

AVONITE™ Solid Surface Fabrication Guide

2024 Global | English

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aristechsurfaces.com trinseo.com

This fabrication guide has been prepared to assist the fabricator and installer in the proper methods for seaming, polishing, patching and handling our AVONITE™ Acrylic Solid Surface.

AVONITE™ brand, building and surfacing materials are warranted to be free from defects at time of manufacture. Any materials found defective will be replaced promptly.

Information or references to application, code compliance or specific standards are provided for convenience only. The accuracy or suitability of any recommendations in this guide must be verified by the user, Trinseo disclaims any legal responsibility.

WHO WE ARE

Since 1983, the AVONITE™ brand has been a pioneer in solid surfacing. We have been known for our unbridled passion and spirited innovations. We have been with many of you from the beginning. For more than 30 years, we’ve celebrated the relationship between extraordinary product, design and craftsmanship. We are inspired by and committed to designers and fabricators with a passion for bringing forth original ideas and taking them beyond the ordinary.

HOW TO USE THIS GUIDE

We at Trinseo hope you will find the following Fabrication Manual to be a useful tool. It was created to help you discover unlimited design possibilities, which will lead to wonderful solutions for you and your clients. Although many applications are covered in this guide, there will be new applications that may not be covered in detail. Our fabrication guide is designed to provide you with the fundamental

knowledge of fabrication. These fundamentals can be adapted for new applications.

If you have specific questions or requests, our friendly and expert technical staff is eager to help. Feel free to call your regional representative or contact us at +1 (800) 428-6648.

Important updates such as Technical Bulletins published after the printing date of this manual are also available for download. Certified fabricators should periodically check for updates and add them to this guide. For additional copies of this guide or quick references for your clients, please visit www.aristechsurgfaces.com/avonite, where the complete guide and individual sections are available for download.

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1. Introduction

1.1 AVONITE™ Product Introduction

Our AVONITE™ Solid Surface products bring innovation to today’s most popular colors. Our production facility allow us to produce acrylic solid surface up to 60” wide. This wide width can save you time and money by eliminating seams and reducing labor costs. These savings can be even more dramatic using our Right-Size sheet capabilities.

Visit www.aristechsurgfaces.com/avonite for details.

1/2” Standard Sheet Size is 30” x 144” x 12 mm (76.2 cm x 365.7 cm x 12 mm)

1/4” Standard Sheet Sizes are:
36” x 96” x 6 mm (914 mm x 2,438 mm x 6 mm)
48” x 96” x 6 mm (1,214 mm x 2,438 mm x 6 mm)
60” x 96” x 6 mm (1,518 mm x 2,438 mm x 6 mm)

These products are made in the USA at our Florence, KY facility.

Product identification:

Color ID #
8570

Wet Wall panel system

The AVONITE™ Wet Wall Panel system includes our seamless wide wall panels. The standard wall panels are available in 36”, 48” and 60” widths and a full 96” high. These standard dimensions are stocked in six popular colors and are available in all AVONITE™ Acrylic Solid Surface products. (MOQs may apply).

1.2 Health and Safety Information

FOR SHEET FIRST AID PROCEDURES

AVONITE™ solid surfacing material is non-toxic; however, during fabrication such as sawing, routing, and sanding, dust consisting of cured resin and filler is generated. This dust is classified as “Nuisance Dust”.

Inhalation:

“Nuisance Dust” – Overexposure to dust may cause irritation of the respiratory tract. Should this happen, remove the affected individual to fresh air. If symptoms persist, consult a physician.

Skin or eye:

- a) “Nuisance Dust” – May cause irritation. Wash skin and flush eyes with water for at least 15 minutes. Contact physician if irritation persists.
- b) Styrene – Vapor concentration is expected to be too low to cause irritation, but odor is recognizable. Excessive exposure can cause severe eye irritation and moderate skin irritation. Wash skin and flush eyes with water for at least 15 minutes.

Exposure control methods:

Provide sufficient ventilation and dust pick-up at saw, sander, drill, or router to keep dust level below 10mg/m³ TWA (Time Weighted Average) for total dust, or provide and make mandatory the wearing of NIOSH approved fitted dust respirators.

Exposure control methods: (cont.)

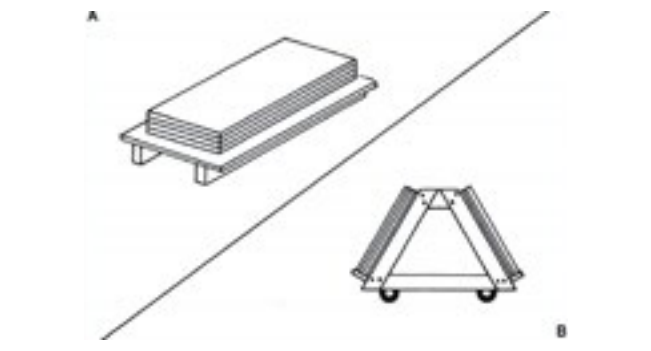
Wear protective leather or cotton gloves, safety glasses, and safety shoes when installing or fabricating AVONITE™ solid surfacing material.

Disposal procedures:

Dust from fabrication operations is non-hazardous. Collect in impervious bags. Dispose of dust and scrap in accordance with local, state, and federal regulations.

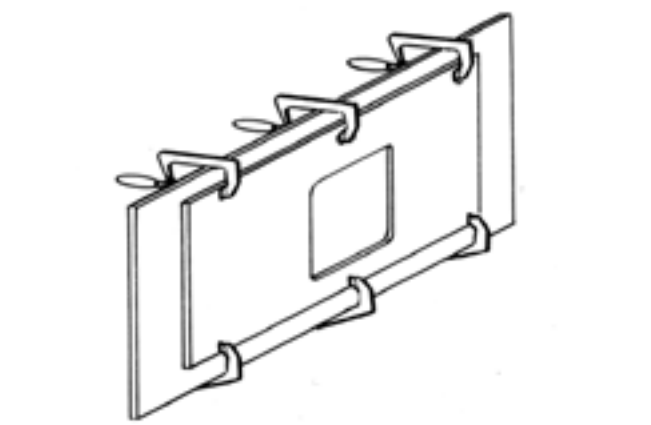
FOR MORE COMPLETE INFORMATION,
REQUEST THE REQUEST THE (SDS) SAFETY DATA SHEET.
or visit www.aristechsurgfaces.com/avonite

1.3 Storage and Handling

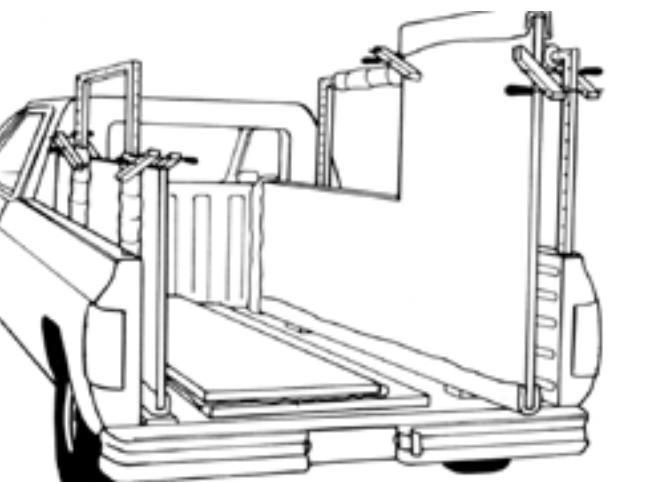


AVONITE™ material should always be stored FLAT and evenly supported. **Figure A** demonstrates a framed substrate. **Figure B** is an A-Frame storage bin.

Always carry sheets upright in a vertical position. To avoid chipping and scuffing, do not drop or drag sheets. Fabricated sections with angles or seams should be handled carefully with support at the angled or seamed area. A carrying board should be used for tops with cut outs.



AVONITE™ can be transported lying flat on an evenly supported and padded surface. Large fabricated sections should be transported on edge. Pad the edges to prevent damage and brace to prevent movement.



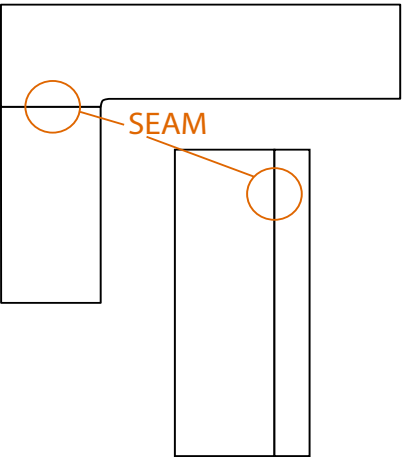
When transporting AVONITE™ sheets in an exposed vehicle, pieces should be wrapped to prevent damage from extreme temperature changes. Avoid exposing fabricated pieces to direct sunlight. Uneven solar heating will cause distortion of fabricated parts. Allow pieces to cool to room temperature at the job site prior to installation.

1.4 Color Matching

Every AVONITE™ sheet has a label which displays an identification number. When ordering multiple sheets to be seamed, be sure that sheets come from the same batch.

Please notify the distributor of this fact when ordering. Advise that you need sheets with consecutive numbers. Although AVONITE™ sheets have been inspected prior to shipment, always remove the peel coat and inspect for color consistency, surface blemishes, warping, and dimensional consistency.

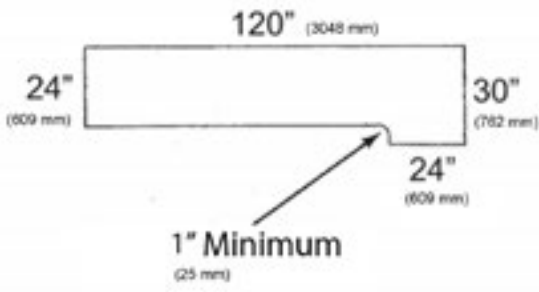
Remove the protective peel coat and arrange the sheets in the manner in which they will be installed. Sand 12”-16” (305 mm - 407 mm) of the surface to verify color match. After sanding, wet the material with alcohol or water.



1.5 Layout

THE L - TEMPLATE

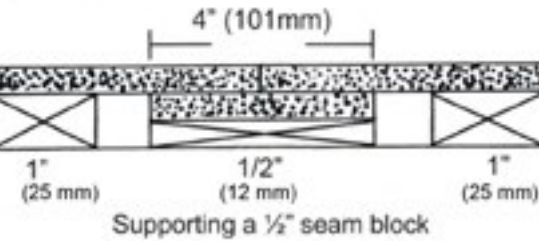
The L-Template is a convenient way to fabricate the L or U shaped counter top. The L-Template should be 10’ (305 cm) long by about 30” (76 cm) wide. The inside corner will have a minimum 1”(25.4 mm) radius. The L-Template may be reversed and used for either side. Clamp the L-Template securely to the AVONITE™ material. Place some registration marks on the backside and end of the template. Use a 3 HP router and template guide for cutting. After cutting, turn the material bottom side up to bond on the drop edge and inside corner build up. When the solid surface adhesive has cured, turn the material face up and re-clamp the L-Template. Using the registration marks, place the template far enough back to remove the excess material and AVONITE™ Solid Surface Adhesive. This will result in a clean and smooth edge requiring minimal sanding.



LOCATING SEAMS

When you lay out your job, consider where you need to place the seams. Make as many seams as possible in the shop and not in the field. All seams must be supported. Avoid placing seams in the following locations:

- 1. Inside corners minimum 1” (25 mm)
- 2. In cut outs
- 3. Over dishwashers or other heat producing appliances
- 4. When using dark colors, avoid placing seams in direct sunlight

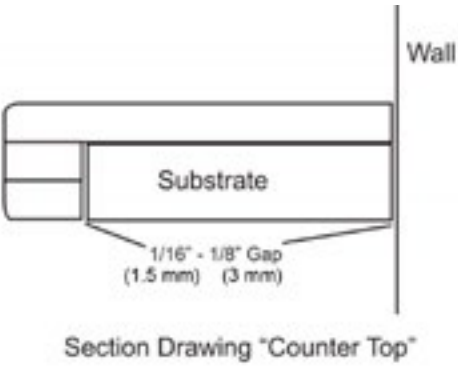


SEAM BLOCKS

The use of seam blocks is recommended for all seams. Seam blocks should be 4” (101 mm) wide and at least 1/2” (12 mm) thick. Join the seam block to the underside using AVONITE™ Solid Surface Adhesive. Spread the adhesive over the entire surface so there are no voids. The seam block should cover the entire length of the seam.

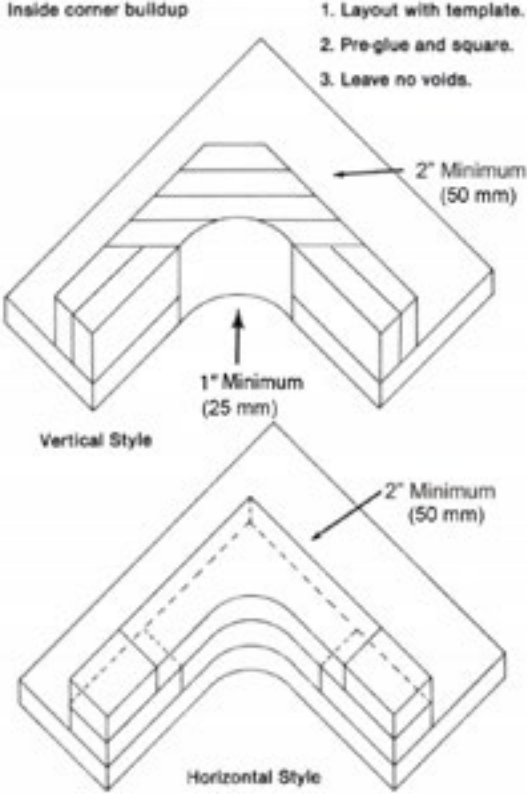
Seam blocks are highly recommended. Seams are not covered under warranty. The seam block provides you with the strongest seam possible.

