Avonite Surfaces Product Introduction 1.1

For over 25 years the debate of polyester versus acrylic solid surface has rumbled through fabrication shops. Avonite Surfaces is in the unique position of offering both types of products. These product types share many common characteristics but some products from Avonite are so unique that they deserve special recognition for their applications and fabrication techniques.

To Fill or Not to Fill

The majority of solid surface products are composed of polymer resins and a mineral filler called alumina trihydrate (ATH). The resins are typically polyester, acrylic, or a blend of the two. Polyester resin is a thermoset polymer while acrylic is a thermo plastic resin. To produce a solid surface product with acrylic resin, you must add ATH filler. Only with the filler can you create an acrylic product that can be cut shaped and sanded. Without the filler the acrylic resin is too soft . Solid surface products made from polyester resins do not require the ATH filler to be machined. Producers have a choice of how much ATH filler to use.

ATH filler is a fine white powder that clouds the matrix. Products with high levels of ATH are opaque where as products using small amounts can maintain their clarity and depth. This is where Avonite Surfaces stands alone. We are the only major producer of solid surface that has chosen to create some products with minimum amounts of fillers to achieve depth and clarity found in no other solid surface product.

PRODUCT SUMMARY

STUDIO COLLECTION™
BEYOND ORDINARY

The Studio Collection features a wide variety of products that are unparalleled in their beauty and composition. From dynamic colors and natural textures, to our series of recycled products and rich collections inspired by glass, concrete, and metallics, no other company offers you more choices.

Standard Sheet Size is 36” x 120” x 1/2” (91.5cm x 304.8 cm x 12mm)

Custom colors are available.

These products are made in the USA at our Belen, NM facility.

FOUNDATIONS™
ADVANCED ACRYLIC SURFACING

The Foundations Advanced Acrylic 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 custom size sheet capabilities. Go to www.avonitesurfaces.com for details.

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

1/4” Standard Sheet Sizes are 60” x 72” x 1/4” (152.4cm x 182.9cm x 6mm)
* 36” x 96” x 1/4” (91.5cm x 243.9cm x 6mm)

PRODUCT IDENTIFICATION: F= Foundations Acrylic / K= Crystelle / C,G= Traditions
The second digit represents the Fire Rating : 1= Class 1 /A 3= Class III/ C

Shaped Products

Fully integrated sinks provide a seamless bond between the counter and sink leaving no space for bacteria to gather. This non-porous combination remains the wise choice for healthcare facilities and more.

Our Sinks and Bowls are acrylic and supplied by Schock from Germany. See available models and colors on page 3.6.

Tub and Shower Kits

The Foundations wide sheet acrylic are used to make seamless tub and shower walls. There are two common sized kits to choose from and custom kits are available for larger commercial projects.

FOR SHEET AND SHAPED PRODUCTS

FIRST AID PROCEDURES:

Avonite Surfaces 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 affected individual to fresh air. If symptoms persist, consult a physician. Styrene—Although no vapor build-up is expected, excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache and even asphyxiation. Remove affected individual to fresh air. If symptoms persist, consult a physician.

SKIN OR EYE:Nuisance Dust—May cause irritation. Wash skin and flush eyes with water for at least 15 minutes. Contact physician if irritation persists. 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. Wear protective leather or cotton gloves, safety glasses and safety shoes when installing or fabricating Avonite Surfaces 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 MATERIAL SAFETY DATA SHEET.

INLAY RESIN

CAUTION:

- FLAMMABLE COMPONENTS; AVOID HEAT, SPARKS AND OPEN FLAME.
- WEAR SAFETY GLASSES AND PROTECTIVE GLOVES.
- FOR PROFESSIONAL USE ONLY.
- USE ONLY AS RECOMMENDED.

The Inlay Resin is a polyester resin used with MEK peroxide. These components and vapors may cause irritation of the skin, eyes, nose and throat. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. USE ONLYWITH ADEQUATE VENTILATION; AVOID BREATHING VAPORS. WASH HANDS AFTER USE.

