



TorZo Fabrication Guide, Tiikeri-Seeta

Material Composition and Handling

Both Tiikeri and Seeta are infused with an acrylic resin material that can be cut, machined and sanded with standard tooling. This is because even after the infusion process, the material composition is still over 50-70% cellulose based.

Similar to other surface materials, including wood, rock, granite, and all other 100% acrylic resin based materials, we the manufacturer recommend that the fabricator wears a dust mask to prevent inhalation of any fine particles. The MSDS is available online at www.torzosurfaces.com or can be provided by the distributor.

Material should be kept flat at all times, with a top and bottom cover sheet, to prevent the introduction of "bowing" to the panels.

Material should be kept clean from particles that could cause small nicks or scratches to the material surface during the fabrication process, and/or be included into a surface coating if coating is to be conducted post fabrication.

Material should be kept from direct contact with water, especially if the sheets do not have a finished top coat. This will prevent any potential discoloration due to water spot damage.

Material Properties

All boards are sanded to a 220+ grit, and have a tolerance of +/- 5,000 inch. Hence material thickness is relatively very uniform.

TorZo materials can have a certain amount of flex associated with the material sheets. Thus it is recommended that when fabricating tabletops and countertops with the thinner materials that the fabricator glued or screw the material to a 3/4" plywood or MDF template backer board in order to insure a flat surface. This also significantly reduces the costs associated with the thicker (1" and greater) material.

Currently, sheets come standard in (1/2" x 36" x 10') dimension for Seeta, and in (5/16" x 35.8" x 71.7") and (5/8" x 35.8" x 71.7") dimensions. The Seeta and Tiikeri panels have gone through a UV fill and sand process in order to fill most of the voids that are associated with the composite board materials that we infuse. However, there will still be a certain amount of voids that will need to be filled in the finishing

step when fabricating horizontal applications. It is important to have a full fill finish to provide maximum protection of the surface.

Note; The 5/16" Tiikeri is not completely flat. This material is intended to be laminated to a substrate. The advantage is that it is somewhat flexible and therefore can be used in radial applications. Standard it can be applied down to a 20" radius and with additional sanding it can even be applied on a tighter radius.

Cutting

Material can be cut using standard carbon tip blades. Avoid feeding the material too fast to prevent binding or too slow to prevent burning.

Machining

Material can be routed using standard carbide router tips. Material can be hand routed or routed on a C&C machine. Also, standard V-groove units with carbide based tips can be used for dropped edge applications.

Following the fabrication process the material should be sanded (ref: below) before the coating process.

Sanding

We recommend that the material be very lightly sanded using a random orbital sander to a 400 grit finish. This will fully eliminate sanding marks left by the belt sanding process.

Care should be taken NOT to over sand the *Seeta* or *Tiikeri* material. If too much material is sanded off, then the filler material that has been processed into the material to fill voids during a manufacturing step will be removed resulting in surface cratering. Though both the Tiikeri and Seeta have gone through our fill and sand process, both will still contain a certain amount of unfilled areas or "voids" which we recommend filling in the coating process.

If material has been over sanded, no amount of sanding will eliminate or remove the voids associated with the material.

Gluing

Due to the water resistance of the material, the manufacturer does not recommend any moisture cure adhesive.

TorZo recommends using a solid surface epoxy or like product for edge gluing, including mitered edging, or seaming applications. Titebond II-III type adhesive products will also work but you need to allow for the longer dry times

TorZo recommends using a backer board for all horizontal applications for the Tiikeri and Seeta product lines. Liquid Nails or contact cement are great for this application. Willamette Valley

has a zero VOC adhesive similar to Liquid Nails called Extreme. This product works equally well.

Mitered Edge Application

All TorZo Surfaces solid surface products are capable of incorporating a mitered edge technique. CNC machines are great for this application, especially for larger jobs.

A clear solid surface 2-part epoxy system can be used to glue the drop edge pieces together. The clear epoxy system actually takes on the color of the panels being glued and thus eliminates or minimizes glue lines.

Under Mount Sealing/Installation Instructions

Currently, TorZo Surfaces does not recommend Seeta or Tiikeri product lines for under mount sink applications. The porous nature of these material cores makes the sealing of the exposed edges in water environments to be very tricky and difficult. Top mounted sink bowls work great for these product lines.

Sink & Faucet Sealing/Installation Instructions

Installing a top sink mounted bowl would be identical to installing the faucet. After cutting out the hole with the appropriate size cutting bit, apply a liberal amount of silicon caulking on the exposed edge and then install the sink bowl, faucet, etc.

Seaming Application

All TorZo Surface products can be seamed using standard techniques with a great result. These techniques include straight edge-edge gluing, and incorporates either biscuits or splines. The template backing should come just short of the edge seaming that is to be done.

A “dog bone” clamp assembly, similar to what is used for prefab counters tops, can be used to butt the edges up. A solid surface epoxy, using a best match color, can be used to glue the edges together. Once the fabrication and seaming has been completed, the seams should be sanded smooth. Once this is done, the sealing and top coat spray application can be done.

For cases where the seaming has to be done in the field at installation, then the following is recommended. Using the same dog bone assembly clamps mentioned above, bring the edges together without applying the adhesive to the edges. Sand the seamed area smooth, and then complete the sealer and top coat spray coats. Once the fabricated piece has dried, then it can be transported to the installation site in pieces and assembled on site.

Finishing

As mentioned above, both the Tiikeri and Seeta material will still have a certain amount of voids on the surface. It is important, especially for horizontal applications, to provide a full fill finish in order to maintain maximum protection of the surface. TorZo recommends using a polyester

fill and seal coat before applying the top surface coat. Before applying any coating, it is important to wipe the material clean with a damp rag using mineral spirits. This will remove residual sanding dust and other type particle. The advantage of the TorZo products is that they are very hard. This allows the fabricator to use very hard coatings, which is better for high wear applications.

In addition, a 2-part polymer coating can also be used. This coating is not sprayed on, it is typically poured on and heat is applied on the surface to eliminate bubbles that are created as the coating penetrates the voids. The 2-part polymer coating is becoming more common in high wear applications such as restaurant tables and bar tops. The one potential drawback of this coating is that it comes in a gloss finish, and is not available in a matt or flat finish.

Typically, polyurethanes, conversion varnishes or lacquers can be used as the top coat. The above mentioned 2-part polymer systems go on thicker and can act as both the sealer and top coat.

Sherwin Williams - PU-386 polyester basecoat
Environmental Technology Inc. – Crystal Sheen (zero VOC)

TorZo recommends a minimum of two top coat applications for high wear applications such as countertops, vanities and tabletops.

Note: In order to ensure product performance, TorZo Surfaces requires a single coat spray application for the back side of any fabricated projects. The reason for this is two fold. During our process, we make sure to keep the boards balanced. What we do to one side, we automatically do to the other. This includes sanding step and the fill and sand step (when applicable) as well. Second, the idea is to seal all six sides. This is regardless of the application being low wear vertical or high wear horizontal.