

F A B R I C A T I O N G U I D E

This guide is intended for use by Vetrazzo Fabricators and Installers as a reference. The guidelines incorporated herein, including references to third-party publications, must be adhered to in order for any product warranty to be valid. Any deviation from these procedures must be approved in writing by Polycor Vetrazzo, Inc. prior to commencement.

Updates to this guide will be issued periodically.
This guide is only valid for the *Designer Collection*.

**VETRAZZO® RECYCLED GLASS SURFACES
MANUFACTURED BY POLYCOR VETRAZZO, INC.**

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VETRAZZO

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Vetrazzo is a proud member of the United States Green Building Council.

Vetrazzo is tested and certified by NSF International.

Vetrazzo is made in the U.S.A.



DESIGNER COLLECTION

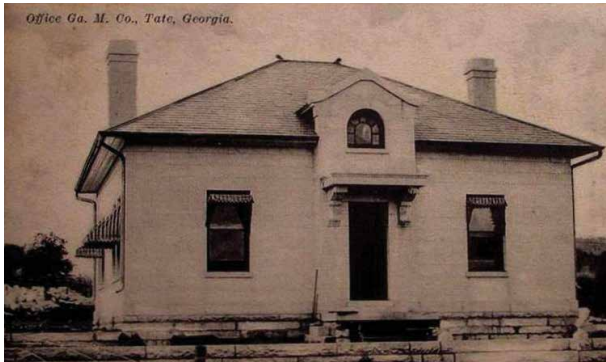


	DESIGNER
PRODUCT FOCUS	COMMERCIAL INDOOR
THICKNESS	1, 2, 3 CM
SIZE	MADE TO MEASURE (MAXIMUM 9' X 5')
FINISH	GLOSS

Designer Collection is made to measure, is ideal for commercial indoor usage, flooring and high traffic areas, and is non-porous and stain resistant.

FABRICATION GUIDE

ADOPTION OF THE MARBLE INSTITUTE OF AMERICA



**ALWAYS FEEL FREE TO CONTACT VETRAZZO
WITH QUESTIONS OR COMMENTS BY EMAILING**

INFO@VETRAZZO.COM

You are now a part of a growing network of Vetrazzo Fabricators. At Vetrazzo, we respect the skill and experience necessary to achieve a good reputation as a stone fabrication professional and, as a result, have adopted the Fabrication and Installation Guidelines of the Marble Institute of America, as stated in the MIA's Dimension Stone Design Manual (ver. 6) and the Technical Module for Residential Stone Countertop Installation (rev. 2005). Where applicable, references to Granite should be followed over other stone types.

While granite fabrication guidelines are to be followed, every material has unique attributes that warrant practice prior to completion of the first customer job. Vetrazzo is no exception. Specific techniques, tooling recommendations and maintenance protocols are discussed later in this guidebook.

AN INTRODUCTION TO VETRAZZO *DESIGNER COLLECTION*

Vetrazzo *Designer Collection* transforms recycled glass into exquisite, one-of-a-kind surfaces that showcase unique design and appreciation of the earth and its limited resources.

VETRAZZO *DESIGNER COLLECTION* SURFACES ARE:

- FABULOUS FOR COUNTERTOPS, VANITIES, TABLETOPS AND ISLANDS
- COMPOSED OF UP TO 87% RECYCLED MATERIALS (WOW!)
- MANUFACTURED PROUDLY IN THE U.S. BY PASSIONATE, EXPERIENCED CRAFTSPEOPLE

The glass is thoroughly mixed throughout the full slab thickness. Polished edges reveal more gorgeous dimensions of glass.

Vetrazzo *Designer Collection* uses 100% recycled glass including both post-consumer and post-industrial sources such as beverage bottles and containers, glassware, windows, windshields, optical lenses, traffic light lenses and a variety of other fascinating sources. There is, quite literally, a Story in Every Surface™

APPLICATIONS

VETRAZZO *DESIGNER COLLECTION* CAN BE USED IN A VARIETY OF COMMERCIAL AND RESIDENTIAL APPLICATIONS:

- countertops
 - bar tops
 - tub decks
 - shower surrounds
 - tables and desks
 - islands
 - vanities
 - floors / walls
- *not warranted in freeze / thaw conditions

PRODUCT DIMENSIONS

Vetrazzo *Designer Collection* is manufactured in 9' x 5' slabs, available in 3cm, 2cm and 1cm thicknesses and weighing approximately 700 pounds. Vetrazzo *Designer Collection* weighs approximately 12 lbs/sq. ft. for 2 cm and 17 lbs/sq. ft. for 3 cm.

