

### **Fabrication Guide**

### LIDO QUARTZ FABRICATION GUIDE

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### Introduction

This manual is published to inform fabricators of the best practices and guidelines for fabrication, installation and usage of Lido Quartz Surfaces. This manual will cover general topics and is not a replacement for competent knowledge of industry standards and fabrication experience.

All fabricators will be required to review the Lido Quartz Surfaces Fabrication Guide and follow the guidance provided herein. Failure to adhere to guidelines or failure to follow common practices within the industry may result in the product not performing as expected and may void the warranty.

Lido Quartz Surfaces will not be liable (directly or indirectly) for any errors, omissions, loss of profit, potential damages, injury, or death resulting in the use of the information contained in this guide. This guide may be modified or changed at any time without notice and it is the responsibility of the fabricator to ensure they have the latest version available on LidoQuartz.com

All local laws and regulations must be adhered to while fabricating Lido Quartz, including occupational health and safety laws and any laws relating to the protection of the environment.

### Handling & Storage Guidelines

### **1.1 Slab Dimension & Weight**

Thickness	Slab Size	Lbs/Slab	Lbs/SF
2cm	126" x 63"	552 lbs/slab	10 lbs/sf
3cm	126" x 63"	826 lbs/slab	15 lbs/sf

### **1.2 Slab Handling**

Improper handling, transportation, and storage of Lido Quartz can cause serious injury or death. Always exercise extreme caution and common sense when handling slabs and ensure all workers are aware of proper handling techniques.

Proper CSA approved safety shoes, glasses and gloves to be worn at all times.

• Fabricator responsible for employing best practices and using CSA approved lifting equipment during handling of Lido Quartz slabs

- Inspect all lifting equipment prior to use
- It is the fabricators' responsibility to properly inform employees of dangers and train in proper lifting procedures prior to handling Lido Quartz.
- Only handle 1 slab at a time using adequate clamps and strapping
- Keep a safe distance when handling slabs and move with extreme caution. NEVER place yourself under a moving slab.
- Avoid lifting the slab higher than necessary

#### **1.3 Slab Storage**

It is recommended to store Lido Quartz indoors; if slabs are stored outside they are subject to staining, fading, discoloration and exposure to the elements. Never leave a polished face exposed to the sun. The surface WILL get damaged.

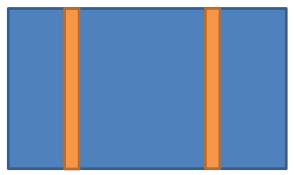
When storing slabs ensure the following best practices are followed:

- Do not store with polished surface exposed to direct UV light as this could result in discolouration
- Store slabs polished face to polished face and back-to-back to avoid scratches
- Place an even number of slabs on each side of a CSA approved A-frame.
- Securely fasten slabs to rack or a-frame using straps. Ensure the back of the slab is against the rack or frame to prevent scratching of the surface
- Store slabs in a uniform manner to prevent warping; ends of slabs should line up
- Fabricator is responsible to inspect a-frames to ensure their structural integrity and the weight capacity
- Storage temperatures should not exceed 129°F/53°C

#### **1.4 Vehicle Transportation**

Lido Quartz Surfaces assumes no liability for damage, injuries, or fatalities that may occur during vehicle transport of slabs. After the slab has been loaded at the distributors' facility, it is entirely the driver's responsibility for ensuring the load is adequately secured and all laws and regulations are followed.

- Never transport Lido Quartz Surfaces horizontally.
- Use CSA approved "A" frames to transport slabs.
- Ensure the load is within the legal carrying capacity of the vehicle.
- Only place straps/tie-downs where A-frame supports the back of the slab see Diagram 1.1
- Only unload slabs on level ground and exercise caution when unstrapping as slabs may have shifted during transport.



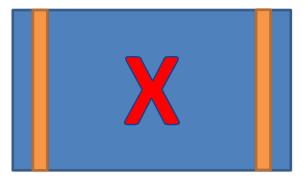


Diagram 1.1

### **Inspection Guidelines**

### 2.1 Clear Plastic Protective Film

Lido Quartz Surfacing is protected during transportation with a clear plastic protective film. It is imperative to **remove** the plastic as well as the adhesive prior to inspection and fabrication. Failure to remove the protective film may result in the adhesive damaging the polished surface.

