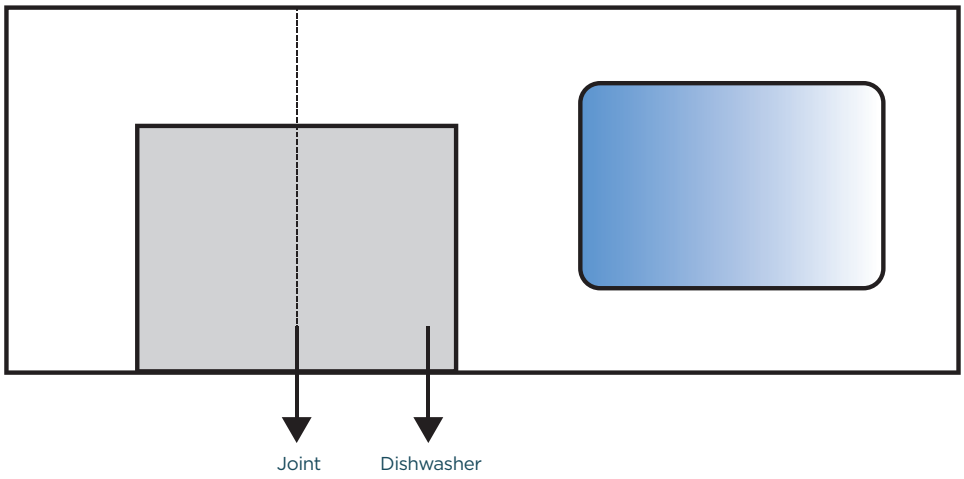
Fabrication Tips

Positioning Joints and Gluing
When planning the joint location on tops made of several pieces, in addition to allowing the maximum use of the slab surface, you must consider certain technical aspects:

The Joints must be at least 5-7/8” from the holes (sink or cooktop cut out).



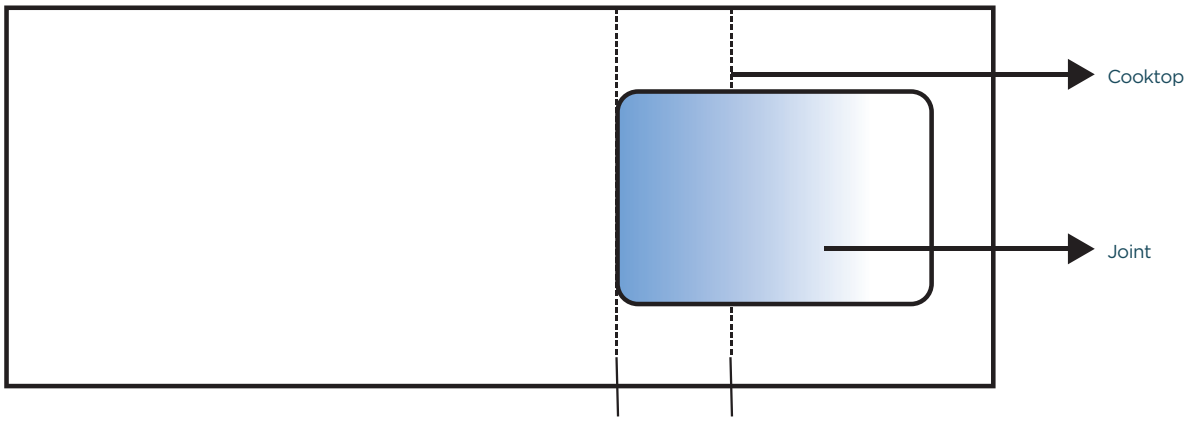
The joint must not be positioned above the dishwasher or any other household appliance that radiates. heat.



