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SOLID SURFACE

CORIAN® SOLID SURFACE BACKSPLASHES

Introduction

This bulletin addresses the fabrication of Corian® Solid Surface backsplashes.

Overview

Corian® Solid Surface backsplashes are both decorative and functional. Coved backsplashes in particular can be easier to clean. This document describes several backsplash options and the associated fabrication methods.

A. Standard Height Backsplash

The Standard Height Backsplash describes a return up the vertical wall behind the countertop that is seamed to the countertop with silicone adhesive using a simple butt seam.

Figure A-1

Corian® Butted Backsplash

Silicone Sealant

Hot-Melt Adhesive

Perimeter Support
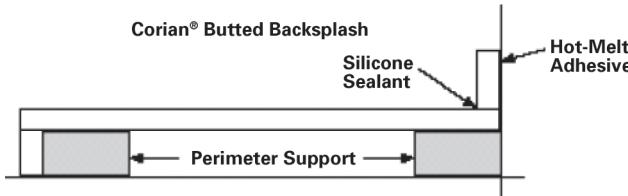
Steps to completion:

1. After the countertop has been installed, confirm that it is level and measure from countertop to desired height of backsplash.

2. Check for any obstructions along the wall such as power outlets, windowsills and any other obstructions.

3. Cut the backsplash to approximate size and place sections in position.

4. Scribe the backsplash to match the countertop.

5. Trim to pencil lines and check fit.

6. Remove any nonpermanent obstruction from the wall that will prevent a close fit of the backsplash to the wall. In addition, make any cutouts required to accommodate power outlets, windowsills, etc.

7. Wipe edge face and countertop to be seamed with clear, denatured alcohol[1].

8. Select color-matched, mildew-resistant silicone sealant and apply a large bead along the entire seam area.

9. Every 20" (508 mm), apply a small dab of hot-melt adhesive to the wall to hold the backsplash in place while the silicone cures.

10. Place the backsplash in position and wipe surplus sealant from the seam angle.

11. Use the "push" method to apply sealant between the backsplash and deck.

Do not adhere backsplash to the wall with silicone. This will cause separation from the countertop during settling. If backsplash butts into underside of windowsill, seal between them using silicone. Do not use joint adhesive as this may restrict expansion/contraction.

HELPFUL HINTS
Leave a small radius in the inside corner to make cleaning easier. Wipe up excess silicone using a rag dampened with denatured alcohol.

B. Coved Backsplash Fabrication Aids

To make installation as quick as possible, the following special supplies are useful:

• Squaring blocks

• Wooden clamping strips sufficient to cover entire length of backsplash

• Painters masking tape

• Several $^1/_2$" x 1" x 2" (12 mm x 25 mm x 51 mm) Corian® Solid Surface blocks wrapped with aluminum tape to dam ends

• $^1/_2$" double-flute, carbide-tipped router bit

[1]Denatured alcohol is the preferred solvent for cleaning Corian® Solid Surface products. Acetone is approved for cleaning in regions where denatured alcohol is prohibited. Please see *Corian® Solid Surface Fabrication/Installation Fundamentals – Approved Cleaning Solvents* (K-25701) for more details

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SQUARING BLOCK

Use one squaring block per every 6-12" (150-300 mm) of backsplash length plus one for each inside and outside corner.

Figure B-1: Squaring Block
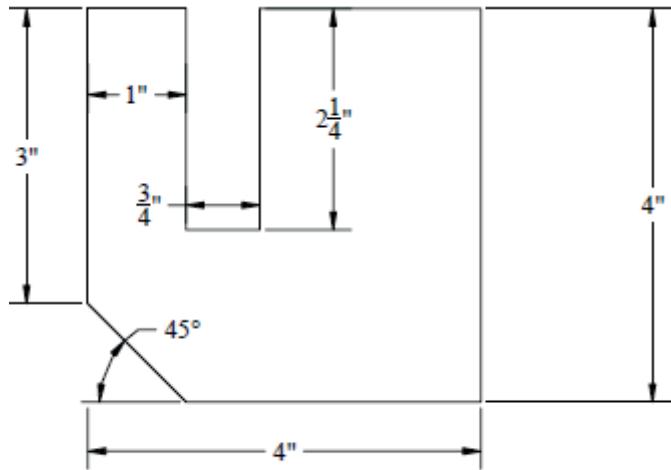
To use the squaring blocks, position with the 45 degrees cut near the cove, at 12" to 14" (300 mm to 350 mm) intervals. Adjust the splash piece so that blocks rest flush against backsplash and deck. Apply hot-melt adhesive where block rests on deck. See Figure B-2.