Class I (Filled)—1/8” (3 mm) for every 10’ (304.8 cm)



TILE BACKSPLASHES

The transition from tile to AVONITE™ should be silicone sealed and not grouted.



INSIDE BLOCKS

AVONITE™ material requires a minimum 1” radius on drop edge inside corners. This diagram shows the recommended build-up. After the build-up is made, use a template to cut the desired radius (see L-Template).

EXPANSION AND CONTRACTION

Like all solid surface materials, AVONITE™ material expands or contracts with temperature variation. The following changes in length may occur with a swing in temperature of 55 °F (31 °C).

2. Fabrication

2.1 Tooling

AVONITE™ material can be easily machined with ordinary woodworking tools, such as routers, saws, planers, lathes, drills, and sanders. All blades and bits should be carbide tipped.

ROUTERS

For general purpose routing, a 1-1/2 to 2 HP router maybe used. For heavier cutting of thick edges and cut outs, a 3 HP router is recommended. A 1/2” (12.7 mm) shank carbide bit is needed to minimize chatter for all routing with the exception of small details like a 1/4” (6.3 mm) round over or a pin stripe inlay. AVONITE™ material should be properly supported during all phases of fabrication.



CUT OUTS AND CURVED CUTS

A template and a router is mandatory for all cuts. The use of a saber saw will leave a rough edge where stress cracks can occur. Use a template for all inside and outside corner radiuses.

Helpful Tip

Two square feet of color matched material should be left on the job site for future repairs. Material should be placed under a bottom drawer or mounted to the inside of the sink cabinet. Mark the material to identify it is for potential repairs.

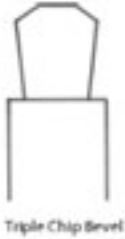
TABLE SAWS

A table saw with a minimum 2 HP motor can be used to cut AVONITE™ materials. The sheets should be cut face up. A good quality rip fence is necessary for accuracy. A triple chip bevel saw blade is needed for a clean cut with minimum chipping. A 10” (254 mm) diameter blade should have 40 teeth with a 20° positive hook. Raise the blade 1-1/4” (32 mm) above the surface of the material for the best results.



RADIAL ARM AND MITER BOX

A triple chip bevel saw blade should be used for clean cuts. These saws require a 10” (254 mm) diameter blade with 60 teeth and a 5° positive hook.



TOOLING SUPPLIERS:

Forrest Manufacturing

www.forrestblades.com
1-800-733-7111

Specialtytools.com

1307 Oak Ridge Farm Hwy
Mooresville, NC 28115
800-669-5519
904-880-4944

The Pinske Edge

119 Main Street, PO Box 68
Plato, MN 55370 USA
800-874-6753
320-238-2196

FESTOOL Products

www.Festoolproducts.com
247 Mahopac Avenue,
Yorktown Heights, NY 10598
877-866-5688

Fred M. Velepco Co. Inc.

www.velepco.com
71-72 70th Str.
Glendale, NY 11385
800-365-6636

Monument Tool Works

28 Mill St,
Assonet, MA 02702
508-644-2400

2.2 Machining Seams



Use a good quality 1-1/2 – 2 HP router. Refit base with square base. Two dimensions on base allow you to turn base and remove an additional 1/16” (1.5 mm). Always use a 1/2” (12.7 mm) double fluted carbide router bit.



Set the router flat against straight edge. Move router with even feed speed. Allow router sound to indicate the rate of feed.



After routing edges, dry fit to assure a flat, true edge. In the dry fit process, the seam should virtually disappear. If the seam is not done correctly, redo by taking off an additional 1/16" (1.5 mm). Check by dry-fitting again.

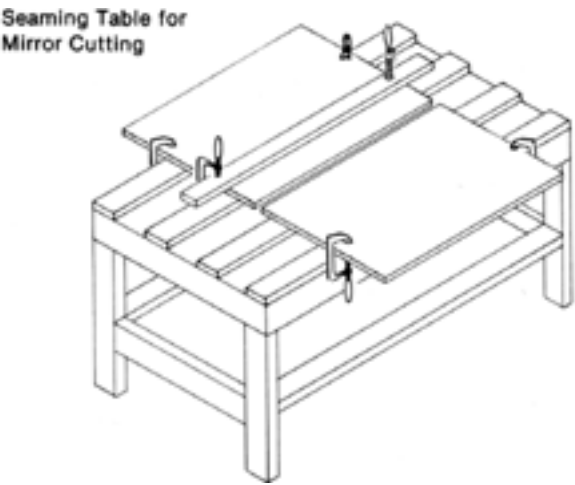


After routing, check again for a quality dry fit. Only after you have achieved a good dry fit should you proceed.

2.3 Seam Preparation



With 100 grit sand paper on a hardwood block, lightly score the edges to be seamed together. This step aids the adhesion between the two surfaces. Make one or two passes only. Be careful not to sand the top edge.



MIRROR CUTTING

Mirror cutting is a method of machining seams which cuts both edges to be seamed at the same time. Use only a 1/2" (12.7 mm) shank double fluted bit. Place the

two pieces to be seamed 1/4" (6.3 mm) apart and secure them firmly to prevent movement. Clamp your straight edge to one side. The router must be fed through with a continuous movement without stopping. The two pieces will fit together exactly.



WAVY BIT SYSTEM

Another way to machine seams is to use the Wavy Edge Router Base and Bit to make two interlocking surfaces that fit snugly together. The seam edges align perfectly and do not slip, and a wavy surface seam is stronger because it has more adhesive area allowing better bonding. Here's how: rout one seam edge with one side of the stepped Router Base, then rotate the router 180 degrees and rout the other seaming surface. Use a high-grade carbide bit with a reversible insert blade to cut the wavy seam. Inserts eliminate re-sharpening and ensure the accuracy of every cut. You save time preparing the seams, and the automatic alignment means you will not do as much sanding to get a professional finish.



2.4 Joining

ADHESIVE

Trinseo recommends ordering solid surface adhesives through our preferred suppliers:

Big Dog Adhesives
435 Harrison Street, Elkhart, IN 46516
www.BigDogAdhesives.com

Forgeway Ltd
Unit 3, Exeter Logistics Park
Exeter, Devon
EX5 2GB, UK
www.forgeway.com
Contact: Bruce Ellis
bruce.ellis@forgeway.com

+44 1626 367070
+44 7384 240512

IPS Adhesives (Unika)
New York Way,
New York Industrial Park,
Newcastle upon Tyne,
NE27 0QF, UK
Contact: Gary Holt
gary.holt@ipsadhesives.com
Mobile: +44 7874 867812

CARTRIDGES

Each cartridge contains 250 ml (10 oz.) of adhesive and will adhere 35 to 45 feet (12.1 M) of 1/2" (12.7 mm) seam. The adhesive flows through a static mixer tube and is ready for use. Two mixer tubes are included with each cartridge. To assure positive flow of activator, dispense a small quantity of adhesive before installing mixer tube. 50 ml sizes are also available for European locations.

Refer to machining seams section before applying adhesive.

ADHESIVE STORAGE

It is recommended that the adhesive be stored in a temperature-controlled environment. The adhesive should be acclimated to at least 60°F or 15°C before being used. Store cartridges in an upright position as shown in photo. Storage at temperatures above 75°F or 24°C may affect the shelf life, and could adversely affect proper curing of the adhesive. All cartridges are dated with an expiration date. Do not use expired adhesive.



Scoring the top of the surface strengthens the bond of the excess adhesive. This helps prevent the critical top layer of the seam from pulling out when machined.

Fabrication tip

From time to time the bead of adhesive dispensed with the solid surface adhesive cartridge will not contain the prescribed amount of hardener. This may arise for a variety of reasons, but the end result is that small sections of the seam may not set up as rapidly as others. There are techniques that will reduce the variation in setup time. Once the bead of adhesive has been dispensed, a popsicle stick applicator may be used to spread the adhesive over the bonding surface. This serves to more uniformly blend the adhesive with the hardener and prevents variation in the curing time of the adhesive. Another helpful technique used frequently is to dispense two thin beads as opposed to one thick bead. This method overlaps any possible gap in the hardener and prevents uneven hardening.

DISPENSING OPTIONS

Adhesive cartridges are designed to fit only in a 10 to 1 ratio system. Our systems are available in both manual and pneumatic styles.

Unique Properties

- The activator is opaque and viscous, much like a paste.
- The resin is similar to the viscosity of honey.
- The “clear” solid surface adhesive is “foggy” in appearance rather than “water clear.”



Fabrication tip

When a small amount is needed there is no reason to waste a mixing tube. Simply remove the end plug and squeeze the adhesive into a paper cup and stir for one minute.



2.5 Clamping Seams

CLAMPING METHODS

Before clamping seams, be sure to double check the following:

1. Surfaces to be bonded are properly scuffed with 100 grit sandpaper.
2. Separation paper is in place.
3. Pieces are properly aligned and level.
4. Edges are clean.

Prepare some reusable glue blocks made from scrap pieces of AVONITE™ material. They should be 1”(25.4 mm) thick by 1-1/2” (38 mm) w x 2” (51 mm). Bevel the edges and drill 1/4” (6.3 mm) holes as shown in Figure A so the

isopropyl alcohol will penetrate and release the hot melt bond when it is time to remove them.

On a standard countertop, hot melt 3 pairs of blocks about 6”(152 mm) apart across the seam area. Bar clamps are then used to bring the joint together. Be sure the glue squeezes out to ensure a tight seam. However, avoid using excessive pressure which may cause too much glue to be squeezed out resulting in a weak joint.



After the adhesive has cured, remove the blocks by applying isopropyl alcohol and allowing a few moments for the hot melt to soften. Also apply alcohol in the 1/4” (6.3 mm) holes to allow for penetration of alcohol in the center of the block. Then place a chisel under the beveled edge of the block and gently pry; do not use excessive force. If the block does not free immediately, apply more alcohol and allow to soak for a while longer.

Other effective clamping methods use the Pinske Power Grips with brackets and turnbuckle, as shown below.





or the Paralign Clamps shown on page 14 (Available through Monument Toolworks).

Other innovative devices designed by independent suppliers may save time or simplify difficult tasks. If there is any question regarding the use of such devices, please contact AVONITE™ Technical Services at +1 (800) 428-6648.



2.6 Finishing Seams

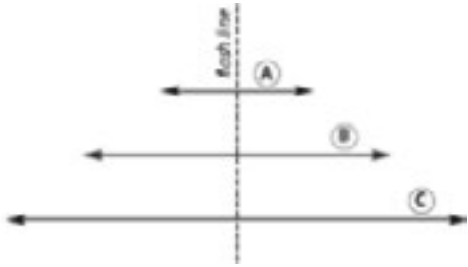
REMOVING THE FLASH LINE

Do not attempt to sand away the flash line with a belt sander. Instead, attach two skis to the base of a router. Use a flat bottom cutting bit and lower the cutter to just over the surface of the sheet. Cutting the flash line off this way eliminates sanding time.



SANDING SEAMS

The following procedure will efficiently finish seam areas. For illustration, please refer to the below:



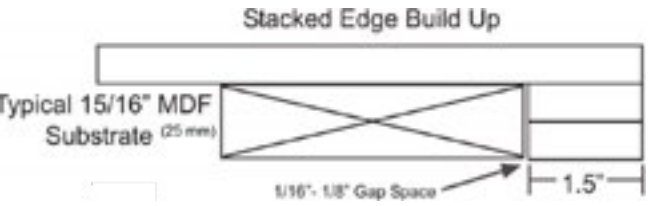
1. Trim the adhesive flash line with router on skis or offset trim router.
2. The remainder of the flash line should first be sanded with 100 micron paper. It is important that sanding extend on either side of the seam, without concentrating directly on the seam, as illustrated by Point A. The 100 micron sanding should extend to about 6" (152 mm) on either side of the flash line. Concentrated sanding could cause a valley, or dip, in the seam area.
3. The next step is to sand with 80 micron paper. The sanding area now extends to about 12" (305 mm) on either side of the flash line, as shown in Point B.
4. Once the seam is sanded level, continue the standard finishing procedure by feathering out the finish in the seam area to blend with the final finish of the top, as shown in Point C.

Sanding should not concentrate directly on the flash line, but extend on either side to feather-in the finish.