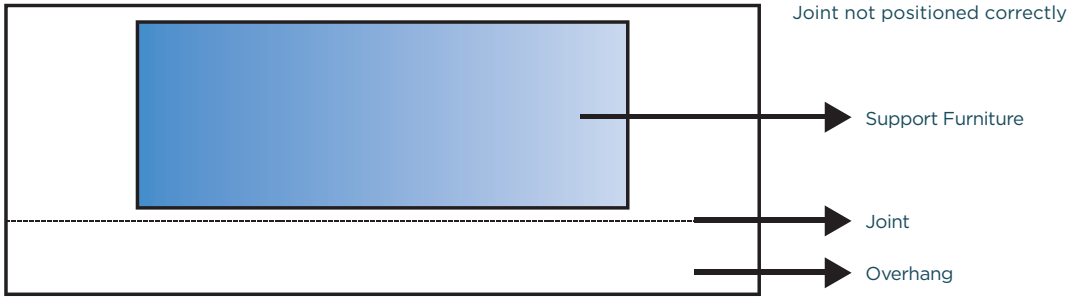
Joint not positioned correctly

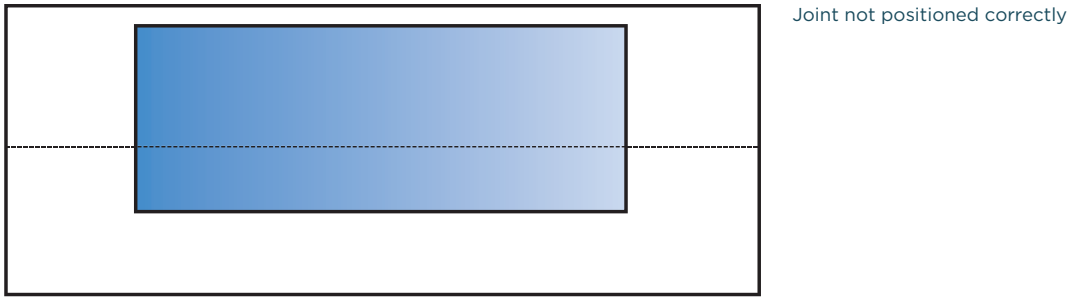
Fabrication Tips

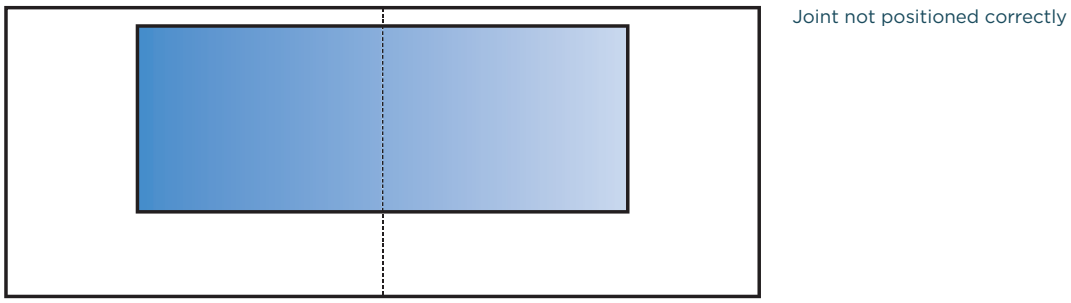
It is not recommended to position the joint in line with the cooktop.



The joint must not affect any overhangs.