EMERGENCY AND FIRST AID PROCEDURES: In case the resin or catalyst contacts your skin, wash with soap and water, for at least 15 minutes. For eyes, immediately flush with water for at least 15 minutes. Contact physician if irritation persists. In case of ingestion, immediately consult a physician or your local poison control center, identifying the catalyst as methylethyl ketone peroxide solution in dimethyl phthalate containing a small amount of hydrogen peroxide, and the resin as an unsaturated polyester in styrene monomer.

SPECIAL HEALTH EFFECTS: Excessive inhalation of resin monomer may aggravate pre-existing medical conditions such as, but not limited to, chronic respiratory problems, skin disease and central nervous disorders. There is a low health risk from inhalation of the filler dust. Avoid inhalation or eye contact.

DISPOSAL PROCEDURES:Un-reacted resin and hardener are classified as hazardous waste. All components should be disposed by mixing so that they react and become fully cured and solid. At this point, they can then be disposed in accordance with local, state and federal regulations, as non-hazardous solid waste.

FOR MORE COMPLETE INFORMATION, REQUEST THE MATERIAL SAFETY DATA SHEET, or visit www.avonitesufaces.com.

AVONITE SURFACES SOLID SURFACE ADHESIVE

• FLAMMABLE COMPONENTS: Avonite Surfaces Solid Surface Adhesive Component A contains acrylic resin and Component B contains benzoyl peroxide. The liquid and vapors may cause irritation to skin, eyes, nose and throat and may even cause an allergic skin reaction.

• AVOID HEAT, SPARKS AND OPEN FLAME

• USE ONLY AS DIRECTED

• WEAR SAFETY EYE PROTECTION

• AVOID CONTACT WITH EYES, SKIN AND CLOTHING

• HAVE ADEQUATE VENTILATION

• AVOID BREATHING VAPORS

• WASH HANDS AFTER USE

EMERGENCY AND FIRST AID PROCEDURES:

If the Avonite Surfaces Solid Surface Adhesive resin or hardener contacts your skin, wash with soap and water for 15 minutes. For eyes, immediately wash thoroughly with plenty of water for 15 minutes and consult a physician. In case of accidental ingestion, immediately consult a physician or your local poison control center, identifying the hardener as benzoyl peroxide in plasticizer and the resin as acrylic resin in methylmethacrylate monomer.

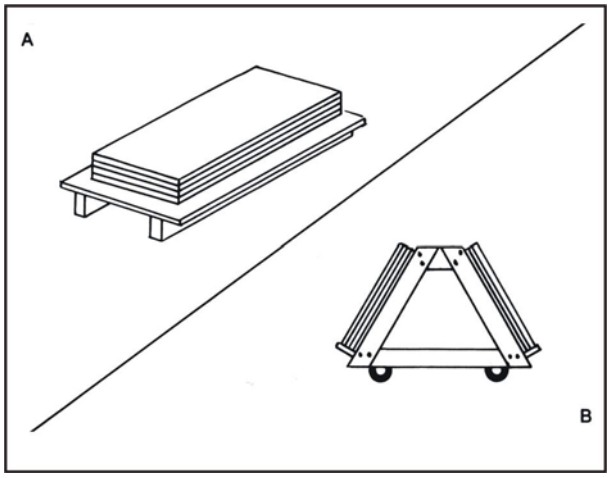
SPECIAL HEALTH EFFECTS:

Excessive inhalation of resin monomer may aggravate pre-existing medical conditions such as, but not limited to, chronic respiratory problems, skin disease and central nervous disorders and may cause nausea and loss of consciousness.

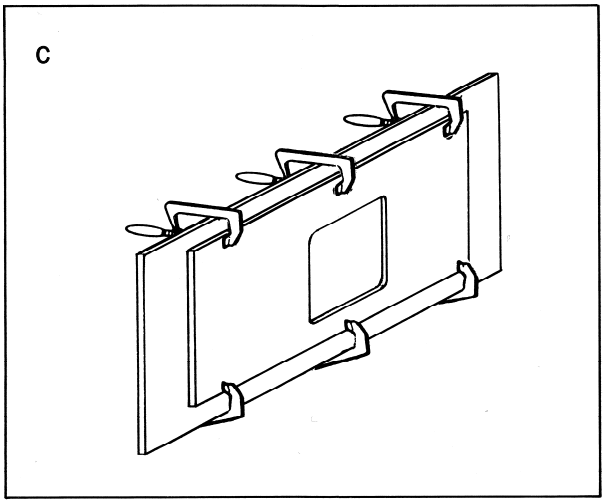
DISPOSAL PROCEDURES:

Acrylic resin and hardener when disposed in liquid state are hazardous waste but when mixed and polymerized are non-hazardous solid waste. Dispose of used or unused Avonite Surfaces Solid Surface Adhesive by mixing components, allowing the mixture to solidify and then disposing in accordance with applicable local, state and federal regulations. The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility.