Remove adhesive using the following method:

- Remove plastic film.
- Wash away remaining adhesive with warm water (between 40° 49° C) and a small amount of mild soap.
   Clean the entire surface of the slab.
- Wait between 5-10 minutes.
- Repeat washing until the surface is free of adhesive.
- Rinse with cool water once satisfied

\*Pro-Tip\* If adhesive will not remove, following the next steps

- Melt 2/3 cup of Pink Solution into 4 litres of hot water
- Apply liberally across the slab
- Let the solution sit for 25min 50min as needed
- Rinse thoroughly
- **DO NOT use chemicals such as alcohol or acetone to remove adhesive**. Using solvents will cause the adhesive to dissolve and create a chemical reaction that will change the appearance of the polish and will NOT be covered by warranty.

### **2.2 Inspection Checklist**

Upon receiving Lido Quartz slabs, it is essential to perform a thorough visual inspection. It is the fabricators' responsibility to inspect each slab prior to cutting. No returns will be accepted for material that has been cut, fabricated, or altered in any way.

#### **Checklist for Visual Inspection (prior to fabrication)**

- Correct colour
- Correct thickness
- Matching batch numbers (Fabricator is responsible for any colour/seam matching refer to section 2.3)
- Scratches, streaks, dull spots
- Pitting, voids, blemishes
- Hairline cracks, chips
- Polish consistency
- Colour consistency
- Thickness within +/- 1.5mm
- Warping: less than 3mm/1.5m; check by placing slab horizontally using a full-length straight-edge

Should a slab not satisfy the above checklist, Lido Quartz Surfaces will exchange the slab. No warranty will be provided for any labour charges incurred for fabrication done on defective material or any additional transportation charges incurred.

### 2.3 Colour & Pattern

Lido Quartz Surfaces is proud to offer a wide range of colours and patterns. To achieve this natural appearance, the slabs have been engineered to have a random distribution of quartz throughout the slab. Colour, pattern and material flow will vary from slab to slab. To achieve the best match possible, ensure sufficient time and attention is spent on slab layouts prior to cutting.

### <u>Fabricator is responsible for ensuring the consumer has viewed and approved the slab match prior to fabrication to ensure satisfaction.</u>

The following factors must be taken into consideration when performing a colour match:

- Always perform a visual colour and pattern match prior to cutting even with slabs from the same batch.
- Ensure the slab layout has been approved by the consumer.
- Visual colour matching between slabs should be done in similar lighting conditions as the installation site
- Each slab is unique and may have colour and pattern variations.

- Samples provided should only be used to provide a general representation of colour, shade, and aesthetic properties. The sample cannot show all possible variations present in the slab and colour variations.
- Colour and pattern variations will be visible from one side of the seam to another. These slight variations are not considered defects but every effort should be made to provide the best match possible. The closer together the seams are placed on the slab layout, the more likely the colour match.
   \* Refer to Diagram 2.2 for best practices when mapping out a slab for seam match
- When possible, place seams near the centre of the slab and avoid using the perimeter of a slab as the seam.
- Ensure extra attention is given to direction and movement in veined colours from Lido Quartz. Inform the client that the vein and pattern will not match at seams. Additional slabs may be needed to provide the best seam match as veins tend to be directional. Veined slabs will also have areas with heavy vein concentrations and areas where veining will be sparser. This random effect is intentional and not a defect.
- Perpendicular (L-shape or U-shaped) seams may not match in certain lighting conditions.

### If there is a noticeable colour or pattern variation between slabs within the same batch number, Lido Quartz will provide an exchange provided no cutting or installation has taken place.

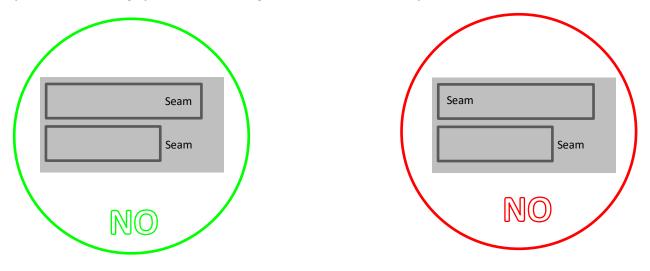


Diagram 2.2 – Best seam match when laying out the slab

### **Fabrication Guidelines**

### 3.1 Safety

During the process of fabrication (sawing, drilling, sanding and polishing) of engineered quartz, airborne dust particles containing silica are created. Long-term exposure to airborne crystalline silica can cause a disabling, sometimes fatal lung disease called silicosis. It is the duty of the fabricator to inform and protect their workers from silica exposure using effective dust control measures and training. Any party that chooses to fabricate Lido Quartz Surfacing does so with full knowledge of risks involved and will not hold Lido Quartz Surfacing liable for any

effect on short term or long-term health that may occur. Please note that there are no inherent health risks present in Lido Quartz Surfacing once installed. Refer to Work Safe BC for fabrication regulations.

