

C O R I A N<sup>®</sup>



COUNTERTOP INSTALLATION GUIDE

CORIAN<sup>®</sup>  
SURFACES  
Created For Life.™



This guide describes how to install countertops of DuPont CORIAN®. For fabrication information, including safe practices, recommended tools and procedures, please refer to the Fabrication Manual, C956-H71343.

The information in this guide is given by DuPont free of charge. It is intended for professional use by installers of CORIAN®. The procedures described herein have been shown to be appropriate for the applications described; however, no warranty, expressed or implied, is intended or given. Moreover, the user of this guide is cautioned to be familiar with and to adhere to manufacturers' operating instructions, especially those relating to safety, usage and limitations, for tools and other appliances used in the installation and fabrication of CORIAN®. In addition, the user is urged to become familiar with and adhere to all applicable local, state and federal health and safety regulations.

References to products not made by DuPont suggest neither endorsement of said products nor unsuitability of other products.

If you have questions after reading this guide, call the fabricator who supplied the countertop of CORIAN®.

CORIAN® is a DuPont registered trademark for its surfacing material.  
Only DuPont makes CORIAN®.

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## Contents

4	Introduction
4	Safety
6	Storing, Packing and Transporting CORIAN®
6	Selection and Inspection of CORIAN®
7	Tools and Equipment
8	Tips for Working with CORIAN®
10	Step 1: Prepare for the Job <i>Planning Guide</i> <i>Tools/Materials Checklist</i>
12	Step 2: Prepare Job Site
13	Step 3: Prepare Cabinets
15	Step 4: Fit Countertops to Cabinets
16	Step 5: Complete Cutouts in Place
19	Step 6: Prepare Edges of Joint
20	Step 7: Secure Countertops to Cabinets
22	Step 8: Apply Adhesive to Joint
24	Step 9: Remove Excess Adhesive
26	Step 10: Install Backsplash
31	Step 11: Install Appliances
33	Step 12: Inspect and Clean Up
34	Step 13: Give Care Instructions to Customer

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## Introduction

CORIAN® is a solid material. CORIAN® is neither coated nor laminated; its color, texture and pattern run all the way through the material.

Combining the best qualities of wood and man-made building materials, CORIAN® offers unusual workability with distinctive design versatility.

CORIAN® can be cut, shaped, edged, routed, drilled and sanded to create customized designs.

Its hard, nonporous surface is stain-resistant, exceptionally durable and repairable, and can be cleaned easily with abrasive cleansers.

### ***This guide...***

- Gives basic guidelines for installing countertops of CORIAN®.
- Suggests a sequence of steps which applies to most countertop installations of CORIAN®.
- Presents step-by-step directions for completing each phase of the basic sequence.
- Lists auxiliary products that can be used when working with CORIAN®.

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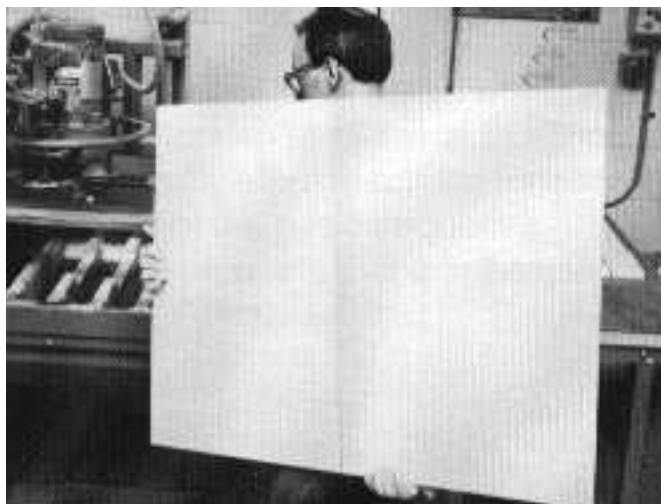
## Safety

Safety information is provided to assist you in developing or modifying your shop safety program. You may wish to consult your insurance company, local, state and federal regulations, and equipment supplier to be sure your safety practices comply with all relevant safety and environmental regulations.

Material Safety Data Sheets for CORIAN® and CORIAN® adhesives outlining health and safety information are available through your Authorized Distributor of CORIAN®.

### ***Safe Practices for Lifting and Handling CORIAN®***

- To lift pallets of CORIAN®, use either a forklift or hand-operated lift of appropriate capacity.
- To load and unload pallets of CORIAN®, use a lift with fork extenders to prevent dragging or damaging the material.
- When handling CORIAN® manually, workers should:
  - Wear heavy-duty work gloves and safety shoes.
  - Grasp sheets of CORIAN® by the edges, not by the smooth surface areas or the nylon straps.
  - Carry single sheets vertically to prevent flexing.



Handling fabricated sheets with seams or attached buildups requires extra care and support to prevent flexing or twisting.

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### ***Safe Practices for Working with CORIAN®***

- When working with CORIAN®, workers should:
  - Wear safety shoes, safety glasses with side shields, goggles or face shields for eye protection.
  - Use ear protection if noise levels from sawing, routing or other machining operations exceed federal or local safety levels.
  - Wear a dust mask when fabricating CORIAN® if ventilation is inadequate to keep dust levels below acceptable limits. Refer to Technical Bulletin, CTDC-111, *CORIAN® Safety Information for Dust and Fumes*, E-97371, for details.
  - Provide adequate ventilation when using all adhesives and denatured alcohol.

Because state and federal regulations vary, DuPont recommends that you consult local, state or federal health and safety agencies, insurance companies, and industrial hygiene consultants for assistance in measuring noise levels.

### ***Safe Practices for Ventilation and Dust Control***

Fine particles that may be generated during fabrication operations for CORIAN® are classified according to OSHA standards as Particulates Not Otherwise Regulated. Use local ventilation and dust collection to minimize dust concentrations in the work areas. Workers sensitive to dust should wear NIOSH-MSHA–approved dust masks.

### ***Explosion***

Dust from CORIAN® does not present a danger of explosion. Independent laboratory tests at Factory Mutual Research and by DuPont’s Engineering Test Center confirm that even when dust from CORIAN® is finely divided and mixed with air, chances of an explosion occurring are remote.

### ***Flammability***

Deposits of dust from CORIAN® will burn when exposed to a flame or other ignition source. However, the fire will not spread and goes out when the ignition source is removed.

### ***Fumes***

Frictional heat generated from sawing and routing CORIAN® can reach or exceed temperatures of 570°F (300°C). This is high enough to release small amounts of methyl methacrylate vapors that can be smelled in concentrations as low as one part per million. Vapors can also be present at the cutting tool face that exceed the threshold limit value (TLV) of 100 ppm. They dissipate with good ventilation, however, to very low levels only a foot or two from the tool. For this reason, localized ventilation should be provided where extensive cutting operations are done.