TOLERANCES

JOINT (SEAMS) WIDTHS: Between two panels the joint should be 1/16" with a tolerance of $\pm 1/64$ " for a typical countertop application.

LIPPAGE: Maximum permissible height difference should be 1/32" limited to the center, front to back. The front planes need to align visually, the rear planes need to align enough to allow for a successful backsplash installation.

PANEL THICKNESS: Variance should be limited to 1/8" for slabs used in the same project.

HANDLING & STORAGE

Please inspect all panels for cracks prior to lifting . Damage may have occurred during transportation. Always use caution when moving panels.

Vetrazzo *Designer Collection* can be handled with the same equipment used for natural stone or engineered stone (quartz) slabs of a comparable size and weight .

Protect Vetrazzo *Designer Collection* panels from scratching or damage when placing on A-frames. Carpet or foam works well for padding under strapping and clamps. Protect material from flexing by providing proper support. Always adhere to OSHA guidelines.

Although Vetrazzo *Designer Collection* is UV stable, it is recommended to store slabs indoors or under cover.

Document serial numbers from panels when they arrive at the shop for fabrication. You will use this information for your records should you have any issues with slabs. Slab serial numbers are necessary for fulfilling warranty claims.

The serial numbers, two letters and 10 digits, are found on the edge of the Vetrazzo *Designer Collection* panel.

INSTALLATION & LAYOUT CONSIDERATIONS

Every panel of Vetrazzo *Designer Collection* is unique. Variations in the pattern and distribution of glass are an inherent part of its beauty. Every effort is made to ensure visual and color consistency between panels, however, the supply of recycled glass is always changing.

As glass variations are greater between batches, materials throughout an installation should be from the same batch and should bear labels with same batch number to improve color consistency.

- Visually inspect materials to be used for adjacent pieces to assure an acceptable color blend.
- Inspect in lighting conditions similar to those at the installation site.
- **Have client approve layout prior to cutting.**
- **Dry fit pieces in shop. Check color blending at seams!** Use care to protect the finished edges and surface when transporting and installing. Keep the surfaces free from grit and use padding under straps and clamps.

TEMPLATE LAYOUT

Template layout is vital; as with any material, Vetrazzo *Designer Collection* requires thoughtful placement of templates on the material before cutting. The first concern is shading or color matching. Shading differences with Vetrazzo *Designer Collection* is minimal. **Always get a second opinion before cutting a project that will need to be seamed. Customer involvement here cannot be overstated!** Any high-end product should be given extra attention; an unwanted surprise means an unhappy client. Call the client before cutting with an explanation of layout or email them a digital photograph. These simple steps can save a lot of agony.

COLOR BLENDING

Because of the unique nature of Vetrazzo *Designer Collection* and our glass sources, no two panels are exactly the same. While we endeavor to manufacture products as consistent as possible, Vetrazzo *Designer Collection* will exhibit variations in color, shade, glass size and glass particle distribution.

This is part of the inherent character and beauty of mixing post-consumer and/or post-industrial recycled glass. These variations are not structural; however consideration should be given when planning the layout. **Where seaming is required, start with panels from the same batch and inspect each panel for the best possible blending.** We recommend multi-panel jobs be purchased from the same Production Lot number. Always remember to write down the Panel ID.

FABRICATION TECHNIQUES & TOOLS



Fabrication equipment and tools used for granite fabrication, such as CNC machines and gantry saws, may be used to fabricate Vetrazzo *Designer Collection* panels.

Diamond saw blades and core bits are strongly recommended and will yield the best results.

As with all materials, avoid stress fractures when possible by using a radius on inside corners.

Since every shop will have different equipment; experiment with speed, feed rate, diamond cutting blade size and type to determine what works best. Too aggressive approach may cause excessive dislodging and chipping of glass along the cut. Inspect cutting tools frequently to ensure the highest quality results.

50 grit pads should be used to remove cutting marks, deep scratches and minor shaping. It is recommended to always polish edges using water. Proceed to the next grit levels: 100,200,400, 800, 1500, 2000, end with 3000 for the full gloss factory finish. We recommend high quality wet diamond polishing pads formulated for engineered stone such as those available from Braxton Bragg and Alpha. Do not surface polish the face of the slab.

EDGING

The profile edge of Vetrazzo *Designer Collection* offers another view of the incorporated glass; the cross section has its own inherent beauty. Simple edge treatments best showcase this unique perspective. **We recommend a minimum 3/16" edge radius.** Be aware that sharper edges are more prone to chipping and dislodging of glass. Below are some common edge details fabricators have successfully created with Vetrazzo *Designer Collection*. If a more complicated edge detail is requested, test it first.