#### All local laws and regulations must be followed when fabricating Lido Quartz

The following steps must be followed during fabrication to reduce exposure to silica dust:

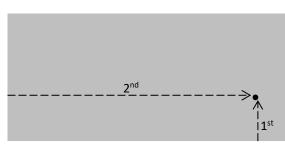
- All fabrication to be carried out with wet tools to reduce airborne particles
- All workers must wear an appropriate respirator that has been fit-tested. Filters must be replaced at regular intervals and respirators must be cleaned and stored in accordance with industry guidelines and local health & safety regulations.

### **3.2 Cutting Lido Quartz**

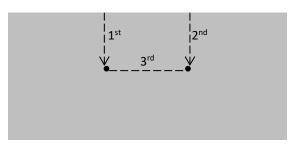
All cutting should be done on a water-cooled diamond bridge saw with an engineered stone diamond blade. Consult your diamond tool supplier for all recommended RPM and feed rates for all diamond tools. A CNC machine or Waterjet is recommended for curved or irregular cuts.

The following factors must be taken into consideration when cutting Lido Quartz:

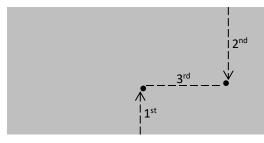
- Always use ample water during cutting to reduce heat and airborne particles.
- Wear an approved face mask and have adequate ventilation to avoid inhalation of particles. Lido Quartz dust contains silica which can be hazardous to your health.
- Do not use a portable circular saw as a crack is likely to form.
- Use an engineered stone diamond blade for cutting.
- The cutting bed must be flat, free of debris, and level.
- Do not plunge cut without relief holes. Drill relief holes prior to cutting the slab. Make sure relief holes are drilled all the way through the slab.
- Always start cuts from the outside of the slab and cut towards the relief hole. Always make the shortest cut first.
  - \*Refer to Diagram 3.2 for relief hole drill instructions for straight, U-shaped, and L-shaped cuts
- Do not stop in the middle of cutting



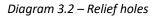
\*If cutting the full length of the slab, drill a relief hole prior to cutting. Always cut towards the relief hole always cutting the shortest cut first.



\*When cutting "U" shaped pieces, drill relief holes where the cut lines Intersect. Always cut towards the relief holes.



\*When cutting "L" shaped pieces, drill relief holes where the cut lines Intersect. Always cut towards the relief holes making the shortest cut first.



### **3.3 Seaming**

Always discuss seam placement with the client prior to fabrication. While every seam will be visible, it is important to plan and discuss placement to provide as inconspicuous a joint as possible.

The following factors must be taken into consideration when seaming Lido Quartz:

- To minimize the visibility of seam, use a seam setter tool (such as Gorilla Grip or Omni Cubed) to create as narrow a joint as possible. Seams should be no more than <sup>1</sup>/<sub>16</sub>" wide.
   \* See Diagram 3.3A
- Do not place seams within 6" of any cut out (such as a sink or cooktop) \* See Diagram 3.3 B
- Do not place seams over dishwashers or appliances that radiate heat. Doing so can cause excessive thermal movement and/or failure from a lack of cabinet support.
- Seam surface must be smooth and free of debris

- Always use coloured glue to achieve a colour match to surface. Integra Adhesives is recommended to provide an optimal match with their premixed adhesive.
- The sides of the stone that are to be seamed should be grooved or notched to allow the glue to adhere
  the two pieces together. Lido Quartz will not absorb the adhesive and these grooves or notches are
  essential to provide space for adhesive to bond.
   \* See Diagram 3.3 C
- Use masking tape along the surface of both sides to be seamed to avoid glue residue.
- Once the surface is seamed (using Seam Setter) and the adhesive is applied along the entire length of the seam,

wipe away excess adhesive residue.