People with unusually high sensitivity may experience eye, nose or throat irritation from dust and fumes from CORIAN® and should take proper precautions.

Always follow the manufacturer’s safety precautions when using panel adhesive, alcohol and silicone.

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## Storing, Packing and Transporting CORIAN®

### *Storage*

CORIAN® should be stored:

- Indoors, in well-ventilated, dry areas.
- Off the floor.
- Away from temperature and humidity extremes.
- Flat and well supported to prevent flexing.

### *Packing to Deliver*

To transport CORIAN® to the installation site, protect flat surfaces, corners and edges using any of the following packing materials:

- Corrugated cardboard
- Bubble pack
- Closed-cell foam packing
- Preformed corner blocks
- Shipping blankets
- Packing crates

### *Transporting*

Use a soft material, such as clean carpeting or padding, on the delivery vehicle floor to protect the sheets of CORIAN®.

Be sure that the sheets, especially those with partial cutouts, lie flat on the vehicle floor, supported on all sides.

If you are transporting the sheets on edge, brace with lumber and strapping, tie them securely to the side of the vehicle and protect the surface and edges.

If sheets of CORIAN® must be stacked, lay soft material between them, such as scrap carpeting, cardboard or foam.

Follow the directions in “Safe Practices for Lifting and Handling CORIAN®.”

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## Selection and Inspection of CORIAN®

Use these guidelines when selecting CORIAN® and inspecting your stock.

- Use ¼" (6 mm) CORIAN® for vertical applications only, such as backsplashes or wainscot.
- Use ½" (13 mm) or ¾" (19 mm) CORIAN® for horizontal applications or for vertical areas where impact may occur, such as elevator walls. **Do not use ¼" (6 mm) CORIAN® for countertops or any other horizontal applications either with or without support.**
- Remove the protective film from the face side and check for surface defects or damage.
- Check that pieces to be used together are the same color. Preferably, the run number on the backside should be within 50 digits. Inspect for color match under lighting conditions similar to those at the installation site.
- Inspect edges for imperfections or chipping.
- Check for warp in seam area.
- If the material appears defective, contact the fabricator of the top.

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## Tools and Equipment

Use the following guidelines when selecting tools and equipment for installations of CORIAN®. (See the Checklist on page 11 for more information.)

### ***Routers and Bits***

The router is the recommended tool for a wide variety of jobs, including decorative edges, and is **the only tool to use for cutouts**. Use a 3 HP (2.25 kW) router with  $\frac{3}{8}$ " (10 mm) carbide-tipped, single-flute bit and  $\frac{1}{2}$ " (13 mm) shank for cutouts. Use carbide-tipped,  $\frac{1}{2}$ " (13 mm) shank decorative router bits that have a roller bearing for edging. A 3 HP (2.25 kW) router provides a longer service life than a 2 HP (1.5 kW) router.

When installing CORIAN®, use routers with appropriate bits, guides and templates to achieve high quality and productivity. Cuts made with routers:

- Require significantly less sanding and finishing than cuts made with saws.
- Result in rounded inside corners, which discourage cracking.
- Decrease work time and achieve properly finished details and edges.

### ***Sandpaper***

Open-coat silicon carbide sandpaper is preferred over aluminum oxide as it is slower to fill, lasts longer and sands faster. Use heavyweight paper, such as C-weight, J-weight, cloth or resin bond film to reduce tearing. For best results, use microfinishing films.

- For rough sanding, use 100- to 120-grit paper.
- For finishing, use 150-grit or finer paper; then use the maroon Scotch-Brite® (Cat. No. 3M 7447) under an orbital sander to blend all exposed surfaces to the same matte finish. Gloss finishes can also be obtained. See Technical Bulletin CTDC-123, *Finishing CORIAN® Surfaces*, H-47345.

### ***Orbital Sanders***

Orbital sanders (electric or air-driven) used with CORIAN® should operate at **10,000** orbits per minute or more, and should have a rubber pad when sanding wet. For increased productivity, load a stack of sandpaper sheets before starting to sand. Then, peel worn sheets off as you work. For best results, use a random orbital sander.

#### **NOTE**

**Wet sanding should only be done with an air powered or low voltage battery powered sander. Do not use an electric sander to wet sand.**

### ***Adhesive***

Use Panel Adhesive for DuPont CORIAN®. White or clear silicone may also be used.

### ***Caulk***

Use color-matched Silicone Sealant for CORIAN® for most caulk lines.

Use latex or acrylic caulk where surfaces will be painted or wallpapered.

*continued*

Scotch-Brite is a registered trademark of the 3M Company.

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## Tools and Equipment (continued)

### Hot-Melt Glue

Hot-melt glue is an effective tacking device to hold splashes and edge trim of CORIAN® in place until the main adhesive sets up completely.

Whenever possible, apply hot-melt to the other surface and not to CORIAN®. CORIAN® causes hot-melt to set prematurely.

### NOTE

**Hot-melt glue is not a permanent adhesive for CORIAN®. Use it only for tacking.**

Use glue sticks that have a 45- to 60-sec. open life. Shorter open times may cause the hot-melt glue to set prematurely, preventing the proper placement of the CORIAN®.

Hot-melt glue guns are available in a variety of models and prices from many sources.

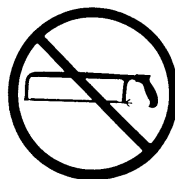
### Tools NOT to Use with CORIAN®

Some of the tools **not** to use on CORIAN® are indicated below.

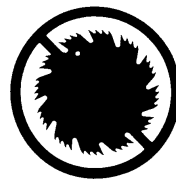
- Saber saws
- Hacksaws
- Ripping or combination blades
- Self-feeding auger bits



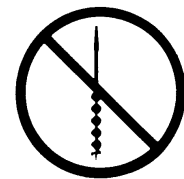
Saber saws



Hacksaws



Ripping or  
combination blades



Auger bits

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## Tips for Working with CORIAN®

The following ideas and practices may increase your efficiency and productivity when working with CORIAN®.

### Cutting

- Use a router and template or straightedge for all cutouts and curved cuts.
- For best results, work with CORIAN® in temperatures of 60°F (15°C) or above.
- Watch the edge quality as you cut to judge if you need to change or sharpen the blade or bit.

### Cleaning

Use a clean, white cloth and denatured alcohol only (i.e., shellac thinner, stove alcohol) to clean CORIAN®. Do **not** use rubbing alcohol, lacquer thinner, acetone or other solvents, which leave an oily film that can interfere with adhesion and discolor seams or caulk lines.



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Remove stubborn marks by rubbing with a Scotch-Brite® pad before cleaning.

Because most CORIAN® is translucent, it is very important to keep CORIAN® clean during installation and fabrication. Marks left on joined edges may show through after the seam is set. In addition, dirt and oils that are not removed will prevent maximum adhesion.