Polycor Vetrazzo Inc. does not warranty glass chipping or dislodging. Edges are the responsibility of the fabricator.

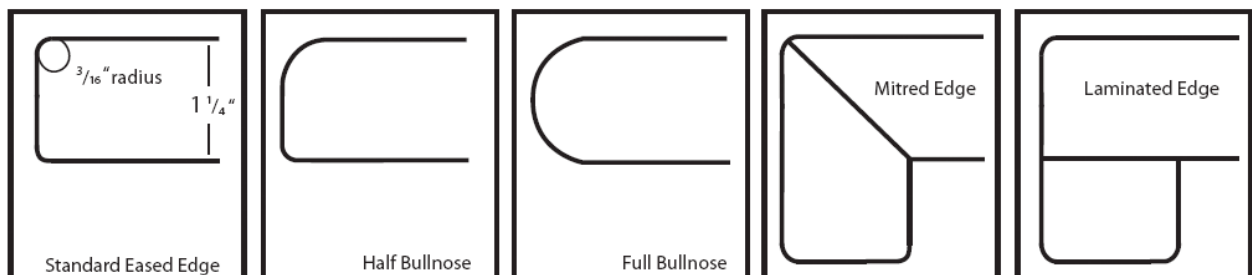


Image courtesy of Marble Institute of America from the "Residential Stone Countertop Installation Module" (rev. 2005)



AKEMI®

For the best results, shape edge and polish to 120 grit. Color match epoxy/polyester resin and apply to any void or glass blow out. After the fill cures, proceed with final polish.

Although it is highly unlikely that any glass will dislodge during edge polishing, should it occur, retain the piece(s) and reattach with a knife grade tintable epoxy/polyester resin. We recommend AKEMI Platinum, clear knife grade. If the glass is not recoverable, tint the clear epoxy/polyester resin using manufacturer's pigments to re-create the dominant color.

Color matching the fill with the material will determine the success of the overall installation. Use a razor blade to remove excess resin, let fully cure and buff to match surrounding finish. Follow manufacturer's directions and recommendations with polyester resins, epoxies and tints.

MITER AND STACK LAMINATING

Vetrazzo *Designer Collection* can be laminated either by stacked or mitered techniques. Always cut the material to be laminated from the same panel. When using the stacking technique, observe a 3 layer limit for a total width of 2.25 inches: if using 2cm material and 3.75" if using 3cm material. Occasionally milling may be necessary to remove the bottom surface of the panel if it doesn't appear to contain glass. Use standard stone techniques to create mitered edges.

Prepare the surface for adhesion by using a diamond cup wheel to score the surfaces. Thoroughly remove any dust before adhering. After applying adhesive, clamp every 4"-6".

Large aprons and skirting add signification weight, additional attachment methods will be necessary. For example, an apron longer than 4" needs "L" brackets every 8"-10" countersunk and glued in place or use stone glue blocks.

Laminations and seams are fabrication techniques and are not covered by Vetrazzo's warranty. Neither is the strength or appearance of laminations and seams since both are dependant upon fabricator skill and not the material itself. Vetrazzo's warranty covers the material only.

The process of stack laminating is to cut 1.25 to 1.5 inches past the determined edge of the finished countertop and to roll the lamination under the top 180 degrees. By doing so you've achieved a book matched edge that represents the natural flow of the material.

As with any material, check for any deterring factors before gluing the edge in place. For example, look for excessive white lines on the bottom of the panel and the edge of the lamination to be glued together.

MITER

Because of the perceived difficulty, this edge will always be met with a degree of anxiety yet, thanks to the strength of Vetrazzo *Designer Collection* the miter cuts will be clean and sharp with little to no chipping. With a properly tuned saw, a focused craftsman can produce substantially more lineal footage, with less effort, than required for other edge treatments.

Miter laminating is a process of laminating or creating skirts. Extra thought and template layout should be given when using this approach. Distance from the cabinet edge needs to be considered as the thickness of the mitered self-edge is predetermined. After the distance of the countertop is determined the saw will cut the lamination at a 46 degree angle with the length of the skirt measured to arrive with the proper length when glued to the counter top. The countertop will be cut at a 46 degree angle, this allows the lamination or skirt to fit with approximately 2 degrees of room at the inside edge and a tight fit at the outside edge. Adjust the edge with a square to assure a 90 degree drop down angle. This type of edge can have a more predictable outcome and the seam line is harder to see.