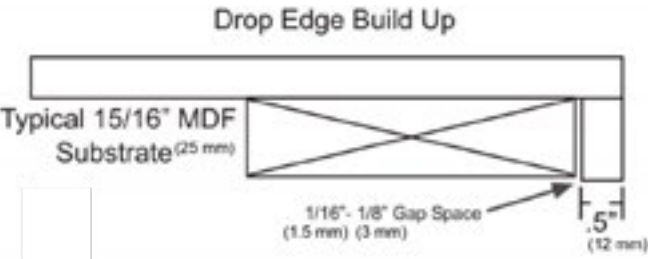
2.7 Edge Build-Ups

GENERAL REQUIREMENTS

The construction of your edge build up is determined by the profile you wish to achieve. Strips are laminated together to acquire the bulk for the design. Confirm that your construction provides a minimum 1/2" (12.7 mm) of bonding surface area after the profile is cut. Larger bonding surfaces create stronger edges. The diagrams below demonstrate construction methods referred to as Stacked Edges and Drop Edges. In general, Stacked Edges provide the greatest bonding surface area and therefore are the preferred method. Stacked Edges also allow layers to be put on one at a time. This ensures tighter joints and to offset the build ups at inside corners. Sand all surfaces to be glued with 100 grit paper sanding block to enhance the bond. **It is highly recommended that all edges have a minimum 1" (25.4 mm) bonding surface.**

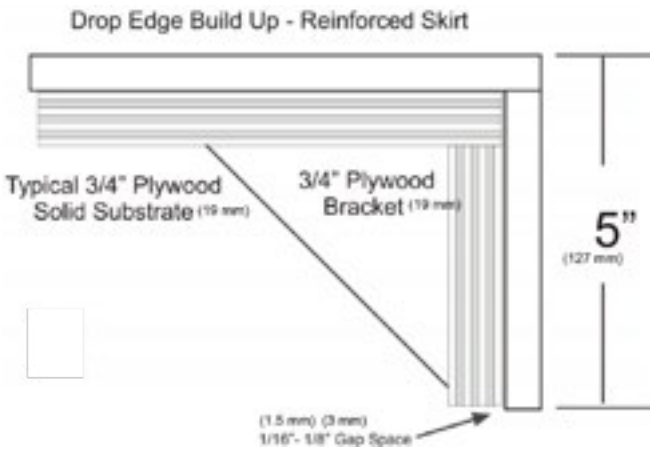


Stacked Edges: laminate strips together for the desired thickness. SAND BOTH SIDES of the strips with 100 grit. Laminate strips face to back.



Drop Edges: use a single strip turned vertically on edge. This is a common method but is the weakest construction method due to the minimum bonding surface area. This method is also limited to small round over or beveled profiles. Additional strips can be used the increase bulk and strength. A rabbit joint can be

useful for hiding seams with colors that patterns when utilizing a dropped edge.



Any drop edges greater than 1-1/2" (38 mm) tall require reinforcement. The above shows a typical skirted front vanity. Note that the skirt is reinforced by plywood. The plywood substrate is also reinforced with brackets to prevent damage.

For added reinforcement we recommend gluing a 1/2" (12.7 mm) x 1/2" (12.7 mm) slice of solid surface behind the skirt edge joint.

V-Grooving edges is another form of drop edge. Although the bonding surface is somewhat increased, any v-groove edges over 1-1/2" (38 mm) tall should be reinforced.



Rabbet Joint, shown above.

2.8 Clamping Edges

LAMINATING BUILD-UP DIRECTLY ON COUNTERTOPS

Edges should be straight and free of chatter-marks. Clean bottom of sheet and fascias with isopropyl alcohol. Light block sanding may be needed where edge is to be applied.



- Dry fit and mark where they go with arrows. Hot melt some guide blocks along the backside of the edge.
- Glue and clamp one edge build up at a time to prevent glue from setting up before build up strips are applied.
- Apply two small beads of adhesive to the surface.
- Place the drop edge in the glue and make sure an even flash line develops.
- Hold the drop edge back 1/8" (3 mm) to avoid any chip out on seamed edge.
- Place spring clamps 2" (51 mm) to 3" (76 mm) apart.
- Keep clamps straight to avoid tilting the drop edge back. The tips of the clamps should be in the center of the drop edge.
- After the adhesive has cured, clamps may be removed. The edge can now be routed to your final configuration.



2.9 Machining Edges

LISTEN TO YOUR TOOLS

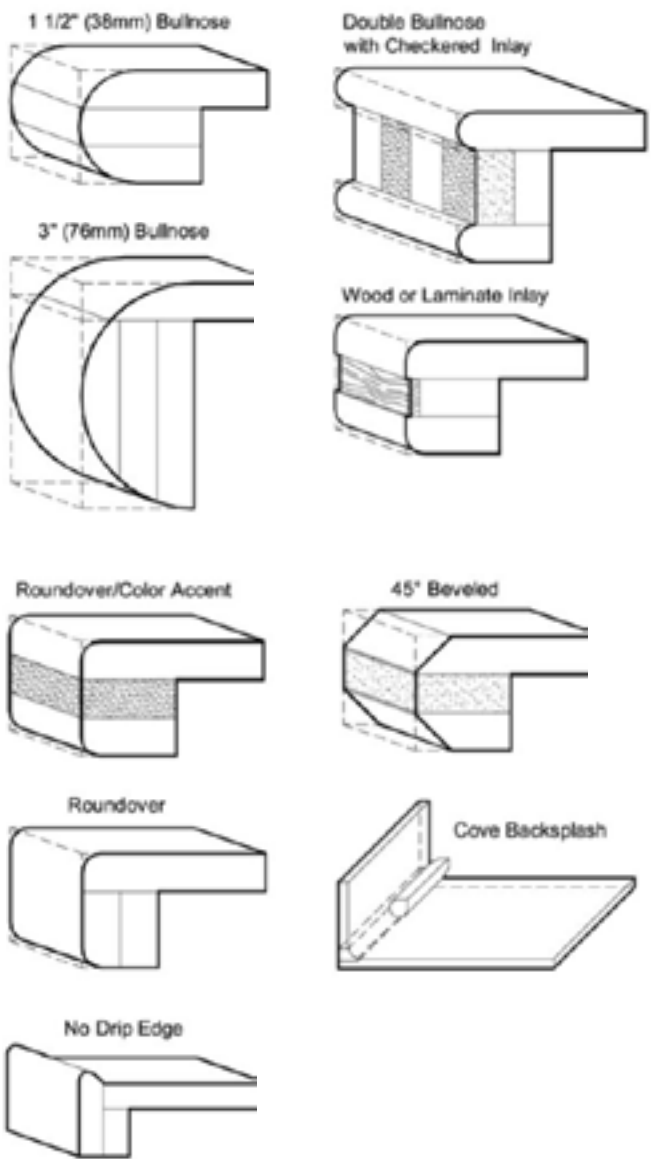
By using a high quality router and reasonable feed speed, detailed cuts can be easily achieved. Keep the router steady and make a smooth pass without stressing the motor as this can cause chatter and more labor time. Heavier cuts, such as those for a 3" (76 mm) bull nose can be produced by laminating several pieces together and machining in two steps.

For Best Results...

Use a 1/2" (12.7 mm) shank profile cutter. Sharp cutters require less sanding.



COMMON CONSTRUCTION METHODS FOR POPULAR
EDGE PROFILES



2.10 Sanding and Polishing

FINISHING

The final finish of your application must be specified and understood by the end user. Most customers choose the Satin or Polished finish.

All AVONITE™ sheets come from the factory with minor linear sanding lines. These lines are 60 micron or a 280 grit finish on the face. To obtain any of the possible finishes these sanding lines must be removed. This is accomplished by starting the sanding process with 60 micron.

Using a 6" (152 mm) or 8" (203 mm) random orbital sander will reduce your sanding time by HALF over conventional vibrating sanders and will achieve a more uniform finish. Whenever possible, use a sander with a vacuum attached (especially if the tops are polished) to minimize grinding dust back into the top.

Sanding Process

1. Move the sander in a back and forth direction.
2. Overlap each pass by 50%.
3. Sand at a slow and even pace, approximately 1" (25.4 mm) per second.
4. Keep micron paper clean from sanding dust. This is easily done by putting the sanding pad on a piece of carpet while running and hold it down for a few seconds (check paper frequently).

*Each sheet of micron paper will sand 10 sq. ft (about 1 sq. M) of AVONITE™ material.



Sanding Progression Table - Light Colors

Matte			Satin			Polished		
Micron (Dry)	Grain P (Dry)	Trizact™ (Wet)	Micron (Dry)	Grain P (Dry)	Trizact™ (Damp)	Micron (Dry)	Grain P (Dry)	Trizact™ (Wet)
100*	P150*	100 (Dry)*	100*	P150*	100 (Dry)*	100*	P150*	100 (Dry)*
60	P240	268XA A35 (Green) (Damp)	60	P240	268XA A35 (Green) (Damp)	60	P240	268XA A35 (Green) (Damp)
Scotch-brite™ 7447 (Maroon)			30	P400	268XA A10 (Blue) (Damp)	30	P400	268XA A10 (Blue) (Damp)
			Scotch-brite™ 7448 (Grey)			Brown Sattex		268XA A5 (Orange) (Damp)
						Blue Sattex		268XA A5 (Orange) (Damp)
						Finesse-it Finishing Material		568XA CeO (White) (Damp)

Sanding Progression Table - Dark Colors

Matte			Satin			Polished		
Micron (Dry)	Grain P (Dry)	Trizact™ (Wet)	Micron (Dry)	Grain P (Dry)	Trizact™ (Damp)	Micron (Dry)	Grain P (Dry)	Trizact™ (Wet)
100*	P150*	100 (Dry)*	100*	P100*	100 (Dry)*	100*	P150*	100 (Dry)*
60	P240	268XA A35 (Green) (Damp)	60	P240	268XA A35 (Green) (Damp)	60	P240	268XA A35 (Green) (Damp)
Scotch-brite™ 7447 (Maroon)			30	P400	268XA A10 (Blue) (Damp)	30	P400	268XA A10 (Blue) (Damp)
			Scotch-brite™ 7448 (Grey)			Brown Sattex		268XA A5 (Orange) (Damp)
						Blue Sattex		268XA A5 (Orange) (Damp)
						Finesse-it Finishing Material		568XA CeO (White) (Damp)

* Initial grit only required if scratches need to be removed

Use only one class of abrasive media for the entire finishing process. Do not mix media as the abrasives at each step are not always equivalent.

Matte Finish

After removing the linear sanding lines with 60 micron paper, place a Scotch-Brite® pad, (#7447 Red) under the sanding pad to even out the finish. The matte finish is easily maintained and is usually the most suitable for lighter colors. Make sure the customer understands the required maintenance for the finish they have chosen. Most solid surface samples are Satin finished and likely will be what the customer is expecting.

Satin Finish

Sand with 60 micron paper, repeat sanding process with 30 micron paper. Place Scotch-Brite® pad (#7448 light gray) under sanding pad. Sand with Scotch-Brite® #7448 and soapy water. Homeowners may maintain this finish using a white Scotch-Brite® and Soft-Scrub®.

Polished Finish

After sanding with 60 micron paper, repeat the sanding process with 30 micron paper. Whenever possible, use a vacuum attached to the sander to minimize sanding dust back into the surface top. Dark colors with a high gloss finish show wear very quickly. A dark color is not recommended for heavy use areas.

Finishing Guidelines

You should become familiar with the different colors and options you present to your clients. Most customers are expecting the gloss level they have on the sample they are choosing from. Download and print our Finishing Guidelines document. Go over these guidelines with your customers to help manage expectations.



The buffer should be variable speed between 1000-3000 RPM. Best results are achieved at lower speeds.



2.11 Finishing Guidelines

AVONITE™ COLOR AND FINISHING GUIDELINES

AVONITE™ offers a wide range of unique products that are used in many different applications. Some of these products may not be suitable for high traffic applications due to their unique characteristics, dark hues, and saturated color.

CHOOSING THE RIGHT FINISH

The design flexibility of solid surface offers us limitless options for style. With so many choices it makes it difficult to choose sometimes. One of the most confusing issues is the subject of finishing. Most manufacturers present 3 options commonly referred to as matte, satin, or gloss and ask the end user or designer to choose one of these. Quite often the contractor’s quote assumes the least expensive matte finish as the default unless otherwise noted.

If the finish options are not discussed, most of the time customers are expecting to get the finish on the sample they are looking at when they choose the color. Managing the customer’s expectations for finishing choices and overall performance is critical.

Choosing the right finish requires consideration of the color, texture, and application. Where it may be easier for a manufacturer or contractor to advise against a polished finish in a kitchen because of the concern for maintenance, it should not be the polished surface that causes concern but rather the color choice. Here is an example. Let’s compare two color options both from the AVONITE™ 100% acrylic solid surface product line for an average kitchen countertop: Casablanca (Left) and Storm (Right).



The light and neutral Casablanca will not easily show signs of everyday wear but Storm may show early signs of wear simply because of its color. This scenario would be true regardless of the finish chosen. A polished Casablanca countertop can go years without showing any wear.

Finishing Dark Colors

This is a good time to discuss what finishes are appropriate for dark and rich colors like Dark Roast. There are some of these colors in everyone’s sample box. When it comes to extra dark colors like these, the “matte” finish is a very poor choice. Rough matte finishes on dark colors leave surfaces looking chalky and they easily smudge with fingerprints. All dark colors should have a minimum “satin” finish. Manufacturers put a minimum satin finish on the samples in their sample boxes because all of the colors look much better and cleaner.