- Do not surface polish any seams as the polish will not be the same as the factory finish (warranty will be voided).
- All seams must have adequate support underneath.
- All seams must be perfectly level along the surface.
- Do not install mechanical fasteners into Lido Quartz Surfaces.
- NEVER surface polish seams to make them smooth. Doing so will void all warranties

### 3.4 L or U-shaped Counters and Inside Corners

Lido Quartz does not recommend installing "L or "U" shaped countertops without a seam. If no seam is used, the inside corner may crack due to increased tension and mechanical stress present. \**Refer to Diagram 3.4 for acceptable seam placement for L shaped counters.* 

If installing an L or U-shaped counter without seams, ensure the inside corners have a minimum 3/8" radius. This does not guarantee the counter will not crack but will reduce the probability of this occurring.

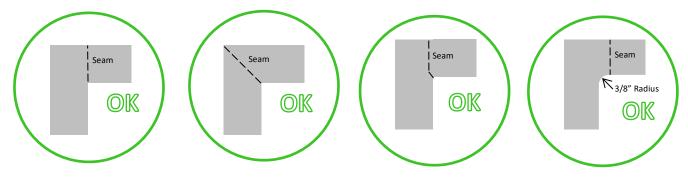


Diagram 3.4 – Seam placement for L-Shape and U-Shape Counters

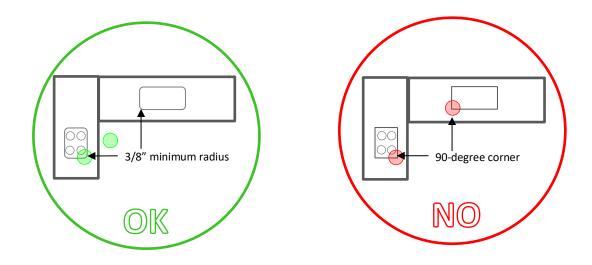
### 3.5 Cut-outs

All cut-outs should be cut using wet diamond cutting tools to avoid generating excess heat which can cause hairline cracks. Cutting should only be performed with a bridge saw, water jet or CNC. Using a portable circular saw will likely cause cracking during cutting.

The following factors must be taken into consideration when creating cut-outs in Lido Quartz:

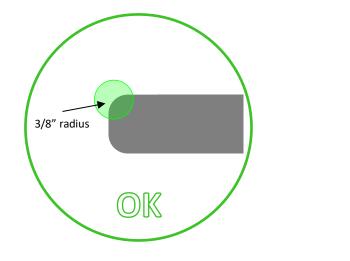
- Never cut a square inside corner/90° angle for any cut-outs. This may be a popular design but will not be covered by warranty.
- A minimum radius of 3/8" is required on internal corners to reduce the chance of cracking. \*Refer to Diagram 3.5 A
- Use a core bit to drill out corners of cut-out prior to cutting.
- Allow an additional 1/8" space between the appliances and cut-out to allow for thermal expansion.
- Joints between the countertop and sink should be sealed with high quality transparent flexible 100% silicone sealant. Immediately wipe away/clean any excess sealant.
- If the distance between the joint and cut-out is less than 6", additional support is required.
- Under-mount sink cut-outs must have a top edge profile with a minimum 1/8" radius. \* Refer to Diagram 3.5 B
- Impact damage is not covered under warranty.
- Do not support or affix sinks to the underside of the cut-out with any mechanical fasteners. The sink must be supported independently using a professional sink-setter or a system of support rails. \*Refer to Diagram 3.5 C
- A minimum distance of 2 <sup>3</sup>/<sub>4</sub>" should be provided from the edge of any cut-out to the edge of the front or back of the countertop. *\*Refer to Diagram 3.5 D*