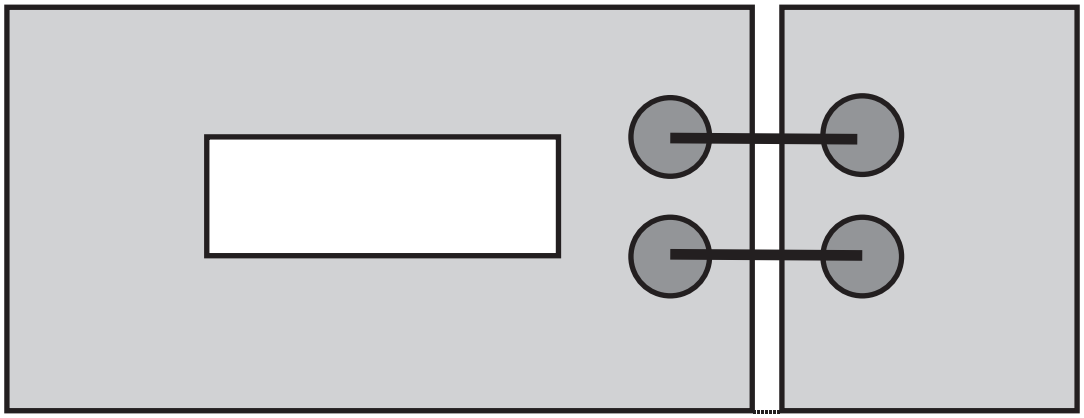






Fabrication Tips

- Use masking tape to protect the edges of the two parts to be glued.
- Use denatured alcohol to clean the parts to be glued. Never use acetone.
- The surfaces to be glued must be rough, flat, dry and thoroughly clean.
- For gluing you can use polyester resin or acrylic epoxies, following the instructions provided by themanufacturer.
- If you need to adjust the color of the polyester based adhesive, use specific colored pigment.
- It is recommended to remove excess mastic from the top before it hardens completely.
- The joint must be as thin as possible (max 1/16”), therefore we recommend the use of proper equipment for the purpose (such as Gorilla Grip system).



Max 1/16”

- Leave the retaining clips in place until the glue has set, then remove the clips and the masking tape and remove any excess adhesive with alcohol.
- Avoid joining the two parts mechanically with screws or nails in direct contact with SURFALITE.

Specific mastics for gluing many products of the SURFALITE range can be found at www.tenax4you.com and www.integra-adhesives.com.

Furniture Cladding/Lamination

Preparation for the Cladded items

1. Clean any existing dirt or stains on the surface (dust, oil, or other contaminants) of the cladded items.

2. The surface must be clean, dry and free of cracks prior to installation.

Preparation of Surfalite Pieces

1. Clean any existing dirt or stains on the surface (dust, oil, or other contaminants)

2. Keep the Surfalite pieces on an even, flat surface. Make sure that the pieces are not bowed.

3. Prepare the suitable adhesive for the material Surfalite is to be cladded on.

Instruction for Cladding/Lamination

1. Put the items to be cladded on a flat support base.

2. Spread the adhesive evenly to cover the whole surface of the stone pieces and the cladded items.

3. Put the stone pieces on the cladded items and gently press the pieces to evenly spread the adhesive.

4. Secure the stone pieces and the cladded items with clamp and suspender to ensure good adhesion. Use rubber matting or similar protection to avoid damaging the finished surface.

5. Remove all excess adhesive and clean the materials.

6. After the adhesive is dry, release the clamp and remove the suspender. Wait for at least one hour before proceeding to finish the work.

Installation

Tops must be handled in a vertical position, avoiding twists or impacts. Before proceeding with the installation, carefully check that the counter is not scratched, has no cracks or aesthetic imperfections.

Make sure the support surface of the unit is perfectly level, and, if composed of several parts, that these are levelled, adjusting the legs of the unit, if necessary. Gently rest the counter upright on the rear side of the unit, apply some neutral silicone on a few points on the base of the unit and then lower the top by adjusting its position.

In order to keep the counter clean while adhering the back, or joining L-shaped counters, apply masking tape near the areas to be joined and then apply a bead of neutral silicone.

Remove excess silicone with a spatula, razor or putty knife. The masking tape should be removed only after the silicone has hardened. Remove any silicone residue with sharp metal scrapers, taking care not to mark the surface.
To secure the counter to the unit, only use neutral silicone and not epoxy adhesives or other adhesives. In fact, the silicone guarantees the necessary flexibility to compensate for small movements caused by thermal contraction and expansion.