Maintenance

Now let’s consider the question of long term maintenance for different colors and finishes. Regardless of which finish was originally chosen, similar finishing steps must be applied to restore the surface to its original finish. There are two steps for a matte, three for a satin, and four steps for a high gloss. Because of the specialty equipment used to achieve a high gloss, end users wanting a polished finish must be prepared to acquire this equipment and technique or contract their installer to refinish their surfaces periodically every 4 or 5 years depending on the application. In most cases, countertops that are used and cleaned everyday develop their own level of “patina”. Matte surfaces become more reflective with use. It is generally agreed that the satin finish offers end users the best look with the minimum required maintenance. However maintaining a polished surface is only one more step than a satin finish. Overall hardness and scratch resistance of all solid surfaces are relatively the same. Anything that is harder than the surface has the potential to scratch. Items such as ceramic jars or stoneware for example should have felt protectors on the bottom to prevent scratching.

Texture

Texture refers to how much pattern you see in the color. Saturated colors with little texture will show wear easier than full textured colors. Compare these two colors illustrated below. These are two very popular black colors from the AVONITE™. Notice the texture or pattern of the Black Coral (Left) versus very little pattern in the Star Shine (right). The extra texture in Black Coral will not show wear as easily as Star Shine or other saturated colors.



2.12 Designing and Fabricating with “Movement Colors”

The Movement Collection has characteristics that require some specific fabrication considerations. The random directional veining ranges from subtle to bold, so every sheet will be unique. The edge of the sheet can have a different appearance than the top of the sheet, and therefore should have consideration given to the desired edge effect. As a result of the random patterns in the sheets, sheet yields may be lower than standard patterns, therefore it is important to consider these characteristics when quoting jobs and setting the expectations of the customers. Larger samples and full sheet images help customers to visualize the final results.



Stacked Edges

Stacking edges reveals several layers and color differences through the thickness of the sheet. The variations are apparent and may cause objection from customers.



Drop Edge

The drop edge reveals one edge of the sheet thickness contrasted with the top surface. In some cases this contrast in pattern can be minimized with edge profiles such as an ogee or bevel.



V-Groove

Creating edges with a v-groove method produces an edge build that simply folds the top pattern over the side. The continuation of the top side pattern eliminates any pattern changes and is most preferred by customers.

Not all fabrication methods are suitable; those that work with subtle patterns may not work with bolder patterns. It is important to understand these characteristics and be able to set customer expectations.

3. Installation

3.1 Installation

It is very important that the personnel installing the AVONITE™ material be properly trained and follow the recommended procedures. Improper installation may lead to problems in the future. Failure to follow the recommended procedures will void the warranty.

Substrates

Choosing the appropriate substrate for different applications should be considered. A solid substrate cannot be used when heat sources are present, as in kitchen applications. The following methods demonstrate alternatives to solid substrates.

Runner Method

The runner method uses 1” x 4” (25.4 mm x 101 mm) supports that run parallel to the length of the top as shown in **Figure A**. They are at the front, center, and rear edge of the counter top, adhered with dabs of silicone every 18”-24” (45.7 cm - 61 cm). The cabinets must have cross supports for the runners every 18” - 24” (45.7 cm - 61 cm).

Clearances

Be sure to leave 1/16” (1.5 mm) - 1/8” (3 mm) between the edge of the substrate and the back of the build up. Leave a minimum 1/16” (1.5 mm) between the counter top and the back wall. For wall to wall installations, allow clearance on each end for expansion. Leave a 1/8” (3 mm) gap for Class I products and 3/16” (4.7 mm) for Class III products. Allow as much clearance as possible at cook tops and drop-in sinks.

Adhering Material to Substrates

Dabs of silicone are placed in the front, center, and rear every 18” - 24” (45.7 cm -61 cm) for all substrates. A dab of silicone should be the size of your thumb nail.



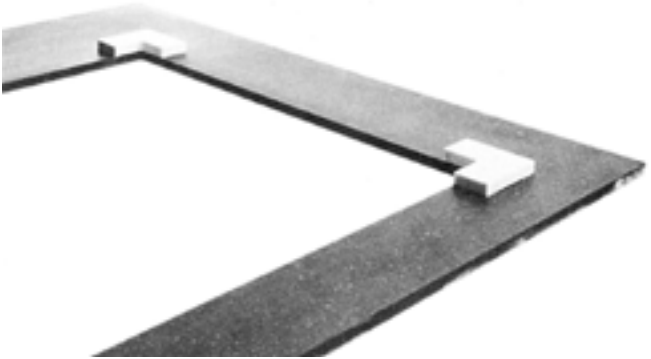
Figure A

Securing Top to Cabinets

We recommend attaching the substrate to the AVONITE™ top first and then fastening it to the cabinets. This way if you ever need to remove the top, you may do so without destroying it. Set tops on pre-leveled cabinets. Put screws from all corner blocks on cabinets into the substrate. Make sure screws do not go all the way through substrate and into the countertop. If screws are allowed to contact the solid surface, they may start a crack at that point. We recommend 100% silicone for bonding to wooden substrates. NEVER USE LIQUID

NAILS™ or other rigid adhesive which does not allow for expansion or contraction of the top.

ALL CUT OUTS SHOULD BE MADE WITH A TEMPLATE AND A ROUTER AND HAVE A MINIMUM 1/4" (6 mm) INSIDE CORNER RADIUS.



Corners of cook top cut outs must be reinforced by bonding a 3" (76 mm) x 3" (76 mm) or larger piece of AVONITE™ material to the underside. Do not position a joint or any glue lines across any type of cut out or hob. Always leave a 1/8 in. or 3 mm space between the underneath of an appliance and the edge of AVONITE™.

Using the runner method substrate as pictured allows for venting of heat.

COOKTOP / HOB AND BACKSPLASH CLEARANCE

Due to excessive heat generated from cook tops and pans being heated, minimum clearances are required by AVONITE™ material. Standard 4" (102 mm) tall splashes should have a minimum clearance of 2" (51 mm) between the splash and the cook top flange.

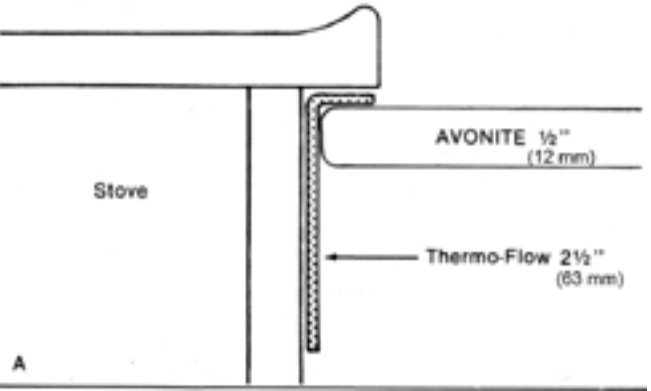
Note to homeowner:

Full height splashes within 2-1/2" (63.5 mm) from the cook top flange will not be covered under AVONITE™ 15-Year Warranty. Extensive use of large oversized pans that overhang the counter should be avoided. Commercial type cook tops for residential use need to be supported inside cabinet base, so that cook top is not supported by countertop alone.

THERMO-FLOW TAPE

The use of thermo-flow tape is REQUIRED for prevention of damage in cook top cut outs and slide-in ranges due to excessive heat. The use of any other tape voids the AVONITE™ 15-Year Warranty.

Thermo-flow is a 2-1/2" (63.5 mm) wide heat conductive aluminum tape with a glass backing that adds insulating properties. Install one layer of Thermo-Flow around the cut out as shown below.



COMMERCIAL FOOD SERVICE HOT WELL LIMITATIONS

Trinseo does not warrant the use of Class III products for use in commercial hot well unit applications. This restriction will continue in effect until appropriate design criteria have been developed. We will keep you advised of any future developments in this area. Guidelines for installation of commercial hot wells are given on page 25.

MAKING FIELD SEAMS

To insure that drop edges are properly aligned after seaming, stop routing the profile a couple of inches from the seam on either side. After removing the flash line of the seam you may then route the profile across the seam.



INSTALLATION CHECKLIST

- 1. Before Seaming
 - a. Good dry fit (no gaps)
 - b. Seam block in place
 - c. Proper clearances
 - d. Clean with denatured alcohol
 - e. Prepared for clamping
- 2. Support all seams
- 3. Substrate secured to cabinets
- 4. Level cabinets 3/32" in 48"(2.38 mm in 120 cm)
- 5. Cutouts—1/4" (6.3 mm) radius
- 6. Thermo-Flow tape on cook top cutout
- 7. Inside corner radius
- 8. Silicone

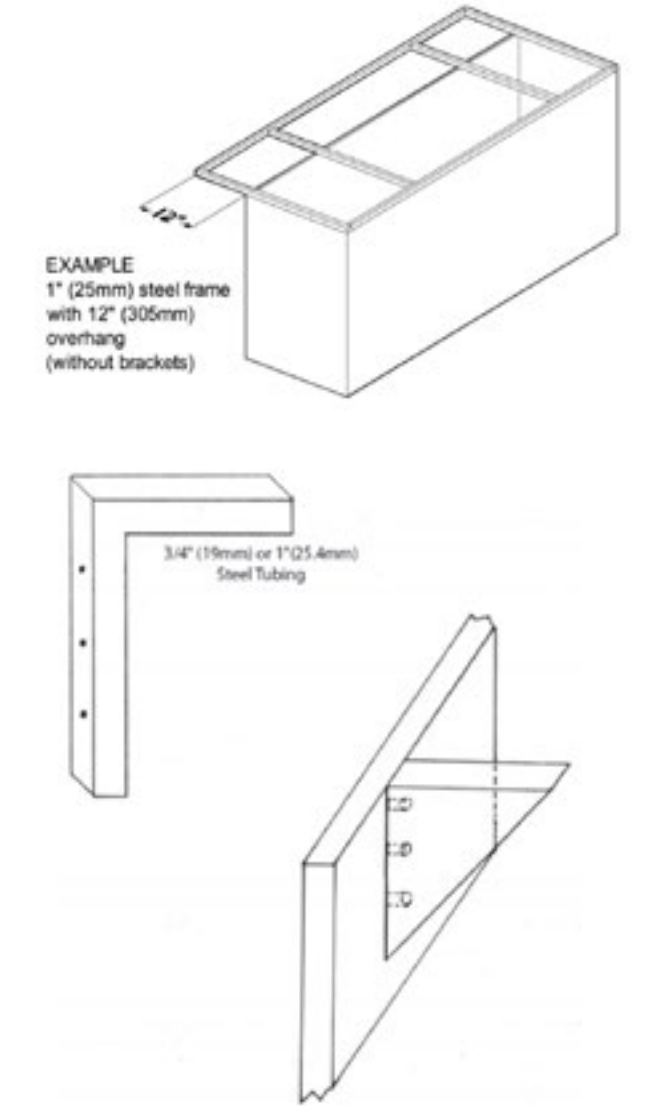
OVERHANGS

When installing overhanging countertops, support is required for 1/2" (12.7 mm) thick overhangs extending more than 6" (152 mm). Support is provided by plywood substrate or brackets which are equilateral right triangles (anchor leg is equal in length to the support leg). Backers can be MDF. Brackets, when required, are placed no more than 24" (60.9 cm) apart and should come to

within 5" (127 mm) of the countertop edge. Refer to the dimensions below for the type of support to use.

OVERHANG SUPPORTS

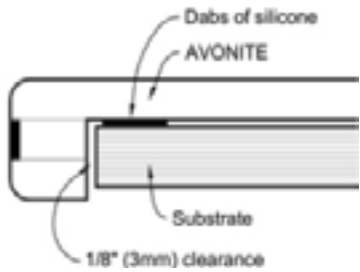
Up to 6" (15.2 cm) require no additional support. 6" - 12" (15.2 cm - 30 cm) require 3/4" (19 mm) plywood substrate or brackets 12" - 18" (30 cm - 45.7 cm) require brackets or metal frame. Overhangs more than 18" (45.7 cm) should be engineered to no more than 1/8" (3 mm) deflection.



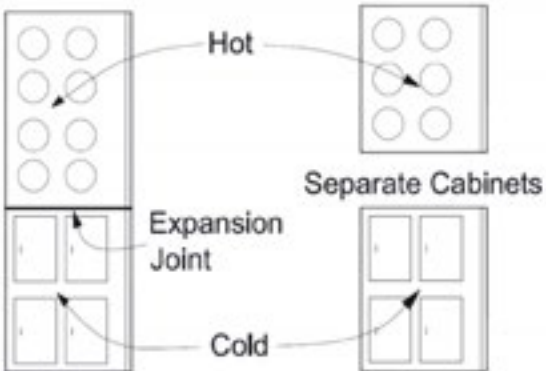
COMMERCIAL FOOD SERVICE AREAS

The following features must be included in a commercial food service installation in order to be covered by AVONITE™ 15-Year Limited Warranty. Color must be selected from among AVONITE™ Class I fire rated products.

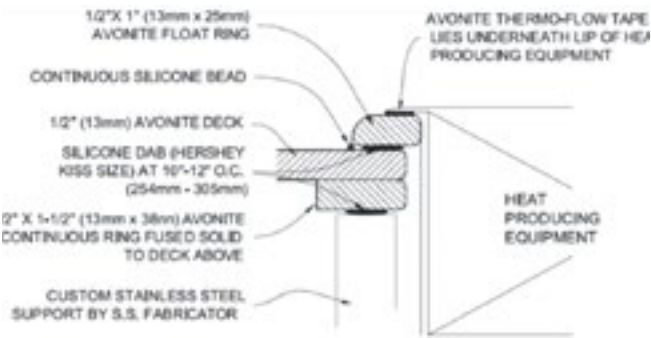
- 1. Cabinet must be even and level with no protrusions to cause cracking.
- 2. Support tops every 18" (45.7 cm). Cantilevers over 6" (15.2 cm) require structural support. Provide support within 3" (7.6 cm) of all cut outs.
- 3. Hot and cold units must be supported from below and not rest on the AVONITE™ top.
- 4. Attach AVONITE™ to support frame with dabs of silicone every 18"- 24" (45.7 - 61 cm) ; do not use a continuous bead.