### **Expansion**

CORIAN® expands and contracts as ambient temperature changes. Follow these guidelines to allow adequate space for expansion:

- When making cutouts, allow a minimum of 1/8" (3 mm), ideally 1/4" (6 mm), expansion space on all sides of the insert.
- When preparing CORIAN® for installation, allow 1/8" (3 mm) expansion space for every 10 feet (3,050 mm) of CORIAN®.

When adhering CORIAN®, use a *flexible* adhesive, such as silicone or neoprene-based panel adhesive.

- When screwing through CORIAN®, the hole through the CORIAN® must be 1/8" (3 mm) larger than the diameter of the screw.

### **CAUTION**

**Do not screw directly into CORIAN®.**

### **Chipping**

To control chipping on edges of CORIAN®:

- Use only well-sharpened blades and bits and well-maintained bearings to avoid bit wobble.
- Select the appropriate blade or bit for the job.
- Align the tool correctly before beginning to cut.
- Use templates and straightedges.

### **Cracking**

CORIAN® is vulnerable to stress cracking when:

- Support surfaces are not level or plumb or are not located properly.
- Inside corners are not rounded.
- Chips are left on edges by use of dull or inappropriate blades or bits.
- Edges are not thoroughly smoothed before joining.
- Too much adhesive, or a non-flexible adhesive, is used to secure CORIAN®.
- Not enough room for expansion is provided. A minimum of 1/8" (3 mm), ideally 1/4" (6 mm), is required.
- Butt seams and joints are not completely filled with adhesive.
- Escutcheon plates are overtightened.
- Full underlayment or dust covers are present.
- Screws are used directly into CORIAN®.
- Heat-conductive tape is not used around cooktop cutouts.

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## Step 1: Prepare for the Job

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### Planning Guide

The following general guidelines may help you organize each job.

- Check the CORIAN® for damage and color match. Follow the directions for “Selection and Inspection of CORIAN®” in this guide.
- Check the CORIAN® against the job specifications. Verify the following specifications to ensure that you have the correct material for the design and that the necessary fabrication was completed in the shop:
  - Correct color
  - Color-matched piece for future repairs
  - Pattern match
  - Sheet thickness
  - Backsplash height and thickness
  - Edge design
  - Overall arrangement
  - Seam locations
  - Cutout locations
  - Site measurements against the measurements of the CORIAN®
- Use the Tools/Materials Checklist on the following page to prepare for the job.
- Follow the directions for “Storing, Packing and Transporting CORIAN®” in this guide.

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## Tools/Materials Checklist

- Safety glasses, safety shoes and gloves
- Dust mask (dust and mist mask or “respirator”) and earmuffs or plugs
- Sawhorses and three 2 × 4 × 8’ support rails
- 3’ and 8’ (1,000 mm and 2,400 mm) straightedges for circular saw
- C-clamps
- Extension cords
- Circular saw with carbide-tipped blade (40 teeth)
- Router with a sharp,  $\frac{3}{8}$ ” (10 mm) diameter carbide-tipped bit, minimum 2 HP (1.5 kW)
- Router template or straightedge
- Decorative edge router bits
- Random orbital (finishing) sander, minimum 10,000 orbits/min., with provision for controlling dust
- Sandpaper: standard 120- and 150-grit or finer or microfinishing films
- Scotch-Brite® pads (maroon, general-purpose, 3M #7447)
- Belt sander with 100- to 120-grit belt
- Regular carpenter tools, including: square, level, hammer, nails, file, scribe or compass, tape measure, etc.
- Caulking gun
- Polyethylene (for drop cloths and dust control)
- Wooden bracing strips and shim material
- Panel Adhesive for DuPont CORIAN® (tan-colored), neoprene
- Silicone Sealant for DuPont CORIAN®, correct color to match
- Joint Adhesive for DuPont CORIAN®, correct color to match
- Block plane (low angle) such as Stanley Model 12-060
- 1” (25 mm) chisel with rounded corners
- Clean, white cloths
- Denatured alcohol (i.e., shellac thinner or alcohol stove fuel)
- 4-mil aluminum conductive tape (not duct tape)—available from fabricator
- Spring clamps
- Hot-melt glue gun and glue sticks (minimum 60-sec. open life)

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## Leave-Behinds

- Warranty card
- Care and Maintenance Kit and Video

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## Step 2: Prepare Job Site

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### Preparation Guidelines

- **Prepare your work area.** Set up sawhorses and three 2 × 4 × 8' support rails to perform the various finishing tasks. Weather permitting, this is best done outside to avoid congestion and dust in the kitchen area.
- **Control dust.** Hang plastic drop cloths over all interior doorways, cover vents, hot air return ducts and light fixtures, and use fans to exhaust dust and fumes.
- **Prepare installation area.** On a remodeling job, remove the old counter and any appliances in accordance with local practice, work rules and regulatory requirements particularly with respect to gas, electrical and water services.

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## Step 3: Prepare Cabinets

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### A. Level and shim cabinets.

- Check all cabinets to be sure that they are level and in the same plane.
- Use shims to make required adjustments.



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### B. Fasten cabinets together and to wall studs.

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### C. Install cross supports.

#### *For Appliances and Sinks:*

- Support all appliance and sink cutouts no closer than 1" (25 mm), no farther than 3" (76 mm), from all four edges of the cutout.

#### *For Perimeter Support:*

- If there is no cabinet framing along the backwalls, install wall supports to provide complete perimeter support.
- Perimeter support may be attached to underside of countertop.
- Add appropriate thickness of buildup strips to cabinets for drawer clearance if needed.
- Shim for levelness.



*continued*

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## C. Install cross supports (continued)

### *For Overhang Support:*

- Support  $\frac{1}{2}$ " (13 mm) overhangs extending more than 6" (152 mm) and  $\frac{3}{4}$ " (19 mm) overhangs extending more than 12" (300 mm).

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## Testing Support Designs

Fabricators can check the acceptability of their designs by running the following test:

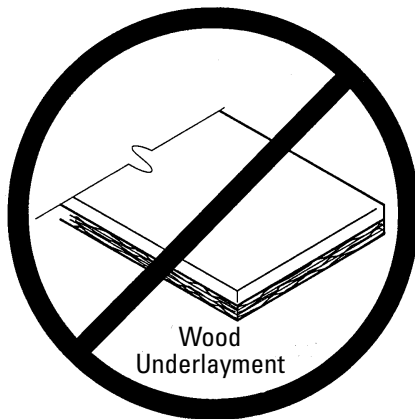
- Install a 25" (634 mm) wide section of CORIAN® countertop.
- Install the proposed support.
- Hang a 100 lb. (45 kg) weight from the clamp between the supports and 1" (25 mm) from the edge of the overhang.
- Measure the deflection caused by the weight. (Measure near the clamp.) The maximum allowable deflection is  $\frac{1}{4}$ " (6 mm).