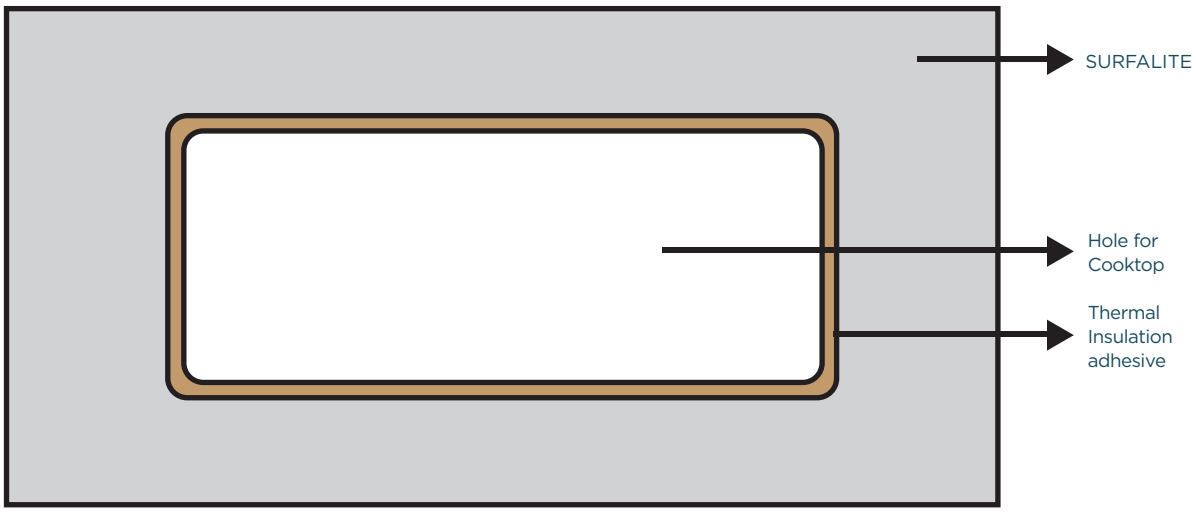
Leave an expansion space of about 1/8” between the counter and the walls or the units and seal it with neutral silicone, always making sure to first protect the surface with masking tape.

Do not apply pressure to the quartz around any sink or cooktop cut outs.

Post Installation Troubleshooting

Many problems can occur around the cooktop area due to:

- Excessive heating of the top which causes breakage due to thermal shock or repeated cycles of extreme heat/cold.
- Major weaknesses in the area of the hole, typically in the corners, especially if they are not rounded.
- Incorrect cooktop hole size (the cooktop should not exceed 3/4” over the perimeter of the cut out).
- To reduce the heat transfer from the cooktop, glue specific adhesive tape for the thermal insulation ofhousehold appliances on the edge of the hole (1452 Aluminium Tape of 3 M) This tape should never be removed.



- If there is a dishwasher, washing machine, oven or any appliance that produces heat below the counter, use silicone to glue an insulating panel (in polyurethane or heat-reflective) under the counter wherethese appliances are positioned.

Overlay Job

Fabrication Tools

- Festool track 5000 mm
- Festool track 1400 mm
- Lever clamps
- Festool TS 55 110volt saw
- Dust extractor CTM 36-E
- Rotex sander
- Platorello Super soft backing pad for Rotex
- Router
- Slab lifters
- 180 mm diameter metalbond diamond blade with 30 mm bore
- Saphire, Cristal & Titan disks for Rotex Sander
- 125 mm diameter Vee Groove wheel medium cut
- Parallel router bit for Makita
- Mix Pac applicator gun
- 250mm Acrylic epoxy adhesive
- Static mixer
- Core drill
- Core drill arbor
- Clamps
- Masking tape

*** Whenever cutting with a Festool, always make sure to wear a respirator and do not exceed the maximum concentration of airborne silica in the air.**

Templating

Template using standard templating material, such as cardboard or wood strips and a hot glue gun.