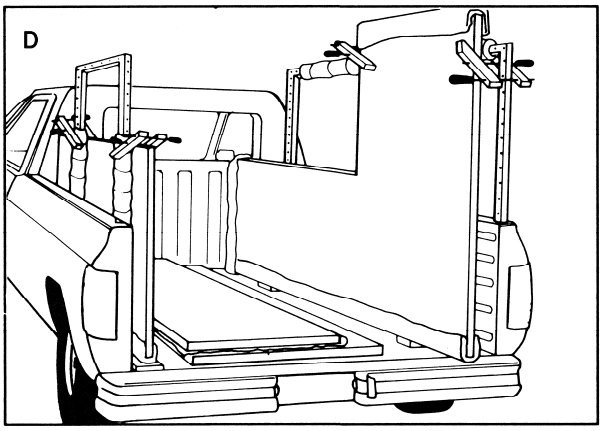
FOR MORE INFORMATION REQUEST THE MATERIAL-SAFETY DATA SHEET, or visit www.avonitesurfaces.com.



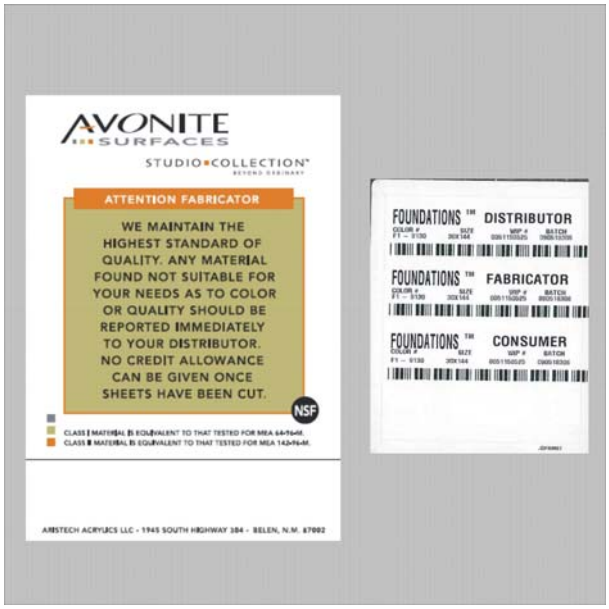
Avonite Surfaces material should always be stored FLAT and evenly supported. Figure A demonstrates a framed substrate. Figure B is an A-Frame storage bin.



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 (Figure C).

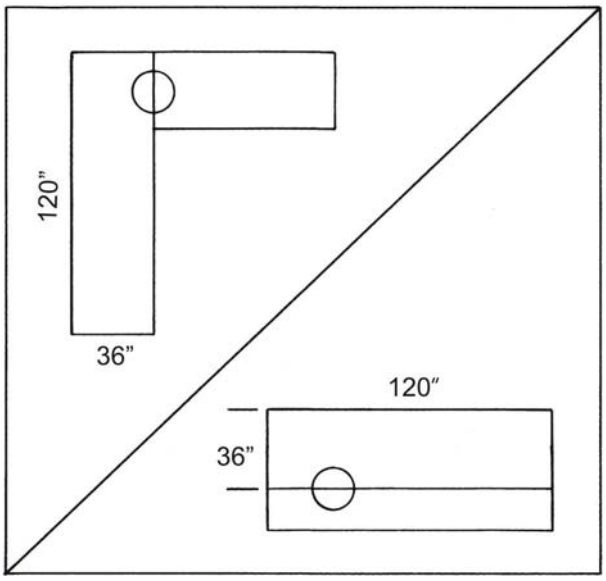


Avonite Surfaces can be transported lying flat on an evenly supported and padded surface. Large fabricated sections should be transported on edge. Pad the edges to prevent damage and brace to prevent movement (Figure D). When transporting Avonite Surfaces in an exposed vehicle, pieces should be wrapped 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.