Figure B-2
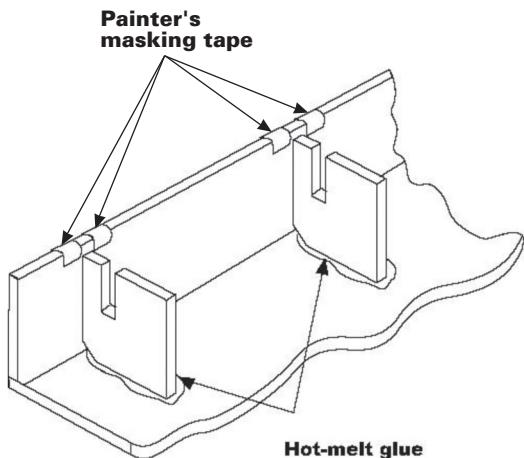
Figure B-3
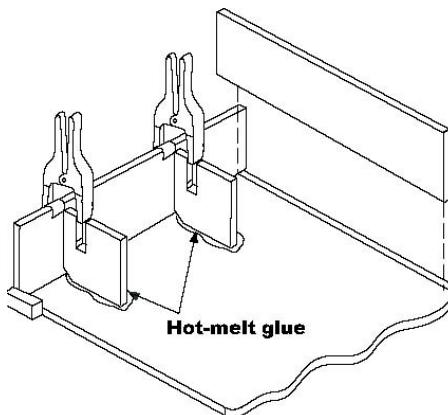
When removing blocks and clamps, spray the hot-melt glue with denatured alcohol to ease removal.

CLAMPING STRIP

To make clamping strips, run pieces of 1" x 3" (25 mm x 76 mm) wood lathe or $^3/_4$" (19 mm) plywood through table saw with blade set to 45 degrees. Cut to dimensions shown in Figure B-4.

Figure B-4: Clamping Strip dimensions
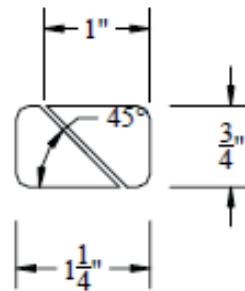
Figure B-5: Clamping Strips in use
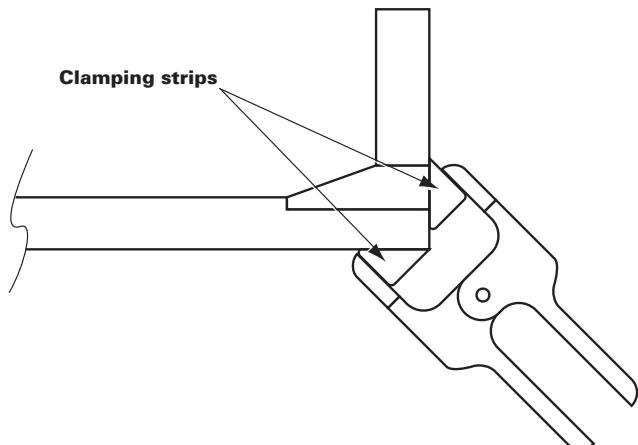
C. Fabricating Coved Backsplashes

Coved backsplashes can be an attractive upgrade that facilitates cleaning.

Because of the unique characteristics of veined or reflective colors of Corian® Solid Surface, a cove created with traditional fabrication techniques may not match the sheet appearance of the deck or backsplash. A new method for forming coves by themoforming has been developed for these colors and is described in Corian® Solid Surface Specialty Application Bulletin – Thermoformed Coved Backsplash (K-28253). When using traditional fabrication techniques as described here, it's advisable to inform the end consumer of this outcome to ensure their satisfaction. Physical samples will help demonstrate the cove appearance. Refer to Corian® Solid Surface Product Fabrication Bulletin – Directional Aesthetics (K-26833) for more information on which colors have directional aesthetics.

C.1. COVED BACKSPLASH WITH BUTT-SEAMED CORNERS

For more information on coving routers, contact router manufacturers.

Steps to completion:

1. Place the Corian® sheet on a level workbench with easy working access to the rear of the sheet where the backsplash is to be built.

2. Cove strip: With an accurate straightedge, a two-flute cutter and a 3-hp router, true the back edge of the sheet. This will become the leading edge of the cove strip.

3. Optional: Using a router, rout a 45°, $^5/_{16}$" (7.9 mm) bevel along the back edge to reduce cove routing later. This 45° bevel will be $^1/_{16}$" (1.5 mm) undersized to allow material for the cove router to cut after glue-up.

4. Cove strip: Rip the cove strip from the back of the sheet to exact size, $^7/_8$" (22 mm) from edge. Cut countertop to correct depth.

5. Countertop: Make a rabbet $^1/_8$" (3 mm) deep by $^7/_8$" (22 mm) wide the length of the back edge to be coved. A 1" (25 mm) diameter, two-flute cutter in a 3-hp router works well for this step.

6. Cove strip: Cut the beveled cove strip to length. At corners, miter-cut the strip and dry-fit. The countertop, cove strip and backsplash are shown in Figure C-1.