If there is excessive chipping or glass dislodging it is probably because:

- the saw needs to be tuned
- the feed rate needs to be adjusted
- the blade is glazed and needs to be dressed

SMOOTHING ROUGH OR UNEVEN EDGES

If a client calls with concerns over rough or uneven edges, identify the area and tape it off to prevent damaging neighboring surfaces. Start with a 4" diamond pad on your grinder; to prevent removal of too much material, always start with the lighter grit and work towards coarser paper if needed.

Always be light handed while working with Vetrazzo *Designer Collection*, it is not as hard as some granites. Work up to the final 3,000 grit pad, then blend the shine as you see fit.

Vetrazzo *Designer Collection* is very easy to work with and matching shine is simple with practice.

FILLING SURFACE VOIDS

Before proceeding with this process, use Painter's Plastic to tape off areas that could be stained or damaged.

1. Use a scrap of cardboard and mixing stick to prepare the epoxy. Use an epoxy that has a base color closest to neutral or clear. When mixing the color, choose the color that is most prominent in the *Vetrazzo Designer Collection*. Create an opaque mixture, keep in mind the hardener is white and will lighten the color.
2. Clean the void with compressed air and wipe with denatured alcohol. Apply the epoxy, forcing the epoxy fully into the void.
3. Let it harden and scrape flush with a very sharp blade the excess by holding down the blade at a 90-degree angle to the surface and rubbing back and forth until the epoxy is flush with the surface.
4. On occasion, the void is too shallow for the epoxy. We recommend, "Akemi Platinum" and "Wood and Stone Acrylic Super Penetrating" or other Cyanoacrylate-type glue.

SEAM FILLING

Seams are often the site of most complaints, whether it's from shading or poor application of epoxy/polyester. We recommend clear epoxy/polyester resins which should be tinted to achieve proper color matching.

Installer should tape each side of the seam to avoid "shadowing"- discoloration of surface caused by unwanted glue absorption-razor off excess glue while it is still workable. Remove tape before the epoxy/polyester hardens and razor off any excess.

COMMERCIAL BATHROOM SOAP DISPENSER LOCATION



Dripping soap will degrade any material. Avoid the problem by installing soap dispensers positioned so drips fall into the sink.