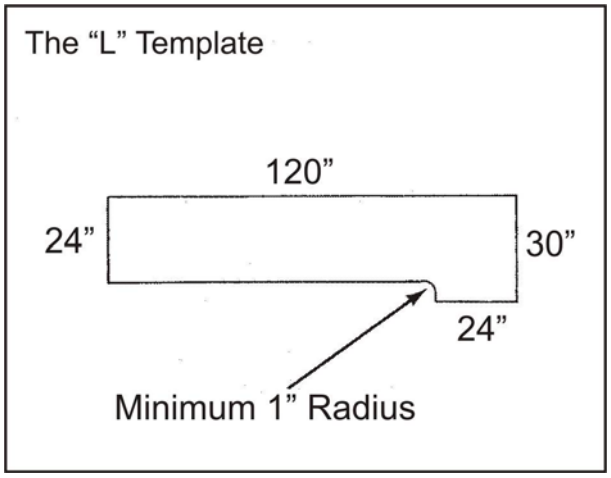
Every Avonite Surfaces sheet has a sticker which displays an identification number. When ordering multiple sheets to be seamed, be sure that sheets come from the same batch.

Please notify distributor of this fact when ordering. Advise that you need sheets with consecutive numbers. Although the Avonite Surfaces sheet has been inspected prior to shipment, always remove 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 they will be installed. Sand 12"-16" (305mm - 407mm) of the surface to verify color match. After sanding, wet material with alcohol or water.

For Studio Collection, be aware that the pattern at the edge and end of the sheet may be different from the center of the sheet. This may not be noticeable when looking at a single sheet. Always plan to trim 1"-2" (25mm- 51mm) off an edge to be joined to another piece. Aristech Acrylics LLC does not honor any claims that have migration due to not trimming the sides or ends of the sheet when joining them together.



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' (305cm) long by about 30"(76cm) wide. The inside corner will have a minimum 1"(25.4mm) radius. The L-Template may be reversed and used for either side. Clamp the L-Template securely to the Avonite Surfaces 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 Avonite Surfaces Solid Surface Adhesive has hardened, 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 Surfaces Solid Surface Adhesive. This will result in a clean and smooth edge requiring minimal sanding.

LOCATING SEAMS

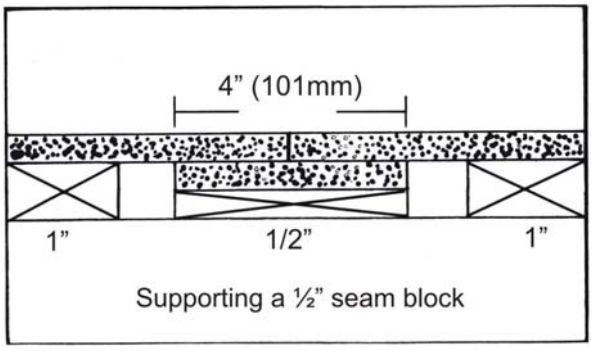
When you lay out your job, consider where you need to place the seams. Make as many seams as possible in the shop and not in the field. All seams must be supported. Avoid placing seams in the following locations:

1. Inside corners (Minimum 2" [50mm]).

2. In cut outs.

3. Over dishwashers or other heat producing appliances.

4. When using dark colors, avoid placing seams indirect sunlight.

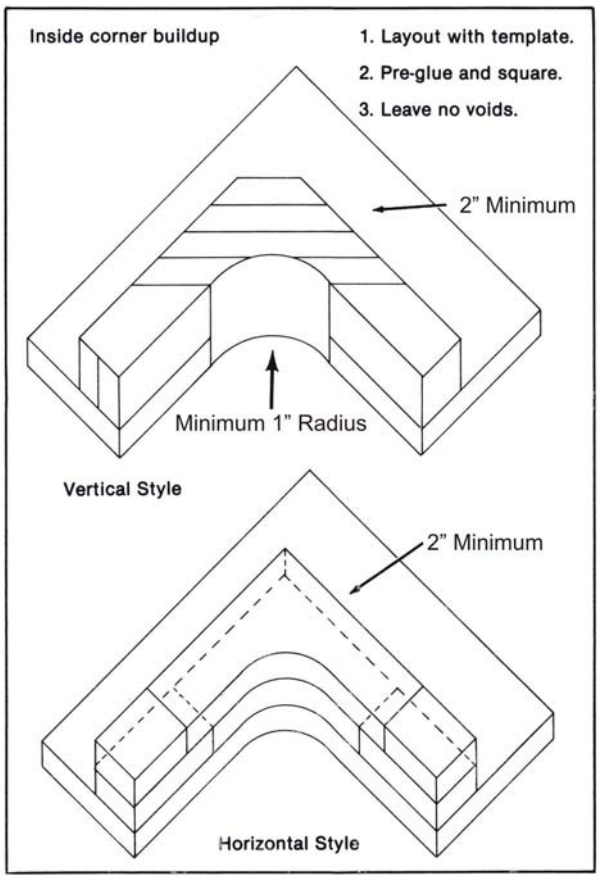


SEAM BLOCKS

The use of seam blocks is recommended for all seams. Seam blocks should be 4" (101mm) wide and be at least 1/2" (12mm) thick. Join the seam block to the underside using Avonite Surfaces 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.

Avonite Glass Series products require different seam block methods. See section 1.8.

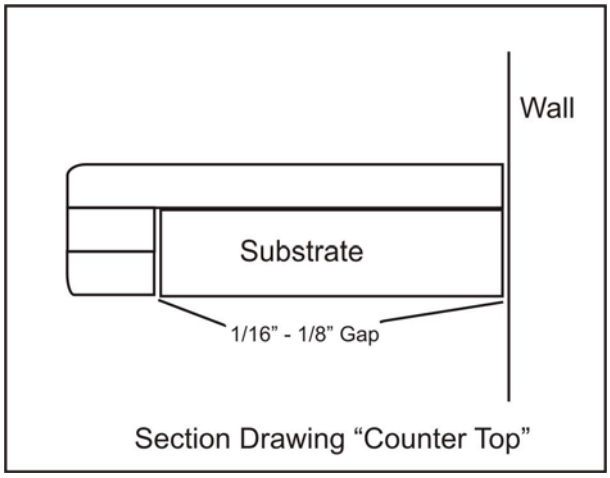


INSIDE BLOCKS

Avonite Surfaces material requires a minimum 1"(25.4mm) radius on drop edge inside corners. This diagram shows the recommended build up. After the buildup is made, use a template to cut the desired radius (see L-Template).

EXPANSION AND CONTRACTION

Like all solid surface materials, Avonite Surfaces material expands or contracts with temperature variation. The following changes in length may occur with a swing in temperature of 55° F (31 ° C). Class I (Filled)— 1/8" (3mm) for every 10' (304.8cm) Class III (Unfilled)— 3/16" (5mm) for every 10'(304.8cm) Always leave appropriate clearances for expansion and contraction.



TILE BACKSPLASHES

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

TRANSLUCENT COLORS

Glass Series products are translucent and may require a seal coat of water based interior/exterior primer on back of the sheet to reduce shadowing effects. For more information call the Avonite Surfaces Technical Service Department.

DESIGNING AND FABRICATING WITH AVONITE SURFACES GLASS SERIES AND PETALS

The unique translucent quality of Avonite Surfaces Glass and Petals products allows you to exercise a great deal of creativity. For this reason, it is expected that there will be many new applications that will produce unanticipated effects. By all means experiment, be creative, and consult with us as you have questions. However, always make sure that the end result will meet your expectations. We recommend that you create a sample mock up to share with your customers.

The Nature of the Glass Series and Petals Product

Keep in mind that dabs of silicone, supports, and under-mount sink flanges will show through these products like any typical glass. When the products are laminated together for a thicker appearance, such as a drop edge or seam block, they will appear darker due to reduced light transmission. These special effects can be worked into the design for a unique aesthetic effect or application. Thermoforming Glass and Petals Series products is not recommended due to potential color shifts.