### CAUTION

**Do not use a full underlayment on the countertop. Sheets of CORIAN® should be lightly adhered directly to the cabinets or wood supports. Full underlayment can cause numerous problems, including overheating the CORIAN® so that it warps and cracks.**

**For example, when full underlayment is used, countertop appliances can heat the CORIAN® to significantly higher temperatures (up to 30°F [16°C] higher) than when perimeter support is used. Refer to the DuPont Technical Bulletin, *Effect of Underlayment on Temperature Buildup in CORIAN®*, E-97351, for details.**

**Dust covers can act like underlayment; if they're present, contact your fabricator.**

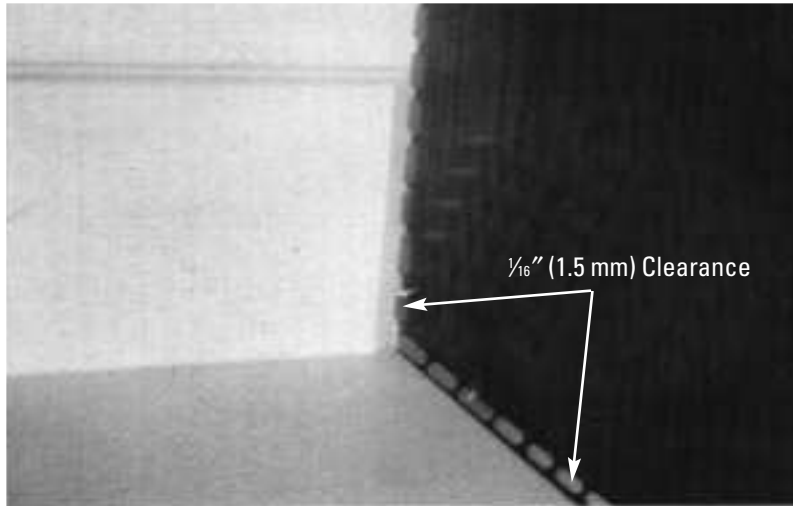


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## Step 4: Fit Countertops to Cabinets

### A. Check edge fit.

- Position the fabricated sheet of CORIAN® on the cabinets and examine the fit of all edges.
- At each wall, allow  $\frac{1}{16}$ " (1.5 mm) clearance for expansion of the CORIAN® and for a proper silicone seal application.



### B. Check joint fit (see step 6).

- Make sure that the mating joint edges are parallel and smooth. To scribe the sheets to fit, use a router guided by a straightedge. Contact your fabricator for assistance.

### C. Check appliance location.

#### ***For Unfabricated Cutouts:***

- Locate and mark the center line for each cutout on the sheet.
- Comply with the manufacturer's specifications for placement of the appliance in the cutout.
- Make a partial cutout in the work area with a router.

#### ***For Fabricated Cutouts:***

- Check cutout location for proper fit and alignment.
- Comply with the manufacturer's specifications for placement of the appliance in the cutout.

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## Step 5: Complete Cutouts in Place

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### A. Support the piece to be cut out.

Hot-melt glue four blocks to the cutout, resting on the countertop, or alternately put two  $\frac{1}{4}'' \times 1''$  (6 mm  $\times$  25 mm) plywood support strips under the cutout to prevent it from falling and damaging the cabinets.



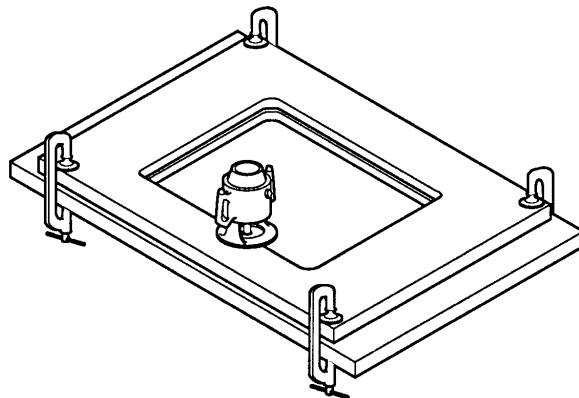
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### B. Complete the cutout with a router.

Use a router with a sharp, minimum  $\frac{3}{8}''$  (10 mm) diameter bit, guided by a straightedge or a template clamped to the top to complete the cutout. Sand edges smooth to 150-grit finish. Radius top and bottom edges to  $\frac{1}{16}''$ . For extremely demanding applications, a stronger cutout design is available. Refer to the DuPont Technical Bulletin, CTDC-119, *Fabricating High-Strength Appliance Cutouts*, H-07240, for details.

#### CAUTION

**Do not use saber or circular saws to complete cutouts. These saws cause small surface cracks, which could cause the CORIAN® to fail.**



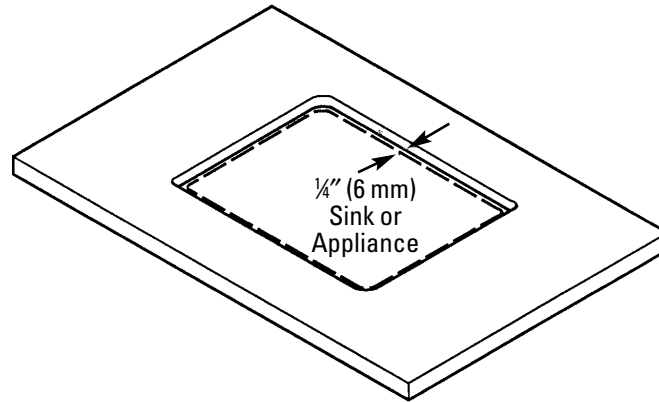
Standard Sink Cutout



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### C. Support, Space, Smooth and Tape (SSST).

- **Support**—Check for front-to-back support. It should be no closer than 1" (25 mm), no farther than 3" (76 mm) on each side of the cutout.
- **Space**—Provide enough space—a minimum of 1/8" (3 mm), ideally 1/4" (6 mm)—on all sides, to allow for expansion.



- **Smooth**—Make cutout with a router only. Radius upper and lower edges to 1/16". Smooth edges with an orbital sander and 150-grit sandpaper or finer or a router and 1/16" roundover bit.



*continued*

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### C. Support, Space, Smooth and Tape (SSST) (continued)

- **Tape**—For cooktop cutouts, apply 4-mil aluminum conductive tape on the cutout edge so that it hangs  $\frac{1}{4}$ " (6 mm) below the sheet and folds over onto the top surface. **Be sure the tape extends beyond the outermost flange or cover of the cooktop.** Cover the corners also with small sections of tape. Trim the excess tape after the cooktop is installed. Do not fold the tape under the sheet.