- 5. Separate tops containing hot sections from those with cold sections. A soft (silicone) seam may be used.

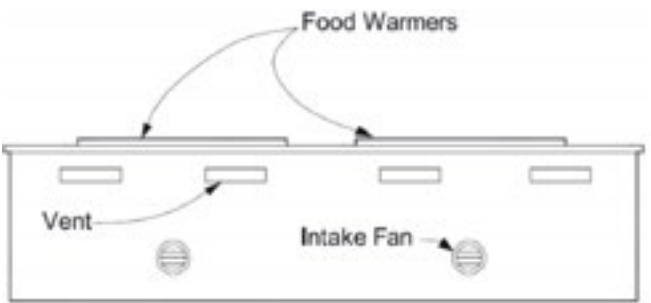


- 6. Make cut outs with router and template and allow a 1/2" (12.7 mm) radius in the corners. Cut and sand a 1/8" (3 mm) round over on top and bottom edge of cut out.
- 7. Reinforce corners of rectangular cut outs with 6" x 6" (15.2 x 15.2 cm) blocks of AVONITE™. Circular cut outs must have a continuous ring of AVONITE™ 2" (5 cm) wide as reinforcement.
- 8. Use a layer of Thermo-Flow tape to line the perimeter of all hot and cold cut outs.



- 9. Hot well units must be covered with a layer of Flex-Sulation blended PVC foam sheeting. The foam may be attached to the hot well with 3M® double sided aircraft tape, or duct tape. McMaster Carr Supply 562-692-5911 Part # 9349K1

- 10. Cabinets are to be ventilated by installing a fan near the bottom to pull cool air into the cabinet and by providing vent slots near the upper edge of the cabinet to expel the hot air. Temperatures in the cabinet must not exceed 170 °F (78 °C).



- 11. Sneeze guards must be fastened to the cabinets or the floor, not directly to the AVONITE™ sheet. Holes in the AVONITE™ sheet to accommodate the sneeze guard supports must be cut 1/4" (6 mm) oversize in diameter to allow for expansion and contraction.

- 12. Deck seams must be reinforced with a 4" (10 cm) seam block. Keep seams 3" (7.6 cm) or more away from cutouts.

3.2 Wet Wall Installation

WET WALL PANELS AND ACCESSORIES

Please read the instructions carefully prior to installing the wall system. This document will give you basic instructions for the installation of wet wall panels in a step-by-step sequence that will work in most types of installations. If you have an installation that is not covered, please call AVONITE™ Technical Services with any questions +1 (800) 428-6648.

Warning - Please inspect all items and report any damage. Store panels in a flat area to avoid warping until the time of installation. Allow panels to acclimate to room temperature before installing. Do not use Liquid Nails or other rigid construction adhesive.

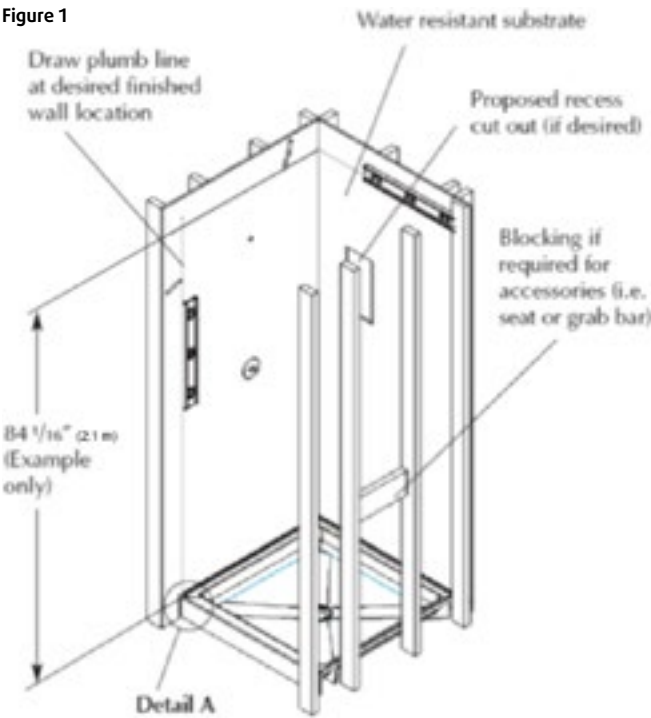
Recommended Tools and Supplies for Installation

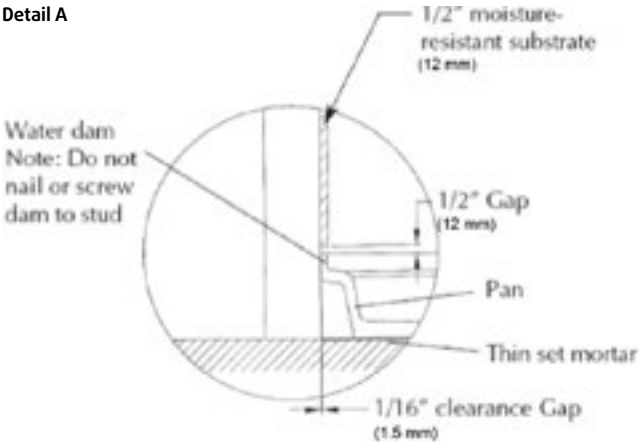
- Circular Saw with Carbide Tip Blade (24-40 tooth)
- Random Orbital Sander
- Belt Sander w/80 Grit Belt
- 150-320 Grit Sandpaper & Scotch Brite Pad
- Installation Kit or Hot Melt Gun & Glue Sticks
- Drill, Hole Saw, 1/2" (12.7 mm) Diameter Bit (Sharp)
- Caulk Gun & 100% Silicone
- Paintable Latex Caulk
- Level
- Square
- Router with Carbide Bit
- Compass or Scribe Tool
- Denatured Alcohol
- Clean Shop Rags

- 1" x 4" x 8" (25 mm x 10 cm x 203 mm) Wood for Bracing (4 pcs.)

PREPARING THE SITE

- Prepare the area with moisture resistant dry wall or tile backer board. Never install directly on any masonry wall or construction that is, or may become, damp.
- When installing over ceramic tile, check for loose tiles. If you find any, correct the problem. Make sure that the area to be covered is uniform in support. If not, build up the areas without tile. Remove the bottom row of tile and cut a ventilation gap in the substrate.
- On every installation, make sure that there is a 1/2" - 1" (12.7 mm - 25.4 mm) (Detail A) clearance between the top of the shower base or tub deck and the bottom of the moisture resistant substrate. This will allow for ventilation and keep water leaks from wicking up the substrate. (Figure 1)





PREPARATION FOR ACCESSORIES

Recessed Accessories

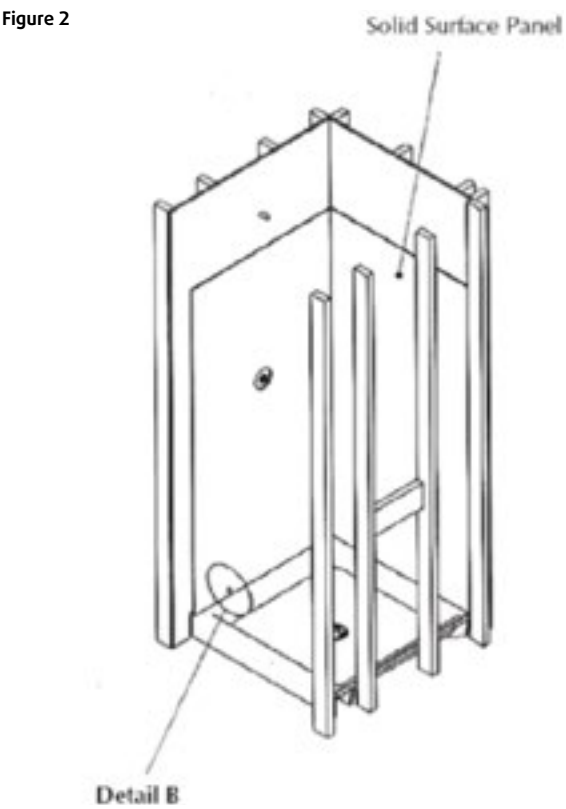
Make sure the accessories will fit near, but not in, a stud and closer to the center of the sheet. Make sure no electrical wiring or plumbing is present before cutting out for the accessories. Make the cutout in the substrate to receive the accessory.

Surface Mounted Accessories

If a surface mounted accessory, such as a grab bar, is going to be installed, make sure 2" x 6" (50.8 mm x 152.4 mm) wood blocking is installed behind the substrate where the surface mounted accessory will be located. This will insure that there is solid backing for any screws that need to be used in the installation. (For blocking requirements see the architectural drawing).

MEASURING FOR INSTALLATION

1. Determine your desired wall panel height. Allow for a 1/16" (1.5 mm) gap between the solid surface panel and shower/tub base pan for a better silicone seal (Detail B).



2. Solid surface panels should be installed in the following order:

- a. back wall, with a 1/8" (3 mm) gap on each side for expansion,
- b. side wall without plumbing,
- c. and then the plumbing wall.

For full height wall applications, a 1/8" (3 mm) gap is required at the top side of the panels. Never hard seam inside corners on the back wall, this should be 100 % silicone only.

3. You may need to draw level and plumb lines on the wall to determine whether your shower bases or walls are out of square. Using the reference line and measuring from the lowest point on base or widest point on the wall, determine how your panels will need to be cut. Transfer this data to the panels.

4. Check your measurements and cut the panels with a circular saw or router. You may make final adjustments to your cuts with a belt sander. Window trim and shelving cutouts should NOT be hard seamed.

MEASURING AND MAKING CUTOUTS

1. All inside corners of cutouts should have a minimum 1/4" (6 mm) radius. Do not cut sharp inside corners.
2. Locate the location of the plumbing holes. Transfer the data to the panels. Cut the holes a minimum 1/4" (6 mm) larger than the pipe diameters. The cover plates for the plumbing fixtures may allow for more variance. Consult the plumbing fixture installation instructions for templates and recommended hole cut out sizes. Check your measurements and using a router or standard bimetal hole saw, cut out the plumbing holes.
3. Once the panels are cut to size, locate the caddy cutouts, marking the cut out locations. Cut the caddies out after the panels have been installed.

MOUNTING THE PANELS

1. **Shim:** Place shims 1/16" (1.5 mm) thick) at the base of where the sheets will rest. This allows for better flow of the silicone. Laminate chips make great shims. (Shims may not be necessary if the slope of the shower base creates a natural adhesion gap.)
2. **Trial Fit & Scribe the Panels As Needed:** Place the panel on the shims where it will be installed and check the fit. If necessary, scribe the panel for a better fit. Trim the scribe with a belt sander.
3. **Clean the Sheets and Installation Area:** With denatured alcohol and a clean rag, clean the back of the sheets and the substrate, along with any other area that will be in contact with the silicone.
4. **If using an installation kit,** prior to applying the 100% clear silicone adhesive, apply the butyl tape about 2" (50.8 mm) from the edge, around the perimeter of the panel.
5. **Apply the 100% clear silicone adhesive,** about 1" (25.4 mm) from the edge, around the perimeter

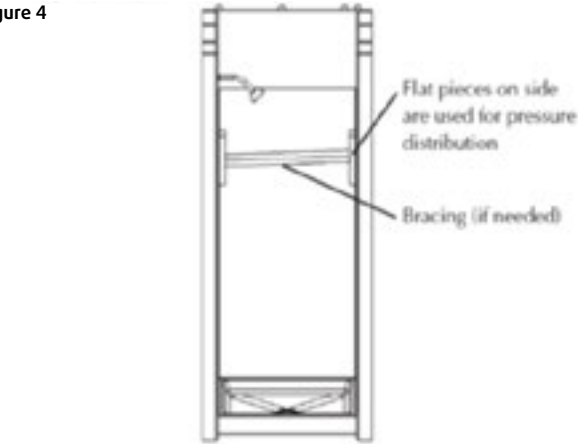
of the panel with 1" (25.4 mm) spacing for air flow to cure the silicone. Place quarter sized dots 100% clear of silicone adhesive every 8" - 10" (20.3 cm - 25.4 cm) apart over the surface of the panel (see figure 3). If accessories are being used, on the wall, place a bead of 100 % silicone (this can be color match silicone) around the cut-out location.



6. **Place the panel on the 1/16" (1.5 mm) shims,** line up any holes, and firmly press the panel in place with 1" (25.4 mm) brakes to allow air flow into the interior dabs of silicone.

7. **If using a hot melt glue gun,** apply the silicone as stated in steps 4 & 5, apply hot melt along the back edge of the panel where it will be attached to the substrate and press the panel firmly into place. The hot melt will hold the panel until the silicone sets up.

8. **If you find the panel pulling from the wall,** bracing may be necessary. Use 1" x 4" (25 mm x 100 mm) boards, or other dimensional lumber, and brace the panels where needed as illustrated.