Diagram 3.5 A - Minimum corner radius for all cut-outs



#### QUARTZ surfaces $\bigcirc$

#### Diagram 3.5 B – Under-mount sink stone minimum edge profile



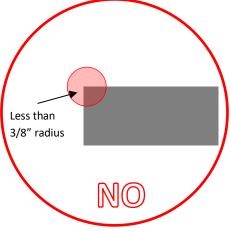


Diagram 3.5 C – Support rail system for Sink Installations

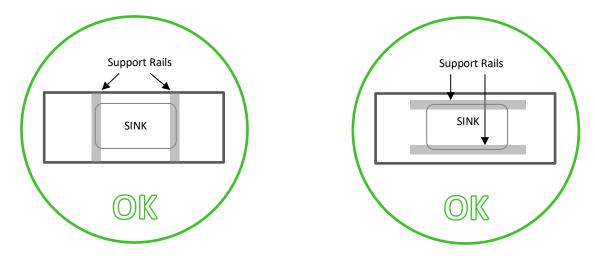
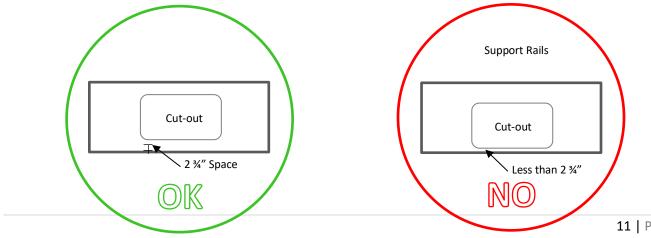


Diagram 3.5 D – Minimum distance between cut-out and countertop edge



### 3. Island Overhangs & Island Seam Placement

It is essential for overhangs and seam placements to be thoroughly discussed with the client before fabricating Lido Quartz.

- Overhangs of 12" (30 cm) or less do not need additional support unless there is less than 22" of cabinet support.
- If the overhang is over 12", additional support is required using legs, columns, panels or L-brackets.
- If using an L-bracket as additional support, the bracket must be a minimum size of 10" x 10" x 3/8" thickness with cross support.
- Never place a seam where less than 50% of the counter will be supported by the cabinet. \*Refer to Diagram 4.0
- Never place a seam over a dishwasher or in the middle of a sink or cut-out.
- Never install fasteners or screws into Lido Quartz.

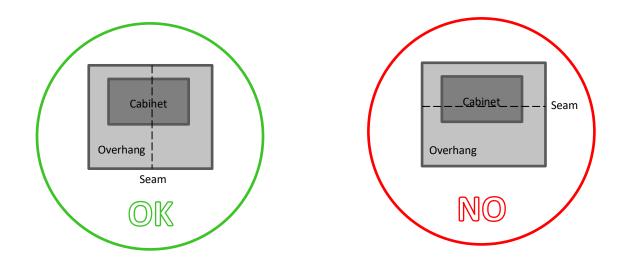


Diagram 4.0 – Minimum 50% of stone supported by the cabinet.

### **3.7 Edge Profiles**

Only use approved quality quartz diamond tooling when working with Lido Quartz. Do not use granite or marble tools. To achieve the highest quality polish, always keep the surface clean and free of grit. Only use clean non-recycled water when polishing.

The following is the Lido Quartz recommended process for edge polishing. These recommendations are a guideline for achieving a factory polish. Fabrication techniques, tools and diamond pads will play a major factor in the quality of the polished edge.

- 4" Quartz Diamond Pads 100, 200, 400, 800, 1500, 2000 3000
- It is essential to thoroughly wash and dry the edge before proceeding to the next grit to check the quality of the polish.
- Dry polishing the edges will overheat the stone and result in burning the surface.
- Never over-polish the surface in excess of the factory polish.
- Never use "stone buff pads" to achieve a polish.
- Lido Quartz requires a minimum edge profile of 1/8" (4mm) bevel \*Refer to Diagram 5.0
- Chiselled and hammered edges are NOT approved edges and will void warranties.

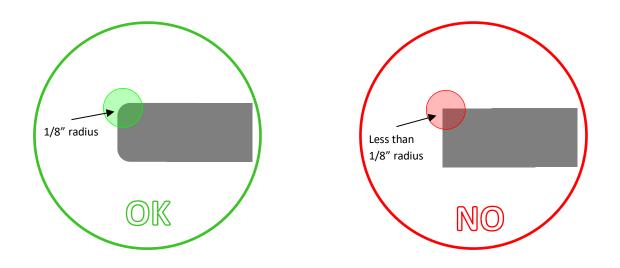


Diagram 5.0 – Minimum square edge profile

#### **Mitred Edges**

Mitred edges have the greatest risk of chipping. It is essential for the edge to be fabricated and assembled properly using the right tools and adhesives. Chipping is most prone in areas where the adhesive is not evenly applied throughout the joint.

- Mitred edges must be cut at a 45-degree angle to ensure maximum strength.
- Never cut the mitre at an angle less than 45 degrees as this increases the chance of chipping.
- There must be adequate stone contact at the tip of the joint. *Refer to image 5.1*
- If the mitred is not assembled as per Image 5.1, the chipping of the countertop edge will not be covered by our warranty.
- It is required to round the edge to a minimum 1/8" profile.
- Only use colour matched adhesives from Integra Adhesives.
- Chipping caused by hand-mixed epoxy will not be covered by warranty.