#### NOTE

**Tape must extend beyond outermost edge of cooktop when cooktop is installed. Cut the tape back to the decorative flange of the cooktop. Two pieces of tape may be needed near reinforced corners.**

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## Step 6: Prepare Edges of Joint

- **Smooth edges.** Edges should have been prepared in the shop. Rout or power plane edges only if necessary. For best results, leave upper edge sharp. Do not ease or sand.
- **Dry-fit seam.** If fit is not proper, contact your fabricator for assistance.



- **Clean edges.** With denatured alcohol and a *clean, white* rag, remove dirt, fingerprints, pencil marks and dust from the joint edges.



### NOTE

Follow manufacturer's safety precautions when using denatured alcohol.

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## Step 7: Secure Countertops to Cabinets

### A. Apply silicone.

- Using one dab of silicone every 12" to 18" (300 mm to 450 mm), secure one sheet to the perimeter support.
- Position and adhere the second sheet, leaving a gap of  $\frac{1}{16}$ " to  $\frac{1}{8}$ " (1.5 mm to 3 mm) between the sheets. Proper expansion space at each wall allows for this gap.

#### NOTE

Keep silicone dabs 2" (50 mm) away from the seam edges.

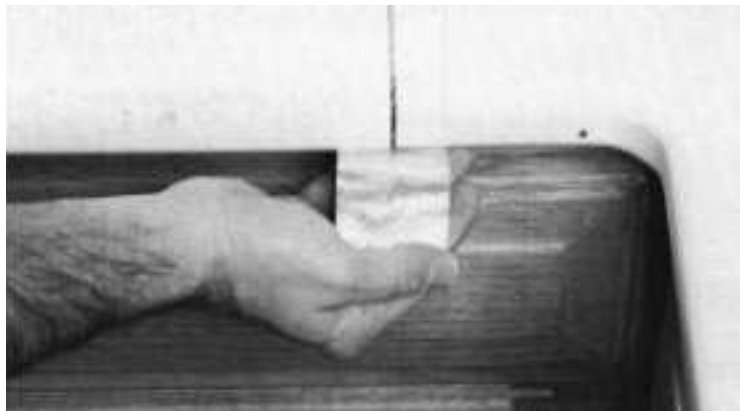


#### NOTE

Make sure that you are ready to complete the joint within 15–30 minutes because the silicone will begin to set up and the sheets will be difficult to move.

### B. Dam underside.

- Place aluminum tape on the underside and front edge where the countertop overhangs the cabinet to ensure that the adhesive does not drip out.
- Protect cabinet fronts and floor underneath seam.

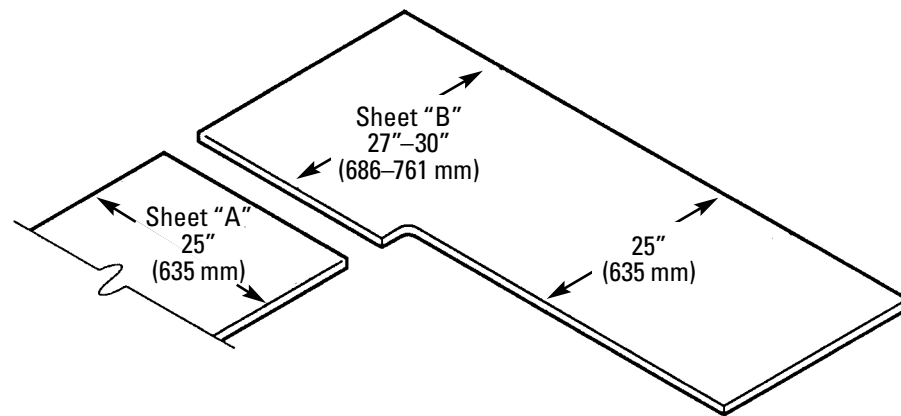


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### C. Provide a radius on all inside corners.

When two sheets butt to form an angle, as in an L-shaped countertop, you must provide a corner with a radius. The preferred method is to offset the seam—a minimum of three times the radius—out of the corner and fabricate the radius using a router and template, as shown.

- Cut Sheet “A” to normal counter width.
- Cut Sheet “B” oversize—from 27” to 30” (660 mm to 761 mm).
- With a router and template, cut the radiused inside corner in Sheet “B,” trimming the width to 25” (635 mm).



- This method is also ideal for fabricating decorative buildup edges. For details, refer to the DuPont Technical Bulletin CTDC-100, *Fabricating an Inside Corner Radius for Decorative Buildup Edges*, E-79386 and CTDC-132, *Fabricating Inside Corners*, H-47333.
- An alternate method is to use insert blocks, then rout in the radius. See Technical Bulletin CTDC-120, *Using the Insert Method to Fabricate Inside Corners*, H-07344.

#### CAUTION

**Do not use the dowel method.**

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## Step 8: Apply Adhesive to Joint

### A. Apply adhesive.

Mix the Joint Adhesive according to the instructions (revised 10/96), making sure to wipe the tip of Component “A” tube. Working from the rear to the front, fill the joint  $\frac{1}{8}$  to  $\frac{1}{2}$  full with adhesive. Keep the tube vertical.

- The butt joint in a build-down strip must be filled also (refer to the Technical Bulletin, *Preventing Crack Starters*, H-03835, for details).

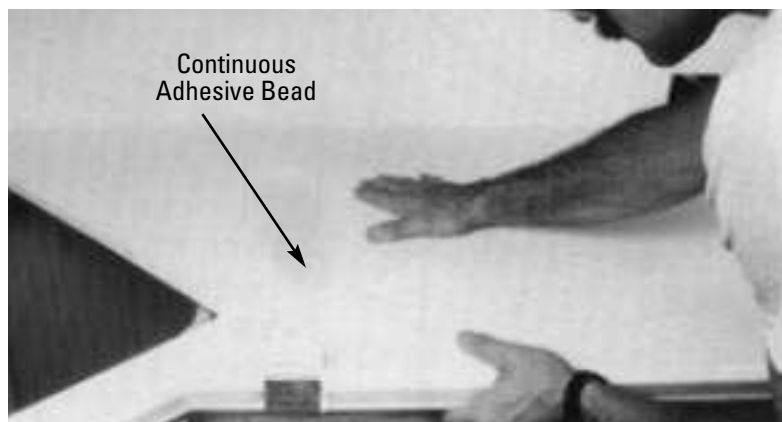


### CAUTION

**Apply adhesive with one pass. Multiple passes can cause voids and air bubbles in the seam. Be sure entire reinforcement strip under seam is covered with adhesive.**

### B. Push sheets together.

- Squeeze out the excess adhesive by pushing the sheets together.
- Let the excess adhesive set on the sheets of CORIAN®.
- If an area is not filled, pull the seam apart, add more joint adhesive and push the sheets back together.
- Use a clean wooden toothpick wiped with alcohol to puncture air bubbles in the adhesive.