9. **Allow the silicone to cure.** Make all remaining cut outs. Silicone between the panel and the substrate along the cut out edge and install the accessory.

10. **Once the panel is secure,** install the optional components.

11. **Install any surface mounted items,** such as grab bars, shower seats, etc, make sure that the screw hole drilled into the panel is 1/16" (1.5 mm) larger than the screw so that the accessory is held in place by the wood blocking and not the panel. If the accessory is to be ADA compliant, please refer to the ADA guidelines for the proper heights and locations. Confirm the light with the architect.

Figure 5



INSTALLING OPTIONAL TRIM

- Trim should be installed using silicone adhesive. Hot melt glue should be used to tack the trim in place while silicone cures. Do not use Liquid Nails or Construction Adhesive. Clean all joints with denatured alcohol before applying silicone.
- Caulk all inside joints with the color matched silicone.
- Caulk outside joints with paintable caulk where wall surfaces are painted, or silicone if wall surfaces are unpainted.
- Clean up silicone with denatured alcohol while silicone is still wet.

SURFACE MOUNTED SHELF ACCESSORY

These instructions apply to the shelf accessories that are designed to rest flush against the corner of two wall panels and not recessed within a wall panel.

1. For ease of installation, clean the mounting area of the panels with denatured alcohol.
2. Use the level and mark on each panel where the shelf unit should be placed. Hot melt or tape two indexing blocks (small pieces of wood or solid surface) where the shelf unit will be mounted, using the marks from above. These blocks will ensure that the mounting is level and will hold the unit in place until the silicone adhesive dries.
3. Apply silicone to the sides of the accessory that will be in contact with the wall panels. Leave several spots between the silicone on the accessory to apply hot glue or tape. Do not use Liquid Nails or Construction Adhesive.
4. Apply small amounts of hot melt or tape to the accessory in several places and immediately press the accessory into the wall panels, making sure that it is straight and flush against the wall panels and index blocks.
5. Hold the accessory in place for 30 seconds or until the hot melt has cured. The holt melt should hold the accessory in place until the silicone cures. Remove any excess silicone around the shelf accessory before it dries.
6. Once the accessory is securely in place, the index blocks can be removed if desired. Apply silicone to all edges of the accessory that contact the wall panels. Let silicone cure for 24 hours in the dry environment before resting objects on the shelf accessory.

Note: Never try to screw into the wall panel.

RECESSED SHELF ACCESSORY

These instructions apply to the shelf accessories that are designed to be recessed within a wall panel.

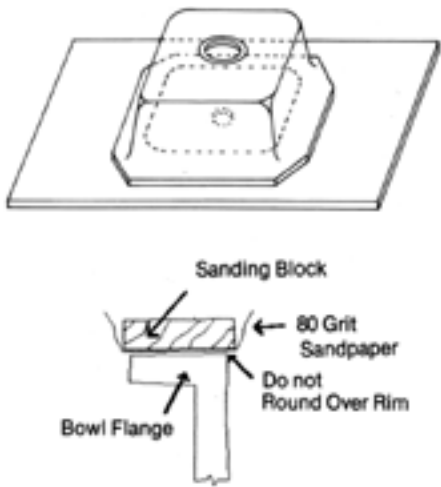
1. Make sure no electrical wiring or plumbing is present before cutting out the location for the accessory.
2. Measure, level, and mark the panel for the location of the accessory. Place the accessory against the wall panel and trace the outline of the back of the accessory unit against the wall panel.
3. Using a router with carbide bit, make the cutout for the for the accessory. Template can be made to guide the router for precision cuts.
4. Dry fit the accessory to ensure a proper fit. The shelf accessory should fit tightly within the opening. If the accessory does not fit, repeat Step 4 until the proper fit is achieved.
5. Clean the mounting area of the panels and shelf accessory with denatured alcohol.
6. Apply silicone to the sides of the accessory that will be in contact with the shower panels. Do not use Liquid Nails or Construction Adhesive.
7. Press the accessory into the opening, making sure that it is flush against the wall panel. Clean any excess silicone from the wall panel or shelf accessory before the silicone dries.
8. Once the accessory is securely in place, apply silicone to all edges of the accessory that contact the wall panel. Let silicone cure for 24 hours in dry environment before resting objects on the shelf accessory.

3.3 Sinks, Bases, Bowls

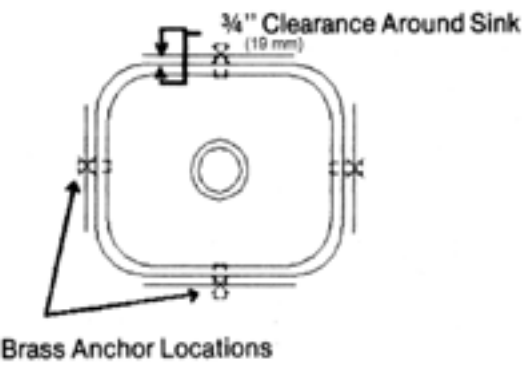
GENERAL SINK FUSED MOUNTING INSTRUCTIONS

Positioning and Preparation

Sinks are recommended for bonding to 1/2" (12 mm) AVONITE™ sheet thickness. Turn the sheet back-side up on a well supported surface. Position the bowl on the sheet.

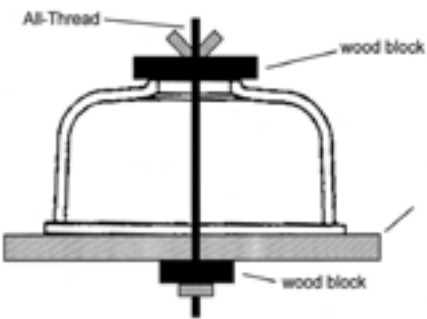


Do not nick or scuff the rim of the bowl. With a nail or screwdriver, etc., scratch a line on the sheet around the perimeter of the bowl. Drill a 1 - 1/4" (31.4 mm) pilot hole, with a hole saw, in the sheet in line with the drain of the bowl. With a flat sanding block and #80 grit sandpaper, sand the underside of the sheet where the bowl is to be bonded. This removes factory sanding lines or scuff marks. With a flat sanding block, scuff sand with #80 grit sandpaper the top flange of the bowl. Do not round over or nick the rim. Mark the location of 4 locating blocks as shown below. These blocks can be scrap pieces of material 1" x 1-1/2" x 1/2" (25 mm x 38 mm x 12.7 mm) thick. Fasten the blocks to the back of the sheet using Locktite 495, or equivalent. This will keep the sink from sliding during bonding.



Bonding

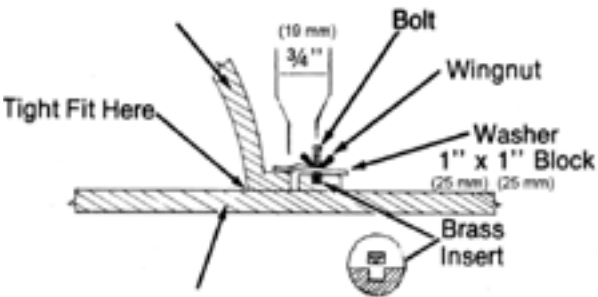
Remove the bowl and clean the bonding area and the bowl with denatured alcohol and let it dry. Apply the adhesive to the sheet fully coating the flange area. Always use adhesive to match the bowl or sink. Use all-thread, two blocks of plywood and a wing nut to clamp the bowl to the sheet as shown below. Tighten the clamp until the adhesive flashes out evenly and allow the adhesive to harden. Refer to www.BigDogAdhesives.com for adhesive color matches.



Mounting Brackets

Mounting brackets may be used to under mount sinks other than AVONITE™ sinks. Drill a 1/4 inch (6 mm) diameter hole by 1/2 inch (12 mm) deep, 3/4 inch (19 mm) from the sink into the locating blocks as shown in Figure 5. Remove any dust and tap in the brass anchors slotted end first. Set with Locktite. Mount hardware by first threading the wing nut well up on the screw near the head. With washer and slotted clip in place, tighten screw securely to lock the brass anchor (shown below). Bond the bowl to the sheet using silicone if it is a non-solid surface bowl. Swing clips on to the bowl lip and evenly tighten the wing nuts until the bracket begins to deflect. Recheck to be sure the bowl is in the proper position.

Allow the compound to harden. After adhesive cures, do not remove under mount brackets.



Shaping The Edge

Turn the top over and use the specially designed bowl router bits to shape either a flush or bull nose bowl edge trim. Cut the sheet material from the center of the bowl area with the special straight router bit with an oversized nylon bearing. Start from the pilot hole and rout clockwise around the bowl. Hold the cutout steady as it separates from the top to avoid damage to the edge (Figure 6). A bull nose trim on the edge (Figure 8 and 10) of the sheet creates a shadow which can help hide seams. The cutter slightly shaves the bowl edge and removes all the seam compound. A round over bit on the edge (Figure 7 and 9) of the sheet will produce a smooth edge. The cutter slightly shaves the bowl edge and removes all the adhesive.

Different sheet thickness and cutter heights can produce various edge profiles.

NOTE: The bowl bits shown have a 2 1/2 inch (64 mm) cutting diameter. Router base adjustments may be needed.

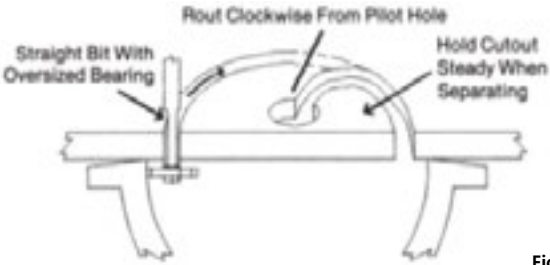


Figure 6

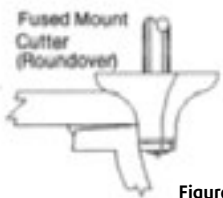
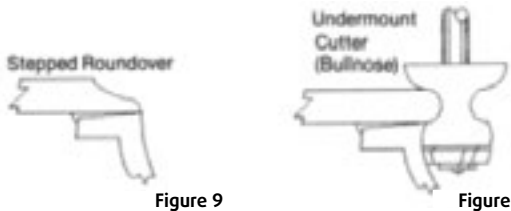


Figure 7



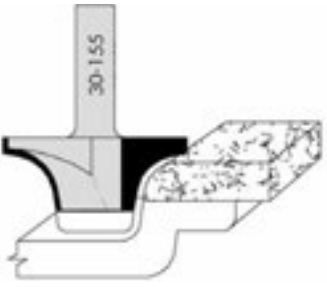
Figure 8



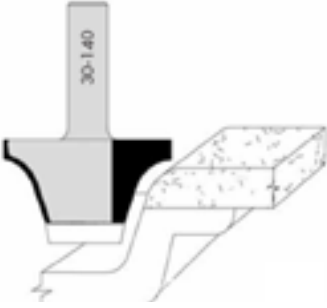
For additional information contact AVONITE™ Technical Services +1 (800) 428-6648.

NOTE: WHEN POURING BOILING WATER INTO THE SINK OR USING AN INSTANT HOT WATER DISPENSER, COLD WATER SHOULD BE RUNNING INTO THE SINK SIMULTANEOUSLY. THIS WILL ELIMINATE ANY POTENTIAL THERMAL SHOCK CRACK. THE USE OF A GARBAGE DISPOSAL LARGER THAN 3/4 HP IS NOT COVERED UNDER AVONITE™ WARRANTY.

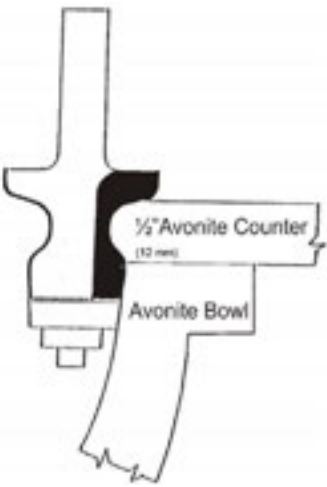
The bowl bit shown above is from Velepec
SUBN-8-12 4VT Velepec
1-800-365-6636



Kitchen Sink Rounding Over Bit—
Velepec 30-155 or CRST10-8-8VTR
1/2 inch (12 mm) Radius for 1/2 inch (12 mm) thick top



Vanity Sink Rounding Over Bit
Velepec 30-157TG or CRST 13-8-8VTR
1/2 inch (12 mm) Radius for 1/2 inch (12 mm) thick top



BULL NOSE BIT TO CUT AVONITE™ UNDERMOUNT LAVATORY BOWLS & KITCHEN SINKS with VEL-VET TOUCH™ Bearing Guide Assembly 1/2 inch (12 mm) Shank Diameter - 2 Flutes

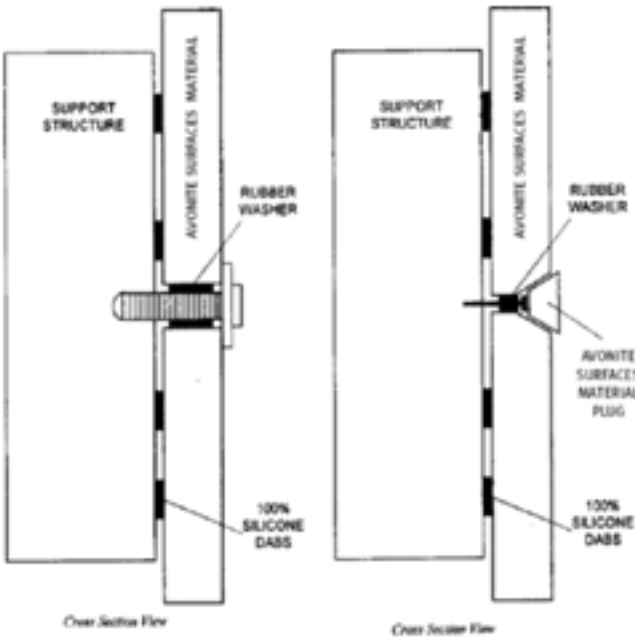
4. Special Applications

4.1 Wall Panels and Signage

INSTALLING SCREWS OR BOLTS IN AVONITE™ PANELS INTERIOR & EXTERIOR APPLICATIONS

Trinseo realizes there are certain applications that need additional vertical support.

