

VARIANT™
S U R F A C E S

FABRICATION AND INSTALLATION GUIDE



APPLICATIONS

Variant Quartz™ is recommended for residential and commercial interior applications and can be used either horizontally or vertically, which includes kitchen countertops, backsplashes, bathroom vanities, wall cladding and many other interior designs.

Exposure to direct sunlight over a prolonged period should be avoided as it may cause change of color and warping.

Variant Quartz™ is not recommended for any exterior applications.

SLAB SIZES, FINISH & THICKNESS

Variant Quartz™ is manufactured in a range of sizes, depending on the color. Average sizes can be between 126" and 130" in length and between 63" and 65" in height. Displayed sizes are approximate only and may vary by 1 or 2" larger or smaller, based on the actual slab.

Most colors are only stocked in Polished finish and some are available in Honed finish.

Slabs are available in 2cm (approximately 3/4") and 3cm (approximately 1-1/4"). For information about availability on specific colors, please contact your Sales Representative.

COLOR CHARACTERISTICS

Variant Quartz™ is made with natural quartz and may have color variation from batch to batch, as well as minor imperfections that are accepted and follow industry standards. We recommend a visual inspection for defects and color matching upon receipt of your slabs. Once slabs are cut, it is understood that they were deemed acceptable and claims will not be accepted.

FABRICATING & INSTALLING VARIANT QUARTZ™

All Variant Quartz™ slabs are delivered with a protective plastic sheet that protects the surface. Please remove it before fabricating.

We suggest relief cuts prior to beginning the cut to relieve the tension on the slabs as tension may cause cracking and warping on the slabs.

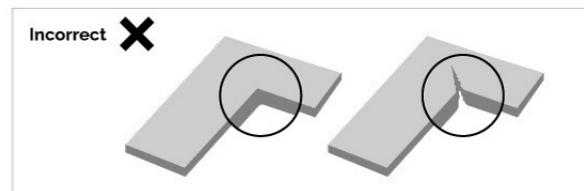
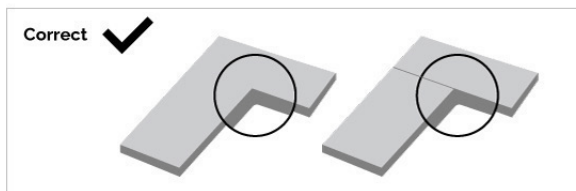
1. LAYOUT

You will need to measure and calculate the square footage, length and width of material that will be required for the project. If the project requires more than one slab, we suggest using slabs from the same batch to avoid color matching issues. Slabs with defects should not be used, unless the project allows you to work around them.

2. SEAM LOCATIONS

During the layout process you will need to determine the seam locations. This is a very important step that can ensure the aesthetics of the install and the environment if they are placed in the right location. Seams should not be placed in the following locations:

- Above dishwashers or any other appliances that generates heat
- Places that will be exposed to direct sunlight
- Through the center of sink cut



3. CUTTING

Below are some steps and instructions we recommend following when cutting VariantQuartz™ slabs.

- All equipment used to cut VariantQuartz™ should be wet diamond cutting tools in order to avoid generating excessive heat that may cause issues to the slab.
- The first cut made on a VariantQuartz™ slab should always be the shortest cut.
- When using a bridge saw, do not plunge cut.
- Inside corners must have a minimum radius of 3/8" or larger.
- Avoid cross-cutting and use a core bit when preparing a cutout.

3. CUTTING – ORDER OF OPERATIONS

To get started: "Do's and Don'ts"

DO remove protective plastic and inspect the slab before making any cuts.

DO make sure the table is perfectly level, flat and free from any debris.

DO make sure diamond cutting tools are used at the appropriate speed with adequate water to avoid generating heat and tool glazing.

DON'T plunge cut.

1. Relief Cuts

- a. Cuts to start from the outside perimeter of the slab.
- b. Multiple cuts per piece depending on the geometry.
- c. Cuts must be within 1" of the geometry of the piece.
- d. Cuts must extend from the center of the blade at least 3" from the end of the piece.

2. Countertop or Piece Cutting including Cutouts

- a. Cuts to start from the outside perimeter of the slab.
- b. Complete cuts that run the full width of the slab.
- c. Complete cuts that run the full length of the slab.
- d. Cut radius corners with waterjet or core bit.
- e. Full cutouts must be completed with the waterjet if available.
- f. Complete all final cuts starting with the shortest cuts.

4. CUTOUTS

Different equipment can be used for cutouts including bridge saws, CNC machines and waterjets.

- L or U-shaped countertops with inside corners should always be fabricated from a single slab and must have a minimum of a 3/8" radius.
- If the distance between the cutout and the seam is less than 6", the seam needs to be supported.
- Cutouts for all drop-in sinks, cooktops, outlets, etc., should include an extra 1/8" from the edge to allow for expansion.
- Cutouts range from simple core holes for faucets and soap dispensers to complex cutouts for specialized equipment. It is suggested to have all equipment on the job site during the installation process as this is the best way to determine the shape and size of the core or cutout. Always refer to the manufacturer's recommendations.
- The customer should make the final decision regarding the location and size of the cutouts in their countertops.
- Additional support should be added to both ends of the cutout if the base cabinet cross bars are not within 3" of cutout.
- All hot cutouts for cooktops and other appliances that generates heat requires heat tape to prevent the transfer of heat to the countertop, that would cause damage. Always follow manufacturer's instructions.