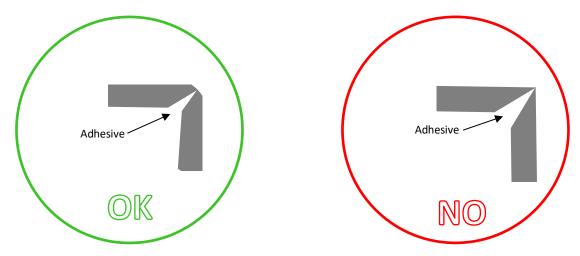


Diagram 5.1 – Mitred edge profile

#### Laminated/Double Edges

When laminating the edge of Lido Quartz, care must be taken to make the seam as non-visible as possible. The laminated strip should always be cut from the same area as the countertop surface to ensure a colour and vein match.

- A sharp blade is essential to eliminate chipping on the laminated piece.
- Only use approved engineered stone diamond blades and tools when working with Lido Quartz.
- The laminated strip should be the same length as the countertop to eliminate extra seams.
- Only use colour matched adhesives from Integra Adhesives.
- Chipping resulting from hand-mixed epoxy will not be covered by warranty.

### 3.8 Adhesives

Lido Quartz has partnered with Integra Adhesives to provide a colour matched adhesive for every colour of Lido Quartz. The use of hand-mixed epoxies or other adhesives other than Integra Adhesives will void the warranty of Lido Quartz

#### Adhesives

- 100% clear silicone is recommended to adhere to the base cabinets and other substrates to Lido Quartz.
- Construction adhesive, epoxies, liquid nails and other non-flexible adhesives do not allow for thermal expansion. Using these adhesives will cause Lido Quartz to crack and will not be covered by our warranty.
- Always follow the manufactures guideline on proper application and installation of their adhesives or silicones

#### Joint/ Seam Adhesives

- In order to make the joint as non-visible as possible, it is essential to use the colour matched adhesive from Integra Adhesives. You can find the colour match chart on the Integra Adhesives website.
- Always follow the manufactures' guidelines on proper application and installation of their adhesives.
- Failure to use the recommended Integra Adhesives will void all warranty claims.

### 4. Installation Guidelines

- Ensure base cabinets are installed as per the manufactures' guidelines and verify all cabinets are level within 1/16" over 18". If the cabinets do not meet the specified standards, the installer must notify the project supervisor or homeowner prior to installation.
- Lido Quartz must be supported with a strong perimeter frame.
- There must be adequate support every 24" to support Lido Quartz.
- Additional support rails are required across all dishwashers.
- Lido Quartz requires space to allow for expansion and contraction, 1/8" gap must be allowed around walls.
- When securing the countertop to the cabinet, only use dabs of 100% clear silicone every 8"-12". Extra dabs should be places along joints and cut-outs.
- In the case where a sink faucet is placed in the stone, extra support but be placed around the tap hole to prevent cracking. Ensure at least 2 <sup>3</sup>/<sub>4</sub>" of material is left between the edge of the tap hole and the next

- cut-out or wall. Cracking caused by drilling tap holes with less than 2 ¾" of material left will not be covered by any warranties.
- All sink installations are to be supported separately from Lido Quartz.
- Under no conditions can mechanical fasteners be affixed into Lido Quartz.

#### Wall Installation

All local laws, regulations and engineering practices must be followed when installing Lido Quartz on a wall application.

- Lido Quartz recommends the use of Ardex x77 thin-set mortar when adhering to walls.
- The adequate substrate must be installed prior to installing Lido Quartz. Never install Lido Quartz directly to Dry-Wall.
- Lido Quartz can be applied directly over plywood, asphalt, plasters, concrete, masonry type surfaces and concrete backer board with proper preparation and the use of proper adhesives.
- Lido Quartz should never be considered as a substitute for a waterproof membrane and will not provide a waterproof barrier.
- When applying an adhesive to Lido Quartz, ensure the surface being bonded is free of dust, oil, grease, paint, tar, wax, sealers, primers and any other materials which may act as a barrier between the stone and adhesive.

Be sure to inform your customer that any successive trades must not use Lido Quartz as a workbench, platform or any type of working area. Any chipping of surface damage caused to Lido Quartz is not covered by warranty.