7. Clean the countertop rabbet and cove strip thoroughly with denatured alcohol.

Figure C-1

Backsplash
Cove strip
DuPont™ Corian® countertop
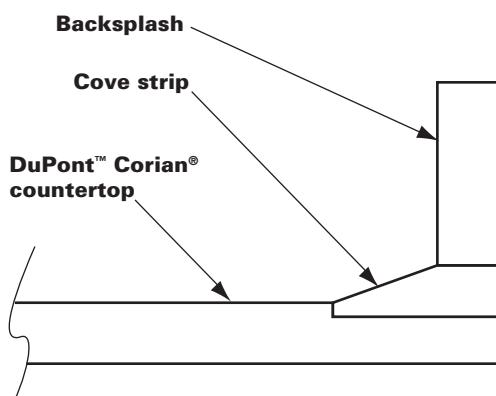
Apply painter's masking tape along the countertop $^1/_{32}$" (0.8 mm) away from rabbet to reduce cleanup.

8. Apply Corian® Joint Adhesive along shoulder of the countertop rabbet and a thin bead $^1/_4$" (6 mm) from back edge.

9. Carefully spring-clamp the cove strip into position. Apply spring clamps every 2" (51 mm), forcing the cove strip forward. Allow the joint adhesive to cure 45 to 60 minutes.

10. Backsplash: Rip the backsplash to desired height or width, noting the $^3/_8$" (10 mm) rise of the cove strip in the countertop. Repeating step 2 above is recommended on the seaming edge. Allow $^1/_{16}$" (1.5 mm) additional width for cleanup.

11. Clean up adhesive at cove strip corner seams as necessary and dry-clamp backsplash in position. Inspect for perfect fit.

12. Hot-melt squaring blocks (see Figure B-1) every 6" to 12" (150 mm to 300 mm) as needed to hold backsplash in 90° position. This is shown in Figure B-2 and Figure B-3.

13. Clean cove strip and backsplash thoroughly with denatured alcohol.

    If backsplash is butt-seamed at corner, apply painter's masking tape to within $^1/_{32}$" (0.8 mm) of seam on butting pieces to expedite cleanup.

14. Apply Corian® Joint Adhesive along the cove strip and clamp the backsplash into place. Check that the backsplash is flush against the squaring blocks. Do not over tighten bar clamps.

15. Allow the joint adhesive to cure 45 to 60 minutes. Remove painter's masking tape and excess adhesive.

16. Remove all clamps and squaring blocks. Clean and inspect the coving router path. Debris will hamper the coving procedure.

17. Coving router: Inspect the coving router adjustment before beginning. The $^3/_8$" (10 mm) cutter head should be sharp and set at a paper's thickness above the countertop and away from the backsplash. This will allow for sanding and finishing. Rout with a pulling motion left to right where possible. This allows the cutter to run cool and yields better results.

18. Sanding: Caution–Use random orbital sanders with care. They are designed to sand flat surfaces. Pushing them against coved backsplash will result in a tunnel effect. This is not acceptable. Finish-sand as described in *Corian® Solid Surface Fabrication/ Installation Fundamentals – Finishing and Polishing* (K-25298).

A $^3/_8$" (10 mm) furniture scraper can be used before sanding to carefully remove excess glue. Take care not to add scratches requiring additional sanding.

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C.2. COVED BACKSPLASH WITH COVED INSIDE CORNERS
Steps to completion:
Follow the procedures for butt-seamed corners, with the following exceptions:

1. Coving strip: Stop the optional bevel (step 3 above) about 1" (25 mm) from the corner. This allows material for the coving router to shape after assembly. Butt-seam the corner.

2. Backsplash: The end of one backsplash panel will need to be rabbeted as in Step 5 of Section C.1 on the previous page. See Figure C-1. Rip the backsplash panel oversized to allow for cleanup later. Then follow steps 6 through 9 in Section C.1.

3. After adhering a cove strip to the backsplash panel, clean up by routing or sanding, and complete the procedures provided in steps 10 through 18 in Section C.1.

It's important that all parts fit perfectly. Special attention is required at inside/outside corners to ensure good fit. Joint Adhesive and Joint Adhesive 2.0 are never used to fill gaps.

C.3. FULL-HEIGHT BACKSPLASHES
Do not create hard seamed full-height backsplashes. Building settling may cause differential movement of the horizontal surface and the wall, leading to cracking.

Full-height backsplashes should be jointed with color coordinated silicone sealant. Full-height backsplashes are treated as a limited example of wall surfacing and are constructed at installation. More details are available at *Corian® Solid Surface Fabrication/Installation Fundamentals – Transportation and Installation* (K-25299).

D. Referenced Documents

Corian® Solid Surface Fabrication/Installation Fundamentals – Finishing and Polishing (K-25298)

Corian® Solid Surface Fabrication/Installation Fundamentals – Transportation and Installation (K-25299)

Corian® Solid Surface Fabrication/Installation Fundamentals – Approved Cleaning Solvents (K-25701)

Corian® Solid Surface Product Fabrication Bulletin – Directional Aesthetics (K-26833)

Corian® Solid Surface Specialty Application Bulletin – Thermoformed Coved Backsplash (K-28253)

PLEASE VISIT OUR WEB SITE: WWW.CORIAN.COM OR CONTACT YOUR CORIAN® REPRESENTATIVE FOR MORE INFORMATION ABOUT CORIAN® SOLID SURFACE