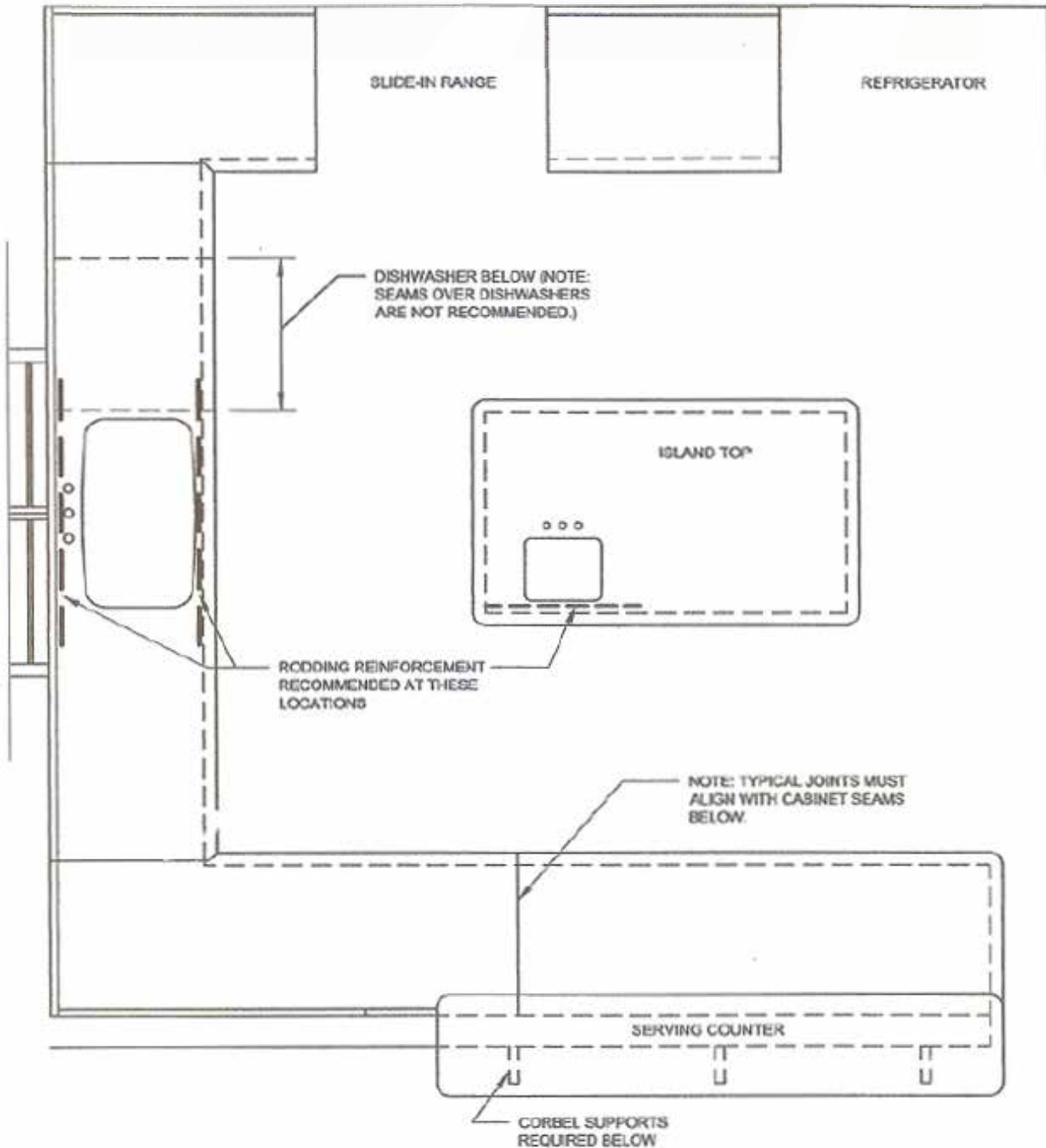
SINK REINFORCEMENT

Top mount and/or undermount sinks may be used. Undermount sinks can be mounted using standard stone practices. The span in front of the sink – or back where applicable – must be reinforced by insertion of a rod or other accepted strengthening practices. See Marble Institute of America's recommendations for sink reinforcement when in doubt.

OTHER REINFORCEMENT

Splines. Particularly narrow seams may be splined together with a steel or stainless key. The metal is fully encapsulated with polyester or epoxy resin and fitted to closely cut slots in the panel, similar to the "biscuit" joint reinforcements used in woodworking. **See the drawing regarding reinforcement (next page). All countertop seams / joints require full support underneath. Do not locate seams in the middle of open spans.**

SPANS & CANTILEVERS



**TYPICAL KITCHEN LAYOUT
(WITH JOINTS AT CORNERS
IN LIEU OF SINK)**

- Spanning between two supports shall be limited to 2'0"
- Cantilevers 12" or longer require corbels
- Corbels must be installed a minimum of 24" on center
- Corbel length must support cantilever distance within 2" of overall length
- All inside corners must have minimum 3/8" radius

SEALING

Vetrazzo *Designer Collection* doesn't need to be sealed.

STAIN

Vetrazzo *Designer Collection* is less likely to stain than marble and equivalent to some granite. But you do have to care for it.

87% of the surface is glass, which is impervious to stain. However, staining agents like spices (especially curcumin - component of turmeric and yellow mustard for example) will stain the matrix of the surface (the resin area between glass) if not cleaned up right away. And acids (like red wine, balsamic vinegar) will leave a trace if allowed to remain on the surface for a prolonged period.

If you clean messes up quickly, your Vetrazzo *Designer Collection* will remain unchanged.

REPAIRS

Vetrazzo *Designer Collection* is extremely durable, and may never need repair. However, should it become damaged and you need it repaired, contact your Vetrazzo Certified Fabricator. Just like if an edge of granite was damaged, if a piece of glass chips out of the edge, keep the glass if you can. The fabricator can re-adhere it. If the glass is not available, don't worry. The fabricator can still repair it.

CUSTOMER CARE AND MAINTENANCE

[CLICK HERE](#)

FOR THE CARE AND MAINTENANCE GUIDE ON VETRAZZO.COM



WARRANTY

Polycor Vetrazzo, Inc. warrants that at the time of shipment from Polycor Vetrazzo the materials will be free from defects in material and workmanship. This warranty shall expire at the time of fabrication. In the event defective materials are received, Polycor Vetrazzo, Inc. will have them repaired or replaced.

[CLICK HERE](#)

FOR THE WARRANTY ON VETRAZZO.COM

QUESTIONS OR COMMENTS?

Vetrazzo *Designer Collection* is a unique material and its properties and fabrication techniques, like any other material, require practice to master. It is important to us that you feel comfortable working with Vetrazzo *Designer Collection* prior to fabricating a customer job. Should you have any questions about Vetrazzo *Designer Collection* or the fabrication process, please email us at tech@vetrazzo.com.