5. LAMINATION

Laminate edge refers to the process of gluing pieces together to create a variety of edge profiles, including mitered edges, stacked edges and drop edges. This process is used to create more sophisticated edge profiles, depending on the customer's request. Below are a few laminated edges that are commonly used:

STACKED EDGES



Laminated Flat Edge



Laminated Half-Bullnose



Laminated Bullnose



Laminated Dupont



Laminated Ogee + Dupont

We recommend making sure that the lamination piece is the full length of the top piece and the corners are cut at 45 degrees. If the two laminated pieces must be joined, the joint must be cut at a 45-degree angle. The use of a mitered end cut reduces the tension on the surface, that may cause fractures. To ensure a color match on a laminated edge, the lamination strip should be cut from the same slab as the countertop. Proper clamping is recommended every 3" or 4" to properly secure the laminated edge.

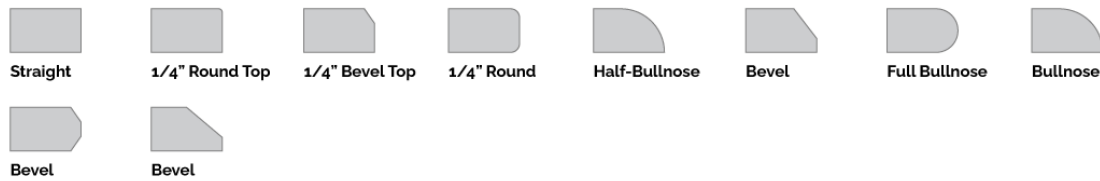
MITERED EDGE



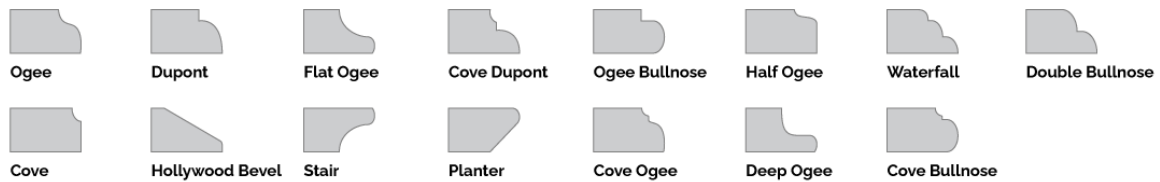
A mitered edge is done with a perfect 90-degree angle, joining two pieces of VariantQuartz™ each with a 45-degree angle.

OTHER POPULAR EDGES

Popular Edges



Premium Edges



6. INSTALLATION

Before installing, it is important that all cabinets are leveled and shimmed where necessary, considering a tolerance of 1/16" prior to final countertop installation.

After installing the support system and leveling, installation can begin. Re-measure cabinets and verify that the pieces will fit before placing the countertop in place.

If more than one piece, bring one at a time and test fit in their designated place. Adjust as necessary to ensure the best fit and alignment. If any adjustment cuts are necessary, we recommend doing it outside, cutting wet, to avoid dust inside.

We suggest a 1/8" space in each wall for expansion and contraction of the countertop. The gap should be filled with silicone.

To attach the countertops to the cabinets and support strips, we suggest the use of caulk that is 100 percent silicone, applying it every 8" or 12" around the perimeter and at the supports. We do not suggest the use of epoxy or acrylic adhesive or any liquid nails. Silicone will allow possible contractions and/or expansions.

Use extra silicon on all corners and joints, including around all cutouts.

7. SEAMS

The recommended seam width is 1/16", with a tolerance of approximately 1/32". Both pieces should level across a seam, with a tolerance of approximately 1/32". One side of a seam can be slightly raised, or one side can be slightly lowered, but not both.

Both edges to be seamed must be cut straight and true. If a waterjet is used when cutting, the edges should be ground flat to remove any imperfections from the cutting process.

Always make sure the color and vein pattern on the countertop matches across the seam, before applying adhesive.

Ideally, a pneumatic seam setter with a vacuum and posts/pins to level and make seams as tight as possible should be used. There are different manufacturers that supply this type of product. Seams should never exceed 1/16" wide.

We suggest cleaning the joined edges with denatured alcohol and wipe with a white cloth, applying strips of tape to the top and under the two pieces that were seamed. This prevents adhesive from dripping into the cabinets and allows easy clean up on the top of the surface.

8. SINKS

We recommend following the sink manufacturer's instructions when installing all sinks. Some sinks may require support systems like cradles, rail systems and sink setters.

Do not affix screws, nails or any other type of mechanical fasteners directly to your VariantQuartz™ countertop as these items may rust over time and the rust will bleed through the countertop.

All sinks must be sealed to the countertop using 100 percent silicone.

9. BACKSPLASHES

We suggest always cutting slabs for the backsplash from the same batch of your countertop to avoid color matching issues.

Always dry fit the backsplash and make sure all joints and edges are tight. Apply a continuous 1/8" bead of silicone to the bottom of the backsplash, adhering it to the countertop surface. Small amounts of 100 percent silicone should be placed every 4" or 6" on the back of the backsplash piece to adhere it to the wall.

Never hard seam backsplash to the countertop.