When templating for an overlay, keep in mind, that the new exposed edges must overlap the existing edges. For this reason, always add the thickness of the overlaying material to every exposed edge of the countertop where there will be a new edge. You do not add to edges that hit a backsplash or are seamed.

Make all necessary markings on each edge of template for edges, seams, and backsplash. Be sure to indicate job name and color on each template piece. Measure for cooktop cutout and sink cutout. For undermount sinks, be sure to center sink in existing hole so that new sink can drop in the same hole and reduce the amount of prep needed during.

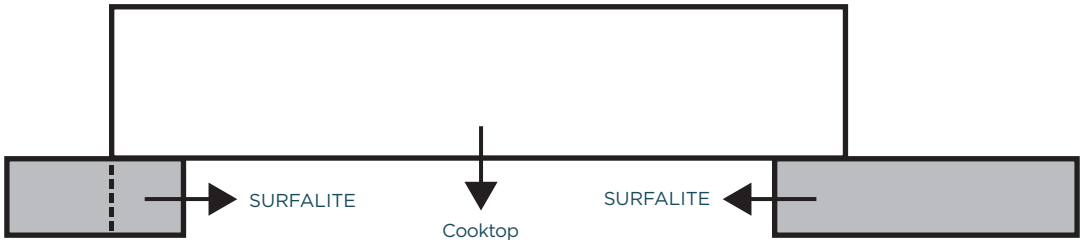
Cutting the Slabs

Prior to cutting the slab, make sure that the bridge saw or Festool and table are in good condition to avoid slab movement during cutting. The blade must be in good condition and the water flow consistent in order to ensure the adequate cooling of the blade. To ensure a clean and consistent cut, the blade's rotation speed (rpm) and the saw's travel speed must be set up according to the guidelines provided by the blade and saw manufacturer(s). If using a Festool system, be sure not to force the blade. Let it do the work or the blade will heat up and cause vibration, warped cuts, and potential cracking.

Be sure to properly lay out job with all templates pieces accounting for all areas, joints, and edges before proceeding with any cutting.

For square cutouts for sinks and cook tops proceed as follows: drill a hole (Ø 30 mm – 1-1/4") at the four corners of the square, then cut with a blade the lines between the holes, in a way to leave the corners rounded.

Please note: whenever making the cutout for the cooktop, make sure the heating element is placed more than 20 mm (¾") from the edge of the cutout. This is to avoid potential cracks due to the excessive heating of the portion of slab wrongly left too close to the edge.



*** Whenever cutting with a Festool, always make sure to wear a respirator and do not exceed the maximum concentration of airborne silica in the air.**

Working the Edges

Joining the Edges
Pre cut edge pieces should be made in the correct quantity needed for the job from slabs. Using a chop saw with diamond blade, cut the appropriate length edge pieces. Be sure to add 45° miters on corners where needed. Join edges using a monocomponent polyester resin based adhesive, following the instructions provided by the manufacturer. The pieces to be joinedmust be flat, dry and clean. Be sure to run finder or wooden tongue depressor under back of edge join to remove excess glue so that new overlay will lay flat on existing countertops.

Polishing the Edges
The edges can be polished with edge polishing machines for stone materials using grinding wheels with a diameter of 5-1/8" specifically for quartz. The piece to be polished must be secured to prevent any movement during polishing. The cooling water must have a steady and adequate flow to ensure sufficient cooling. The feed rate and the pressure of the grinding wheels must be adjusted in order to obtain a good polishing, and may vary depending on the type of machine and abrasives used.

NOTE: When machining dark materials, avoid the accumulation of water for a long period on the surface. This could cause marks which can no longer be removed. It is therefore recommended to dry the surface quickly.

Please note that very little polishing is needed due to existing factory polish on edge pieces. You only want to polish the mitered edge cornet and to not allow the polishing pad to touch the front surface of either the countertop or edge piece. This could cause scratching, If trying to achieve a different edge style, such as a beveled edge, you will need to cut pieces at a 22-1/2" degree join with a ½" strip inserted between and polish over entire edge.