When these products are chosen for more typical applications, where less transparency is desired, the backsides of the finished tops must be undercoated to hide any supports. For best results, we recommend undercoating with a white latex paint. This brightens the top closer to the sample chip but magnifies the contrast to the darker edge. This effect should be demonstrated to the end user. Avoid paints with non stick additives. Painting should be done after fabrication to avoid painting areas where solid surface adhesive will be applied.

Frosted glass offers unique opportunities for painting the back different colors to achieve custom hues that transmit through the sheet.

The translucent nature of these products allow light to travel through the sheet and sometimes show an interruption such as a seam. Lighting conditions can sometimes mask or amplify this effect. In almost all conditions the 1/2" thick edge of the top sheet will appear brighter because in fact it is gathering more light and transmitting that light to the edge.

NON TYPICAL SEAM BLOCKS

Due to the translucency of Frosted Glass, Antique Glass, Sky Glass, Amber Glass, Sirocco, Cirrus, and Neptune, typical seam blocks are noticeable. We recommend the following procedure for reinforcing seams in these transparent products.

The edges of the seams should be routed with the Pinske Wavy Bit System. This allows for additional glue area and aligns the surface. After the glue has dried, sand seam and flip sheet over and do the remaining fabrication, edge build up, sinks etc. Clean up excess glue before it dries. Then paint the back of the sheet with a flat latex paint (White). After the paint has thoroughly dried, attach the substrate. Glue a 4" piece of substrate on the seam as a seam block using extra **silicone**. For field seams, prepare edges as above, but stop substrate 2" from each edge of the seam and apply the 4" wide substrate "seam block" when making the field seam.

If there are seams in a top that is to be backlit, run a full sheet of ½" white acrylic under the top to support the seam. Do not glue a separate 4" piece of acrylic under the seam.

BACKLIT APPLICATIONS

For backlit applications, you may use 1/2" (12mm) acrylic to support larger spans. Using the 1/2" (12mm) acrylic sheet as a solid substrate is recommended. Frosted or white acrylic may be used to diffuse the light source. When adhering the Avonite Surfaces glass product to the acrylic, we recommend small pieces of 3M VHB double sided tape. If clear acrylic is used, it should be sanded with 100 Micron to frost the surfaces. This will help hide the adhesive tape. **Always test a small piece to judge appearance.**

Backlit Applications that require deck seams or have unsupported spans will require special consideration. Please call Avonite Surfaces Technical Services 800.428.6648 as you have questions.

SEAMING THE NEW PETALS

The new Petals products should be fabricated the same way as the original Glass Series. Because of the very large petal shapes, these products will have more conspicuous seams. The Petal products are hand crafted creating an organic patterns that have different petal flake concentrations across the sheet. This too will effect the appearance of seams in a completed top.

Designing and Fabricating with Special New Metallic

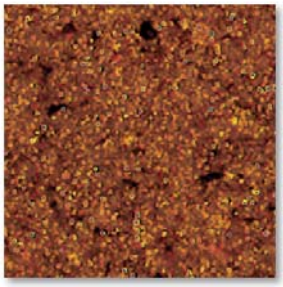
The appearance and seaming qualities of these new special metallic colors is different than conventional solid surfaces. These three products have a light reflective quality that provides an optical effect or “direction” that shows lighter or darker depending on the angle from which they are viewed. This unique reflective quality allows patterns to be created where sheets are joined together. All seams will show this inherent reflective quality and will be visible unlike standard solid surface. The color will appear to change when viewed from different angles. These effects can be incorporated into your designs.

These directional patterns are not detectable in single sheet applications where no seam is required. Seams made from the same sheet will also be noticeable. Because of these conditions there will be no claims allowed for color matching of these products.

Designers and fabricators must consider these characteristics when using these three products.

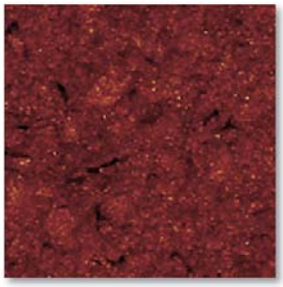
Contact Avonite Surfaces Technical Services for any questions.

1–800–866–TECH



COSMIC PENNY
K3-8590

SILVER COMET
K3-8585



MARTIAN SUNSET
K3-8595