Examples: AVONITE™ outdoor signage, elevated wall cladding or ceilings etc., and other similar applications. The proper technique for installing screws or bolts through AVONITE™ sheets should be done according to the diagram below.



Soft seams should be used for exterior applications.

Important facts that you need to remember are:

- 1. Hole should be 1/4" (6 mm) oversize in diameter minimum (for interior applications).
- 2. Hole should be 1/2" (12 mm) oversize in diameter (for exterior applications).
- 3. Rubber grommet/washer needs to be inserted in hole to provide cushion for movement during expansion or contraction.
- 4. Do not over tighten screw or bolt; snug tight only.

Outdoor Applications

Trinseo does not warrant exterior applications. **As with any other solid surface products, dark colors must not be located where they will receive direct sunlight.** The sunlight will cause an extreme temperature increase due to dark colors' heat absorption, accompanied by expansion of the material with potential distortion or cracking. A sign must not be located where it will be periodically sprayed with water as from a sprinkler system. Water spots will leave mineral deposits which will buildup on the surface, eventually making it difficult to restore to the original appearance. Three dimensional structures with hard seams are not suitable for outdoor applications in any color for any solid surface products. Stresses are created when the sun warms part of the structure while another part joined to it remains cool. Such stresses are likely to lead to failure of a seam or failure of the material itself. Amongst the full palette, certain colors have been selected because of their outdoor performances. These colors are UV-resistant, in the limit of 5 units ΔE CIE lab and are covered by a 5-year warranty on the material. Please reference the Façade Product Brochure (SL408315) for additional information regarding exterior applications.

Engraving and Sandblasting

AVONITE™ material can be engraved by conventional carbide engravers and laser engravers. Letters or logos are easily cut out by computer controlled routers. AVONITE™ material can be sandblasted using a monument stencil like anchor Continental #111 or "Buttercut" by 3M. Silicon carbide (80 grit) at 80 psi gives the best results for a sharp edge.



4.2 Thermoforming

These Thermoforming Parameters are basic guidelines for fabricators to thermoform AVONITE™ material. The parameters listed below are recommendations, which are a direct result of actual forming of AVONITE™ material. This testing was conducted by the AVONITE™ Technical Service Department, but values are approximate. We suggest re-testing for varying conditions.

Material Preparation

When preparing material to be formed, it is recommended that material be cut to size. Then, remove all chips or gouges on the edge of the material. Any chip or gouge left on an edge may cause the material to tear during forming.

Product group	Conventional oven			Platen oven		
	Temperature	Time	Minimum Radius	Temperature	Time	Minimum Radius
AVONITE™ surface acrylic 12 mm (1/2")	370 °F (187 °C)	20-25 minutes	6" (152 mm)	302 °F (150 °C)	15 minutes	6" (152 mm)
AVONITE™ surface acrylic 6 mm (1/4")	370 °F (187 °C)	10-15 minutes	3" (76 mm)	302 °F (150 °C)	10-15 minutes	3" (76 mm)

Thermoforming Temperature

Temperatures given here are approximate and represent a starting point to establish the conditions you need for your project. If material is too cool or too hot it may crack or tear while bending.

Oven Options

Below are thermoforming guidelines for conventional and platen style ovens. Every oven is unique and calibrations may be necessary. Be sure the oven used is large enough for the entire piece to be formed.

Mold Design

When forming we recommend that male and female molds be made. The molds need to be designed so they can accommodate clamps to hold them together while material is cooling.

Cool Down

Allow material to cool for one hour, or when the temp reaches 100 °F / 37 °C, to prevent the material from springing back. If material is not allowed to cool adequately, it may spring back as much as 10 % which will make any further fabrication of the application difficult.

Fabrication: Finishing/Seaming

Finishing formed sheet stock is no different from standard finishing. However, it is important that any seaming/joining be done after forming. The heat to which the material is subjected will weaken the seamed areas of the pieces, which may result in seam failures.

4.3 Repairs

Most Common Reasons For Seam Failures

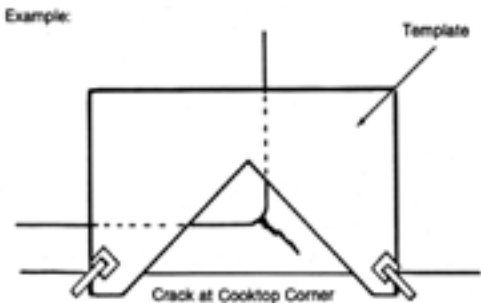
- 1. Excessive heat from belt sanding
- 2. Too much clamping pressure
- 3. Inadequate mixing of catalyst
- 4. Insufficient catalyst from cartridge if voids not purged by dispensing small quantity of Ultra Bond G before installing mixer tube
- 5. No seam block
- 6. Unsupported seams
- 7. Seams near heat source such as dishwasher or cook top
- 8. Seams placed at points of stress such as inside corners

Seam and Damage Repair

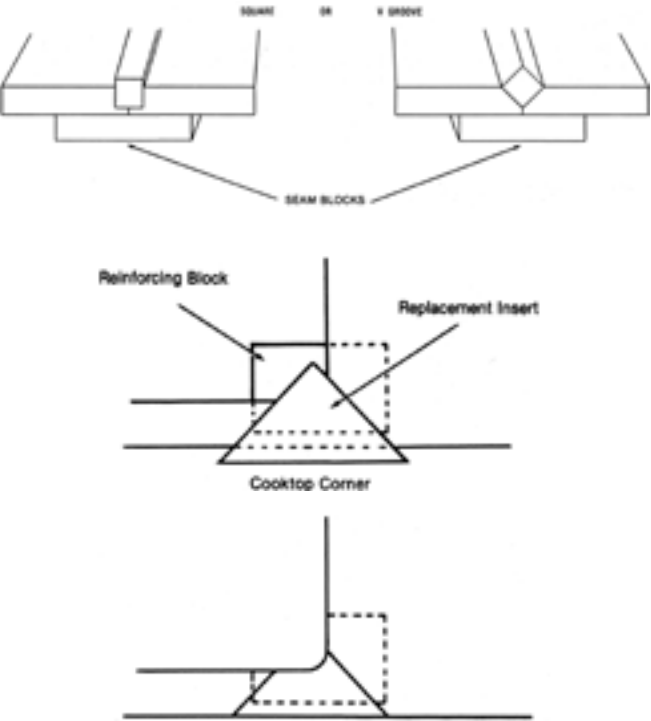
- 1. The damaged area must first be bonded back together. When the opening is wide enough, adhesive can be used. For tight cracks, a very thin cyano acrylate (Super Glue) could be used to fill the void.
- 2. After the glue has dried, route a groove about 1/4" (6 mm) deep— See drawing
- 3. Glue a matching piece of AVONITE™ material into the groove. Always leave a piece of material on the job site for any future damage (perhaps on the floor beneath a bottom drawer or mounted in the sink cabinet).
- 4. Material may then be routed level and sanded back to the original finish.

Pie Shape Repairs

The pie shape repair has proven to be one of the best methods of repairing cracks and damaged areas. The principal is to create a template large enough to encompass the damaged area. Clamp on the template and rout out the area to be replaced.



Cut a matching wedge piece to fit using the same template and router. Check the dry fit and adjust until there are no gaps. Glue the repair piece(s) in place with a reinforcing block underneath whenever possible.



The methods and techniques have improved over the years and today there are several companies that offer repair templates and router bits that make repairs very quick and accurate.

Circle Template Repairs

The circle template repair is recommended for damages from heat producing appliances or hot pots that occur in the center of the counter. Templates By Andreas offers a selection of solid surface repair templates and tools. www.andreascustomdesign.com



Below is the 10 Degree Repair Kit available at www.specialtytools.com



4.4 Partitions and Wainscoting

When choosing solid surface for partitions, allowances for expansion and contraction must be considered. Avoid rigid fasteners that will not move. Rubber or nylon sleeves should be used for bolts going through the partition.

Partitions and Bathroom Doors

AVONITE™ Solid Surface can be used in bathroom door and partition applications following certain guidelines.

- 1. Doors 30" or less in width must have three hinges, never two. If the door is greater 30" (762 mm) wide, there must be four hinges.
- 2. The hardware must be surface mounted.
- 3. Either pin or piano hinges may be used.
- 4. For maximum robustness, we recommend a 4" (10 cm) interior framed door, using 1/2" (6 mm) sheet frame bonded together giving a full 1" (24.4 mm) edge thickness. This should be matched with a full 1" (24.4 mm) thick pilaster.
- 4. There must be a full head rail pilaster system, including pilaster anchor plate.
- 6. We recommend Jacknob hardware for hinges, latches, and pilaster shoes. All Jacknob installation guidance should be followed.

Partition hardware available at:

Bommer Industries Inc.
www.boomer.com
P.O. Box 187
Landrum, SC 29356
800-334-1654
864-457-3301

Jacknob Corp
www.jacknob.com
290 Oser Ave.
Hauppauge, NY 11788
631-231-9400

Decolam
www.decolam.com
2145, rue Lavoisier, suite 101
Quebec (Quebec)
Canada G1N 4B2
418-527-2544

AVONITE™ WAINSCOTING SYSTEM

This system utilizes our wide sheet AVONITE™ Acrylic Solid Surface 6 mm (1/4") product with 12 mm (1/2") base and trim. The AVONITE™ Wainscoting system provides stylish and durable wall protection.

The panels can be Right-Sized to fit the application design.

The panels are adhered directly to dry wall. The wall surfaces and backsides of sheets need to be clean and free of dust.

Panels and trim can be adhered with silicone. Allow 3 mm (1/8") gap between panels and fill with color matched silicone for an inconspicuous soft seam.

DO NOT USE LIQUID NAILS® or CONSTRUCTION ADHESIVE.

5. Support Materials

5.1 Fabrication Support Materials

Trinseo has made many of the necessary fabrication products available through your local distributor. If items listed below are not available from your distributor, please notify AVONITE™ Technical Services, +1 (800) 428-6648.

Solid Surface Adhesives

Trinseo recommends ordering solid surface adhesives through our preferred suppliers:

- Big Dog Adhesives,
435 Harrison Street, Elkhart, IN 46516
www.BigDogAdhesives.com
- Forgeway Ltd
Unit 3, Exeter Logistics Park
Exeter, Devon
EX5 2GB, UK
www.forgeway.com
Contact: Bruce Ellis
bruce.ellis@forgeway.com
+44 1626 367070
+44 7384 240512
- IPS Adhesives (Unika)
New York Way,
New York Industrial Park,
Newcastle upon Tyne,
NE27 0QF, UK
Contact: Gary Holt
gary.holt@ipsadhesives.com
Mobile: +44 7874 867812

Spare Mixing Tubes for 250ml size

SM4162-01

Dispensing Gun

SM4160-00 MANUAL



Spring Clamps - 2" or 3" (50.8 - 75.2 mm)

SM4063-00

SM4063-01

Needed for equal and consistent pressure to avoid open joints. Standard equipment for every fabricator.



5.2 Sanding and Polishing Accessories

Finesse-It Finishing Material

SM4058-00

Second step in polishing system (1 liter).



Superbuff 2 + 2 Pad (White)

SM4045-

Polishing Pad used with Marine Paste compound and Dry-Cut Finishing System Compound.



Superbuff Polishing Pad (Yellow)

SM4046-00

Polishing Pad used with Finishing Material



5.3 Care and Maintenance

The final finish of AVONITE™ material should be specified in one of the following finishes: Matte, Satin, or High Gloss. Each customer must receive AVONITE™ Care & Maintenance information to ensure they understand the proper care and maintenance for the AVONITE™ installation and to register for the 15-Year Limited Warranty, or the new Installed Warranty as appropriate. The AVONITE™ Care & Maintenance information, as well as all warranty information is available online at www.aristechsurfaces.com

MATTE FINISH

Cleaning:

Soap and water will clean most stains. For more stubborn stains use a green Scotch-Brite® pad and an abrasive cleanser.

Scratches:

To remove scratches, start sanding with 240 grit paper and then clean with an abrasive cleanser and a green Scotch-Brite® pad.

Remember to periodically go over the entire matte surface with a dry, green Scotch Brite® pad to return the original finish.

SATIN FINISH

Cleaning:

Soap and water will clean most stains. For Stubborn Stains use a white Scotch-Brite® pad and non-abrasive cleanser such as Soft Scrub™.

Scratches:

To remove scratches, start sanding with 400 grit paper followed by 600 grit paper. Then clean the area with Soft Scrub™ and a white Scotch-Brite® pad.