The fabricated countertop is to be moved and handled vertically, avoiding twists and collisions.

Installation

Preparation
Preparation is the key to success. Make sure you have all the necessary tools, consumables, and ,most importantly, job pieces cut, prepared, and inspected prior to leaving the shop.

You will need the following:
- Job packet with job information
- Directions and contact information
- Job pieces ordered and completed
- Angle grinder with diamond blade
- Titebond GREENchoice Heavy Duty Construction Adhesive and gun
- Mono-component polyester based adhesive and tinting kit
- Clear silicon and gun
- Shopvac
- Builders paper
- Painters tape

Site Preparation
1. Pick an area that allows for easy access with a minimum number of obstacles.

2. Go over all job specifications with the customer and fully explain the installation process to them.

3. Protect their flooring with builders paper fixed with painters tape (use caution taping to wood floors).

Dry Fit
1. Dry fit all pieces to ensure proper fit and seams.

2. Check all clearances.

3. After performing dry fit and making any adjustments necessary, remove countertops and set aside carefully.

Installation
1. Apply Titebond GREENchoice or similar Heavy Duty Construction Adhesive: apply evenly in lines spaced every 6” over existing surface.

2. Pre tint polyester resin for seamed areas but to not add hardener.

3. Install bead of silicon to the top of the under mounted sinks or drip trays (apply to center of the lip so that it does not come out inside sink).

4. Install all countertops pieces while adhesive is still tacky.

5. Do one seam at a time.

Installation

Seaming the Pieces

1. To seam the pieces use a mono-component polyester resin based adhesive, following the instructions provided by the manufacturer. The surfaces to be seamed must be unpolished, flat, dry and clean.

2. If necessary, the color of the adhesive can be adjusted by using either colored pigments for polyester resin or metallic oxides. The color should be added prior to adding the catalyst. Add the needed quantity of colorant to achieve the desired shade, and then add the catalyst to harden the adhesive. Adding too much colored pigment may alter the physical properties of the adhesive. We recommend removing any excess adhesive from the top before final hardening takes place.

3. At seams, mask the joins in line with the seam to insure the polyester will not drip or flow out of joins.

4. Add hardener to enough pre tinted resin for one seam and apply between seamed pieces allowing polyester to rise slightly higher than the masking tape.

5. Pull pieces together to form a tight seam and check level for unevenness.

6. When the polyester is hardening, but still pliable, with a new razor blade carefully cut through masking tape and polyester in one continuous, even cut, paying attention not to scratch the surface.

7. Clean off any excess glue before dry.

8. If necessary, Using 00 or 000 grade steel wool and a sanding block, work the abravise parallel to the joint until all high spots are removed and joint shines.

9. Drill any faucet holes using a 1-1/4” core bit.

10. Be sure not to bump or move any pieces for 12 hours until adhesives set.

Wall Installation

1. For wall installations such as backsplash and bath surrounds, make sure the surfaces to be covered are clean and level. If necessary, use a thinset to float uneven surfaces. In this case, refer to the guideline for installation of wet wall application available in the Technical Library section of the www.surfalite.com website.

2. Dry fit to ensure proper coverage and seams.

3. Prepare all pieces for cutouts using methods appropriate for relative material based on Fabrication procedures (see above).

4. Using a 1/8” notched trowel, apply a layer of adhesive to surface to be covered. Make sure amount of adhesive is sufficient and evenly spread full bed. Install new piece making sure to align for level and for seams. Ensure proper adhesion by tapping surface with rubber trowel. Depending on surface, it may be necessary to brace or tape installed pieces until dry.