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### C. Clamp joints together to set.

- Apply a stream of hot-melt glue onto two 3" (76 mm) blocks and position the blocks on both sides of the seam at each clamp location, approximately 20" (520 mm) apart.
- Attach the blocks to the CORIAN® close to both sides of the joint.
- Using C-clamps, draw the blocks together.
- Finger-tighten the clamps to hold the sheets together until the adhesive sets.
- Remove the blocks and hot-melt glue with a 1" chisel with rounded corners.

#### CAUTION

**Alternate methods can be used; however, do not use pipe or bar clamps because these can completely squeeze the adhesive out of the joint.**



#### HELPFUL HINT

**For easier removal, spray alcohol on hot-melt glue and let set for 10 to 15 seconds.**

---

### D. Allow adhesive to cure.

Do not remove excess adhesive until it's fully set. At room temperature, 65°F to 75°F (18°C to 24°C), the adhesive sets in 45 to 60 minutes. (Cooler temperatures slow setting time.)

#### NOTE

**The adhesive is set when your fingernail will not make an indentation in it.**

#### HELPFUL HINT

**Use a droplight in the cabinet under seam area to warm cool countertops before making seam.**

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## Step 9: Remove Excess Adhesive

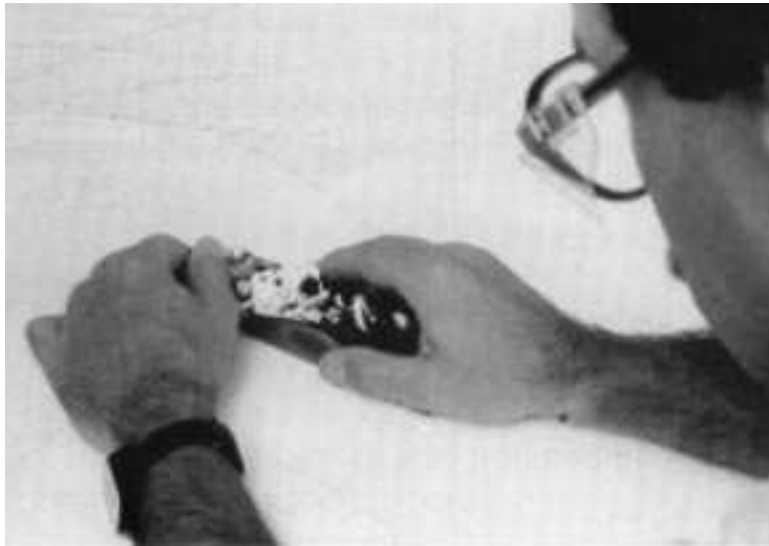
---

### A. Use a block plane or belt sander to level the joint.

A block plane minimizes dust. Use a sharp 1" (25 mm) chisel with rounded corners to remove the excess adhesive near the back wall.

#### *For Block Planes:*

- Use a sharp, low-angle blade, such as Stanley Model 12-060, with rounded corners.



#### *For Belt Sanders:*

- Use 120-grit sandpaper.
- Hold your sander flat, but angled about 45 to 60 degrees from the joint.
- Do not gouge the adjacent sheets of CORIAN®.
- Use light to moderate pressure to avoid overheating the Joint Adhesive.

---

### B. Smooth joint.

- Smooth the joint with an orbital sander equipped with 120-grit, followed by 150-grit or finer, sandpaper. Microfinishing film abrasives can also be used.
- To minimize dust, use a portable dust collection system hooked to the sander.





---

**C. Buff surface.**

Buff the entire surface using a Scotch-Brite® pad under an orbital sander to provide a uniform appearance. If possible, use a random orbital sander with a hook-it pad for buffing with the Scotch-Brite® pad.

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## Step 10: Install Backsplash

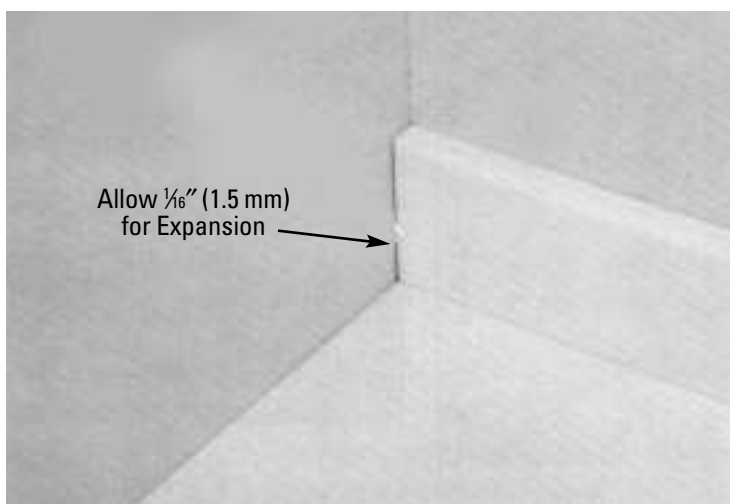
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### A. Identify and mark the backside of splash.

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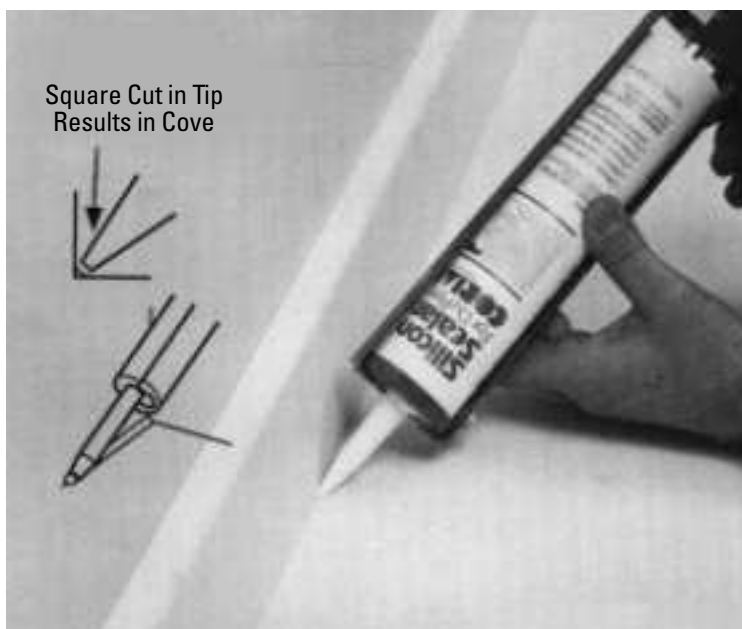
### B. Check backsplash for proper fit.

Leave  $\frac{1}{16}$ " (1.5 mm) minimum clearance at each wall and cabinets for expansion. Caulk expansion space with Silicone Sealant for DuPont CORIAN®.