HIGH GLOSS

Cleaning:

Soap and water will clean most stains. Use a polishing compound like 3M Perfect-It and a soft cloth to remove more stubborn stains.

Scratches:

To remove scratches from a high gloss finish, start sanding with 400 grit paper. The surface must then be machine polished back to it's original finish. If you do not own or have access to this equipment, you should contact you local AVONITE™ fabricator for assistance .

DO'S AND DON'TS QUICK REFERENCE

- Always use a hot pad or trivet under hot pots or heat producing appliances.
- Always use a cutting board.
- Never stand on your counters.
- Avoid harsh chemicals such as drain cleaners and paint removers.
- For high gloss counters, do place felt protectors on the bottom of pottery or other hard objects.
- Do avoid sliding hard objects across these glossy surfaces.
- Always run cold water when pouring boiling water into AVONITE™ sinks.

5.4 Warranty Claims Processing

FILING CLAIMS

To resolve warranty claims, we ask that our Distributor Representatives prepare a Warranty Claim Report. You can help us expedite the processing of warranty claims and achieve improved customer satisfaction by assisting in the following areas:

- 1. Warranty Claim Report Form** - Please fill form out completely so that the information needed to make decisions is readily available for us. This information helps us tremendously in the processing of the claim.
- 2. Quality Inspection Checklist** -We ask your assistance in completing this form in detail, as this helps us to

identify how the defect occurred. Your help in this area in the past has led to the advanced fabrication procedures that now exist in the solid surface industry, further improving our industry’s reputation.

3. Job Layout -Include a detailed diagram of the job, complete with all measurements, including distances to seams and seam locations. This helps us to accurately estimate the cost of fabrication and material, thereby reducing errors and allowing us to validate a repair/ replacement quote.

4. Photos -Take three to four photographs (cell phone photos are acceptable) of the defective area and a photograph of the overall kitchen.

5. Quotation -Submit a written quotation on the repair or replacement of the job. Repair is encouraged over replacement. However, if repair is not possible, a quote of the job replacement is needed.

Warranty claims that are submitted with complete information will be resolved within two weeks of receipt of the claim. Without this information, the processing of a claim will be delayed. We ask for your continued cooperation and thank you for your assistance.

AVONITE™ TECHNICAL SERVICE DEPARTMENT
+1 (800) 428-6648

5.5 Limited Warranty Interior

LIMITED WARRANTY COMMERCIAL AND RESIDENTIAL INTERIOR APPLICATIONS

Trinseo PLC and its affiliated companies, including Aristech Surfaces (collectively “Trinseo”) warrant to the original purchaser of any of its manufactured solid surface products that Trinseo will, at its option and sole discretion, repair or replace the product if such product fails due to a Trinseo manufacturing defect which is discovered

during the first fifteen (15) years after the initial purchase, subject to the limitations set forth in this Limited Warranty.

This Limited Warranty applies only to AVONITE™ products that have been fabricated and installed by an authorized Trinseo fabricator who holds a certification dated four (4) years or newer at time of installation and has installed the product in accordance with the installation instructions provided by Trinseo; which have been used as recommended; and which have failed due to a manufacturing defect and not from damage caused by physical abuse, structural movement, excessive heat, or breakage not due to a defect in the manufacture of the solid surface. This Limited Warranty does not cover defects or damage caused by or resulting from failure of any adhesive, caulk or other accessory, or failure of any caulked or filled joint or seam. This Limited Warranty covers the product for normal interior use, but does not cover the product if it has been moved from its original place of installation. Labor charges incurred during installation are not included under this Limited Warranty. This is a product only Limited Warranty, not a fabrication or installation warranty.

Some variance in color or pattern is natural and can occur. Exact matching of color or color of replacement product is not guaranteed.

This Limited Warranty does not apply to Trinseo’s ADVANC3® solid surface product, which is covered by a separate ten-year limited warranty.

This Limited Warranty applies to AVONITE™ products that are purchased after June 1, 2018, and maintained as described by the AVONITE™ and STUDIO Collection care and maintenance guide. (The care and maintenance guide may be found on the website at www.aristechsurfaces.com.) For coverage under this warranty, you must register online at www.aristechsurfaces.com. The Company will assign a warranty registration number.

This warranty may be transferred or assigned. If transferred or assigned, the subsequent owner must

submit a new warranty registration form to Trinseo within 30 days of the transfer or assignment from the original purchaser or current warranty holder. Once registered, this Limited Warranty will remain in effect for the duration of the original warranty term. Failure to register within 30-days of original purchase, transfer or assignment, will void the warranty.

To obtain service under this warranty, write to the dealer/contractor from whom you purchased the product or alternatively write to Trinseo at the address below providing your name and address, warranty registration number, a description of the product involved, and the nature of the defect or failure. Repair or replacement shall not include any labor charges. A warranty registration number, purchase receipt or other acceptable proof of purchase will be required before any warranty claim can be considered.

Exclusive jurisdiction for legal disputes relating to alleged breach of warranty or representation of any nature must be filed in either the state or federal courts located in Boone County, Kentucky. Kentucky law will govern all disputes or claims arising out of the sale, purchase or use of the solid surface products.

The address to which Warranty claims should be reported is:
Trinseo
Attn. Director of Quality
7350 Empire Drive
Florence, KY 41042

Trinseo may ship (freight collect) to you products repaired or replaced under this Limited Warranty.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, AND TRINSEO EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE (EVEN IF THE PURPOSE IS KNOWN TO TRINSEO), OR FROM COURSE OF DEALING OR TRADE USAGE. THIS LIMITED WARRANTY SETS FORTH THE SOLE REMEDY IN CONNECTION

WITH THE SALE OR USE OF PRODUCTS COVERED BY THIS LIMITED WARRANTY AND IN NO EVENT SHALL TRINSEO BE OTHERWISE LIABLE FOR ANY LOSS, DAMAGE OR INJURY OF ANY NATURE ARISING OUT OF THE SALE OR USE OF THE PRODUCTS DELIVERED HEREUNDER, WHETHER FOR NEGLIGENCE, BREACH OF CONTRACT OR UNDER ANY OTHER LEGAL OR EQUITABLE THEORY. TRINSEO SHALL NOT BE LIABLE FOR ANY INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE SALE OR USE OF SUCH PRODUCTS, INCLUDING BUT NOT LIMITED TO LOST PROFITS, REVENUES, ANTICIPATED SALES, BUSINESS OPPORTUNITIES OR FOR INTERRUPTION OF BUSINESS.. TRINSEO ASSUMES NO LIABILITY FOR IMPROPER FABRICATION, INSTALLATION AND/OR THE USE OF ADHESIVES NOT MANUFACTURED OR DISTRIBUTED BY TRINSEO.

*Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

Note: This Limited Warranty does not include items identified as ‘wear items’ that can be purchased through Trinseo. If you require replacement of a ‘wear item’, please contact Trinseo.

5.6 Limited Warranty Exterior

LIMITED WARRANTY COMMERCIAL AND RESIDENTIAL EXTERIOR APPLICATIONS

Trinseo PLC and its affiliated companies, including Aristech Surfaces (collectively “Trinseo”) warrant for outdoor use to the original owner of AVONITE™ Acrylic Solid Surface for a period of ten years from the date of original purchase from Trinseo that sheets made with colors **8016–White, 8026–Super White, 8090–Snowfall, and 8256–Polaris** will be free from manufacturing defects, the color will not fade or change more than 5 ΔE CIE lab units and gloss loss on a matte finish will not exceed 40%. Trinseo warrants for outdoor use to the original owner of AVONITE™ Acrylic

Solid Surface for a period of five years from the date of original purchase from Trinseo that sheets made with colors **8010–Bone**, **8024–Crème**, and **8106–Ivory** will be free from manufacturing defects, the color will not fade or change more than 5 ΔE CIE lab units and gloss loss on a matte finish will not exceed 40%.

If any sheet of AVONITE™ Acrylic Solid Surface made with the colors listed above shows a change in color of more than 5 ΔE CIE lab units or gloss loss in excess of 40% on a matte finish within five (5) or ten (10) years from the date of original purchase (depending upon the length of the applicable warranty term based upon the color of the product), Trinseo will, at its option and sole discretion, either provide a replacement sheet of AVONITE™ Acrylic Solid Surface or refund the original purchase price of the sheet.

This warranty applies only to AVONITE™ Acrylic Solid Surface sheets formed, maintained and installed in the manner recommended by Trinseo in its facade white book and which have not been moved from their original place of installation. For coverage under this warranty, you must register on line at www.aristechsurgaces.com. The Company will assign a warranty registration number. To obtain service under this warranty, write to the dealer/contractor from whom you purchased the product or alternatively write to Trinseo at the address given below providing your name and address, warranty registration number, a description of the product involved, and the nature of the defect or failure. Refund or replacement shall not include any labor charges. A warranty registration number, purchase receipt or other acceptable proof of purchase will be required before any warranty claim can be considered.

Warranty claims should be sent to:
Trinseo
Attn: Director of Quality
7350 Empire Drive
Florence, KY 41042

Trinseo may ship (freight collect) to you products replaced under this Limited Warranty.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, AND TRINSEO EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE (EVEN IF THE PURPOSE IS KNOWN TO TRINSEO), OR FROM COURSE OF DEALING OR TRADE USAGE. THIS LIMITED WARRANTY SETS FORTH THE INITIAL PURCHASER’S SOLE REMEDY IN CONNECTION WITH THE SALE OR USE OF PRODUCTS COVERED BY THIS LIMITED WARRANTY AND IN NO EVENT SHALL TRINSEO BE OTHERWISE LIABLE FOR ANY LOSS, DAMAGE OR INJURY OF ANY NATURE ARISING OUT OF THE SALE OR USE OF THE PRODUCTS DELIVERED HEREUNDER, WHETHER FOR NEGLIGENCE, BREACH OF CONTRACT OR UNDER ANY OTHER LEGAL OR EQUITABLE THEORY. TRINSEO SHALL NOT BE LIABLE FOR ANY INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE SALE OR USE OF SUCH PRODUCTS, INCLUDING BUT NOT LIMITED TO LOST PROFITS, REVENUES, ANTICIPATED SALES, BUSINESS OPPORTUNITIES OR FOR INTERRUPTION OF BUSINESS. THIS WARRANTY IS NON TRANSFERABLE. TRINSEO ASSUMES NO LIABILITY FOR IMPROPER FABRICATION AND/OR INSTALLATION.

Exclusive jurisdiction for legal disputes relating to alleged breach of warranty or representation of any nature must be filed in either the state or federal courts located in Boone County, Kentucky. Kentucky law will govern all disputes or claims arising out of the sale, purchase or use of the solid surface products.

*Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

Effective June 1, 2018

5.7 Limited Warranty ADVANC3®

ADVANC3® Ten-Year Limited Warranty

Trinseo PLC and its affiliated companies, including Aristech Surfaces (collectively “Trinseo”) warrant to the original purchaser of any of it’s ADVANC3® solid surface products that Trinseo will at its option repair or replace, without charge, such product if it fails due to a manufacturing defect within ten years after the date the ADVANC3® solid surface product was first installed, subject to the limitations set forth below. This Limited Warranty also includes reasonable labor charges needed remove and replace the product covered by this Limited Warranty.

This Limited Warranty applies to any ADVANC3® solid surface product that is installed in residential or commercial applications in accordance with the fabrication guide and instructions, and maintained as specified by Trinseo in publications relating to care for a permanent installation. A copy of such publications may be obtained, free of charge, from your dealer or by writing directly to Trinseo.

This Limited Warranty does not cover damage caused by:

- 1. Failure to follow Trinseo’s procedures for handling, fabrication and installation.
- 2. Physical abuse, structural movement, damage from excessive heat, or breakage that is not caused by or due to a manufacturing defect.
- 3. Failure of any adhesive, caulk, or other finishing or maintenance accessory, or failure of any caulked or filled joint or seam.

This Limited Warranty applies only to ADVANC3® products:

- 1. Purchased for use in the United States and other countries where ADVANC3® is distributed, fabricated and installed by a qualified fabricator/installer.
- 2. Which fail due to a manufacturing defect; and
- 3. Which have not been moved from their original place of installation.

This Limited Warranty is for applications such as countertops, vanities and vertical applications, but does not apply to kitchen installations, where heat and moisture are prevalent, or installations in mobile environments such as recreational vehicles, marine crafts and airplanes. This Limited Warranty does not cover material exposed to weather conditions or exterior applications such as grill tops & exterior counters. This Limited Warranty does not cover color. If during or after installation you decide that you do not like the color selected due to sample chip variance, website or printed literature representation or other reason, replacement is not covered by this Limited Warranty.

For coverage under this Limited Warranty, you must register online at www.aristechsurgaces.com. Trinseo will assign a warranty registration number.

To obtain service under this Limited Warranty, write to the dealer/contractor from whom you purchased the product or alternatively write to:
Trinseo at the address given below. Include the phrase “ADVANC3® Products, Ten-Year Limited Material Warranty”, your name, address, a description of the problem and your warranty registration number. A response will be sent within 60 days. Trinseo’s obligation hereunder is limited solely to the repair or replacement, including reasonable, necessary labor charges, of the ADVANC3® product purchased hereunder.

The address to which warranty claims should be reported is:
Trinseo
Attn. Director of Quality
7350 Empire Drive
Florence, KY 41042

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Effective March 1, 2019

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