Completion

1. Thoroughly clean up your work area and installation area. Leave it cleaner than when you arrived.

2. Go over all warranty information with the customer.

3. Customers have many choices and they chose you. Thank them for their business!

Care & Maintenance

Post-Fabrication Cleaning

1. Once the slabs have been fabricated, remove any residue with water and a clean cloth. Thoroughly dry the surface.

2. Deep clean the surface by spraying an acidic or slightly alkaline pH detergent specifically designed for resin bonded engineered stones, and consistently spread it with a non-abrasive sponge. Allow the detergent to work for 5 minutes, then thoroughly rinse with water until the detergent has been completely removed. Remove the excess water with a cloth and allow to dry.

3. If the surface is dull or shows dull areas after this process, rinse again and allow to dry. If the surface still shows dirt or dull areas, repeat the whole deep cleaning process.

4. We do not recommend the use of surface treatments, (for example waxes or sealers), that may lead to loss of the shine of the surface and inconsistent look if not properly used.

Cleaning After Installation

1. During the installation mask the joints and make sure that the silicone will not drip or flow out of joints onto the surface.

2. Only use a neutral silicone to install the countertop. Remove the excess hardened silicone with a new razor blade, being careful not to scratch the surface.

3. Once the installation is complete, deep clean the surface using an acidic or slightly alkaline detergent specifically designed for resin bonded engineered stones by spreading it consistently with a sponge. Allow the detergent to work for 5 minutes, then rinse with water until the detergent is completely removed. Remove the excess water with a cloth and allow to dry.

Daily Cleaning

1. The daily cleaning of Surfalite® surfaces is done using a damp cloth or paper towel and, if needed, a small quantity of neutral or slightly acidic pH detergent specifically designed for the daily cleaning of resin bonded engineered stone surfaces.

2. Spread the detergent on the surface and let it work for some seconds, rinse with a cloth or water, then carefully dry the surface.

Cleaning Difficult Stains

1. Surfalite® countertops are highly resistant to staining. However, cleaning difficult stains may require special action, especially if these stains are not removed promptly.

2. Deep clean the surface by spraying a neutral or slightly acidic pH detergent specifically designed for deep cleaning resin bonded engineered stone countertops, and consistently spread it with a non-abrasive cloth.

3. Allow the detergent to work for 5 minutes, then thoroughly rinse with water until the detergent has been completely removed. Remove the excess water with a cloth and dry.

Should the stain not be completely removed, repeat the whole process.

Preventing Damages Caused by Thermal Shock or Impact

Surfalite® surfaces are heat resistant and can withstand a limited exposure to pots, pans or dishes at normal cooking temperature without visible damages.

Although Surfalite® surfaces show higher heat resistance than any other stone countertop, they can be damaged by sudden and extreme thermal shocks. We recommend the use of trivets to avoid continued exposure of Surfalite® surfaces to sources of heat.

Surfalite® surfaces are highly scratch resistant, but are not scratch proof. We recommend the use of cutting boards when cutting and preparing food.

Chemicals to be Avoided

Avoid exposing Surfalite® to chemicals and solvents, especially paint removers, that might contain trichloroethane and methylene chloride. Keep solvents, acetone, alcohol, thinners, detergents containing bleach, laundry bluing, highly alkaline liquids such as bleach, caustic soda or oven cleaners, acids, oily soaps, descalers, markers or ink, abrasive and micro-abrasive detergents away from the surface.

Avoid using any detergent not specifically designed for resin bonded engineered stones, especially acidic and highly alkaline determents. Finally, avoid using highly abrasive sponges that may scratch the surface.

Should any of the above listed liquids drip on the surface, remove it immediately and thoroughly rinse with water. Even though an occasion exposure to alkaline products does not damage Surfalite® surfaces, highly alkaline detergents (high pH) are not recommended for daily cleaning.

The use of highly alkaline detergents may damage the surface of the material.

It is recommended to use only a neutral silicone to install the countertop.

IMPORTANT! - The content of this recommendation is based on our experience. Although we strive for thoroughness and accuracy of the information we provide, this is not a warranty and we can't take any responsibility for the exactness and applicability of this document.

santamargherita
THE ORIGINAL ITALIAN SURFACE

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