#### HELPFUL HINT:

When caulking, cut the tip of the tube square and leave a  $\frac{1}{16}$ " (1.5 mm) opening. Push the caulking gun forward along the seamline to minimize applying excess silicone.



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### C. Follow the directions for the type of backsplash you are installing.

Three types of backsplashes are popular with CORIAN®:

- Up to 5" (127 mm) high backsplash of CORIAN®
- Full-height backsplash of CORIAN®
- Ceramic tile backsplash

#### ***For Up to 5" (127 mm) High Backsplashes:***

- Cut to size and fit inside corners. Allow for expansion at each wall.
- Rout and sand edges for design appearance, if required.
- Clean all splash and countertop edges with denatured alcohol.
- Place a continuous 1/8" (3 mm) bead of silicone (color-matched) on the bottom center of the splash.



- Adhere the splash to the top of the countertop, not to the wall, so that the top and the splash will move as a unit. Install with a rolling action from front to back. If the wall is uneven, brace the splash until the silicone sets against the upper cabinets. Hot-melt glue may be used to hold splash in place if desired.
- Caulk the seam between the countertop and the splash with silicone.

*continued*

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## C. Follow the directions for the type of backsplash you are installing (continued)

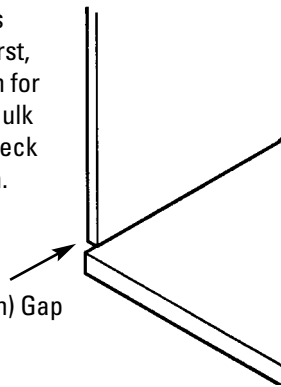
### *For Full-Height Backsplashes:*

- Check backsplash fit at all surrounding cabinets and at each wall, allowing a minimum of  $\frac{1}{16}$ " (1.5 mm) expansion room at each wall and between backsplash and cabinets. Mark the location of all electrical outlets. If the walls are uneven, shimming may be necessary behind the splash.



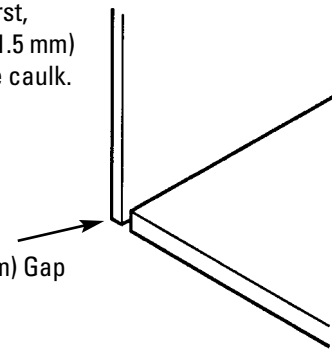
If the top is installed first, allow room for silicone caulk between deck and splash.

$\frac{1}{16}$ " (1.5 mm) Gap



If the splash is installed first, allow  $\frac{1}{16}$ " (1.5 mm) for silicone caulk.

$\frac{1}{16}$ " (1.5 mm) Gap



### HELPFUL HINT

**Putting the backsplash behind the countertop allows for settling.**

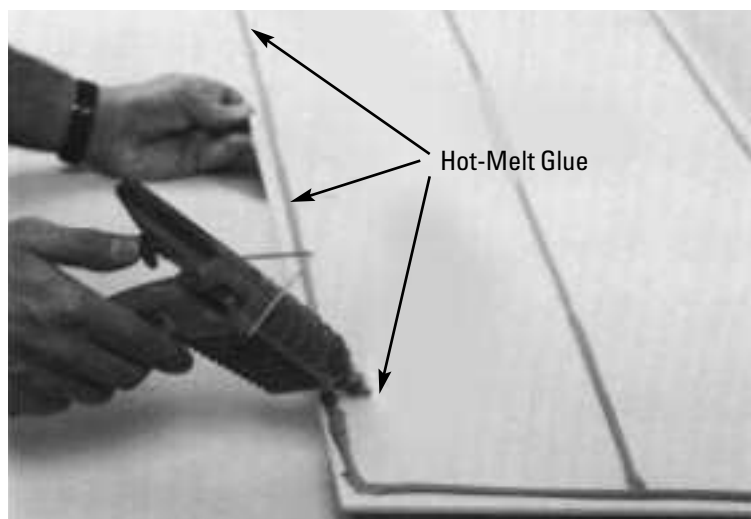
- If you need to screw through CORIAN<sup>®</sup>, drill pilot holes in the CORIAN<sup>®</sup>. The pilot holes should be  $\frac{1}{8}$ " (3 mm) larger than the screw shank. Fasten any screws snug, not tight.
- Cut any openings (electrical outlets) or inside corners with a router only so that all corners are radiused and edges are smooth. This prevents cracking.



Radius all corners with a router and a minimum  $\frac{3}{8}$ " (10 mm) diameter bit.

***To Install Backsplash:***

- Sand all sharp edges.
- Wipe the back of the sheet and the wall using a rag dampened with denatured alcohol.
- Apply Panel Adhesive for DuPont CORIAN®, clear or white silicone to the back of the splash in a continuous  $\frac{1}{4}$ " (6 mm) bead down the middle and 1" (25 mm) from the outer edge. To avoid bracing, add dabs of hot-melt glue to the wall to tack the splash until the adhesive sets. (Install promptly before the hot-melt glue sets.)
- Install the splash and hold in place for 10 to 20 seconds or until the hot-melt glue sets.
- Caulk the seam between the countertop and the splash with silicone.



**CAUTION**

**Do not use Joint Adhesive to seam  $\frac{1}{4}$ " full-height backsplashes to the countertop. This may result in a failure and is not covered by the warranty.**

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**To Make Vertical Butt Joints:**

- Install the first piece of the backsplash.
- Clean all edges using a rag dampened with denatured alcohol.
- Apply silicone to the edge in a continuous bead.
- Install the second piece of the backsplash.
- Squeeze the joint together.
- Wipe off excess silicone before it sets, using denatured alcohol.
- Vertical seams in the backsplash may be done with Joint Adhesive.

**NOTE**

**Do NOT use Joint Adhesive to seam inside corners on full-height backsplash as this does not allow for expansion or contraction.**

**For Ceramic Tile Backsplashes:**

- Leave a  $\frac{1}{16}$ " (1.5 mm) gap for expansion between the top of the countertop and the bottom row of tiles.

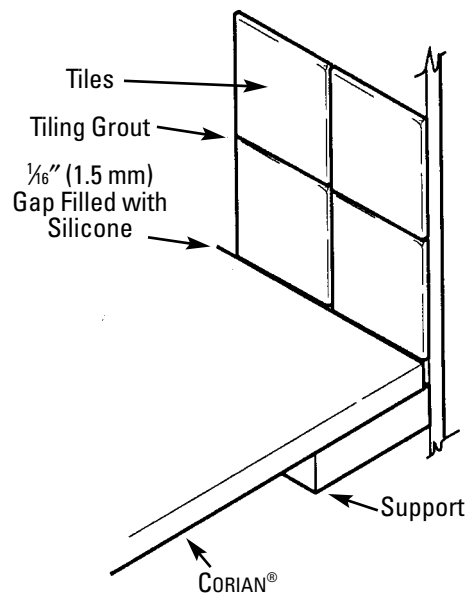
**HELPFUL HINT**

**Slide a laminate strip between the countertop and the tile to verify the  $\frac{1}{16}$ " (1.5 mm) gap.**

- Fill this gap with silicone.

**NOTE**

**Do NOT use grout between tile and CORIAN®. Grout will work loose and fall out.**



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## Step 11: Install Appliances

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### A. Ease all sharp edges.

Use a laminate trimming router with a  $\frac{1}{16}$ " (1.5 mm) roundover list to radius the upper and lower edges of all cutouts.

Use an orbital sander, equipped with 150-grit or finer sandpaper to smooth the edge of the cutout.

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### B. Seal around sinks.

Use Silicone Sealant for a watertight seal.

#### CAUTION

**Avoid scratching or chipping the edges of the cutout with the sharp metal frame of the cooktop unit.**

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### C. Line cooktop cutout.

Use 4-mil (0.004") aluminum conductive tape. (See page 18 for details.)

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### D. Center each drop-in appliance in the cutout, according to manufacturers' instructions.

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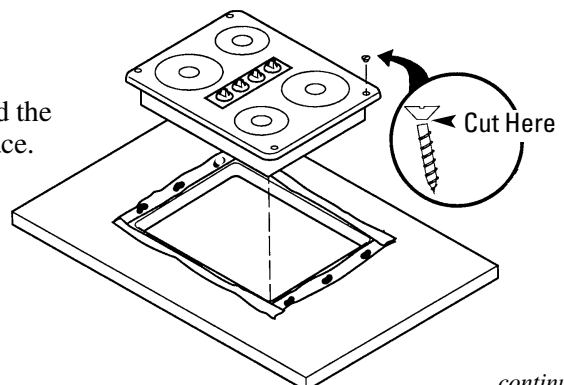
### E. Finger-tighten fasteners to keep appliances in place.

#### CAUTION

**If appliances or sinks are designed to screw into the countertop, do NOT use the screws. They can crack the CORIAN®. Instead, secure the cooktop with Silicone Sealant.**

#### ***For Cooktops with Top-Mounting Screws:***

- Cut the heads off the screws.
- Place *dabs* of Silicone Sealant around the edge of the cooktop and secure in place.
- Set head of screw in the holes with silicone for cosmetic appearance.



*continued*

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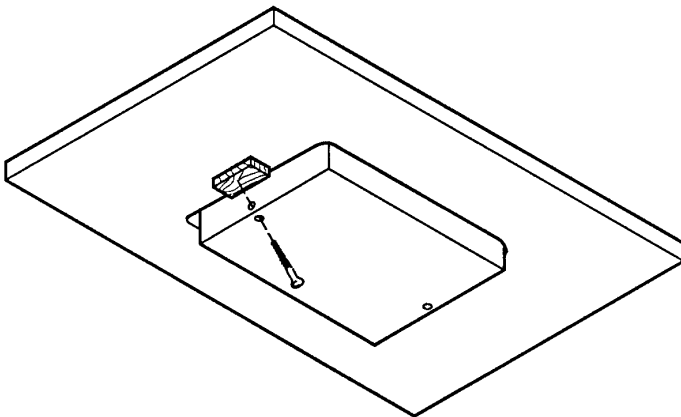
## E. Finger-tighten fasteners to keep appliances in place (continued)

### ***For Cooktops with Side-Mounting Screws:***

- Place *dabs* of Silicone Sealant around the edge of the cooktop and secure in place.
- Do not use the side-mounting screws.

### ***For Cooktops with Hold-Down Screws:***

- Insert a wooden block between the end of the screw and the bottom of the CORIAN® as shown.
- Finger-tighten the hold-down screws.



### ***For Drop-in or Slide-in Ranges:***

- Be sure the range is supported by the cabinets underneath so that all the weight is not on the CORIAN®.
- Treat the cutout properly—SSST. See page 17.

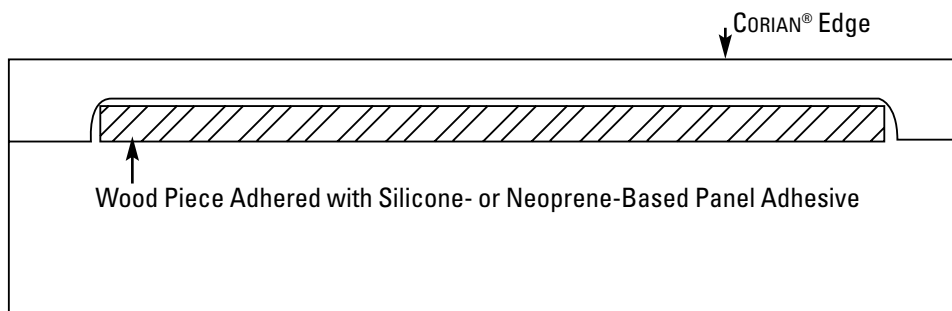
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## F. Trim excess tape around cooktop flange.

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## G. Secure dishwasher flange to adjacent cabinets or to wooden perimeter support strip.

- If possible, mount to the adjacent cabinets; alternately, mount to wooden perimeter support strip.
- For wide CORIAN® edges, rout out a space in back of edge. Adhere a piece of wood with neoprene panel adhesive or silicone. Mount flange to wood. (See drawing.)
- As a last resort, use brass inserts to mount.





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## **Step 12: Inspect and Clean Up**

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### **A. Inspect countertop.**

Finish-sand to remove minor scratches.

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### **B. Check surface appearance.**

If necessary, buff the entire surface with a Scotch-Brite® pad to provide a uniform surface appearance. If you require assistance, call your fabricator.

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### **C. Clean up installation area.**

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### **D. Leave cutout piece for future repair.**

To ensure having color-matched CORIAN® in case of repair, leave largest piece possible somewhere on job in an inconspicuous place.

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## **Step 13: Give Care Instructions to Customer**

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### **A. Demonstrate the resistance of CORIAN®.**

Show your customer how to remove stains caused by a ballpoint pen, burning cigarette, felt pen or similar items. Remove the marks using abrasive cleanser and a green Scotch-Brite® pad. Using a light circular motion, buff the area with a Scotch-Brite® pad and leave this for the customer.

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### **B. Give Care and Maintenance Kit and Video to customer.**



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### **C. Complete warranty information.**

Fill out warranty card with customer information, imprint with certification number, tear off portion for customer and return completed information section of card to your local Authorized Distributor of CORIAN®.

For additional information or assistance, contact  
DuPont CORIAN®  
Wilmington, Delaware 19805  
**1-800-4-CORIAN® (1-800-426-7426).**

**CORIAN®**  
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