19.1 PACKING FOR TRANSPORT

A semifinished Corian® installation is a valuable and fragile investment, and should be treated as such.

STEPS TO COMPLETION:

1. The parts are normally heavy and fragile, so consideration must be given to portability and site access when planning packing for transport.

2. Wrap the parts in bubble sheet, corrugated cardboard or furniture blankets.

3. Brace any cutouts to avoid flexing of the seams and corners.

4. Cushion the floor of your transportation vehicle.

Helpful Hints:

Parts are best transported on edge.

Do not transport any Corian® with parts touching face to face.

Do not allow any part to slide around during transportation.

Do not allow Corian® parts to become overheated in the sun on hot days. Bring all pieces indoors as soon as possible.

Making special transport jigs for transporting parts with shape is common. This acts like a cage around the underside of the bowl, as well as bracing the entire top.

19.2 RACKING FOR TRANSPORT

STEPS TO COMPLETION:

1. Many designs have been made for transportation, but typically carpet-covered vertical piping makes good racking.

2. Some prefer to have a removable "A" frame that they can hoist off the delivery vehicle. This looks like the method used for transporting glass.

3. The racks also should have securing straps.

4. Take two people on the delivery vehicle to get the product onto site in a safe and good condition.

Helpful Hints:

Do not transport Corian® parts horizontally on roof racks. This causes stress, and because of the weight it will bounce and cause breakage.

Much time and skill has been spent in the factory building a first-class product. Good racking is insurance for getting the product to site in good condition.

19.3 INSTALLATION

19.3.1 BASIC PROCEDURES AND CROSS CHECK

On-site installation is equally, if not more, crucial to attain a satisfactory result in terms of the final performance of a Corian® countertop.

1. Upon arrival at the site, recheck site access and power availability. This should have been done during the templating visit.

2. Ensure that cabinets are complete and satisfactorily installed. If not, contact customer and cabinet installer. If necessary, install perimeter support.

3. When satisfied with Steps 1 and 2, unload all parts and check that all materials and tools required are present.

4. Seal off installation area to prevent the spread of dust to remainder of house.

5. Unwrap all parts and check for transportation damage.

6. Lay the complete countertop on the cabinets and trial-fit all parts; double-check that all parts are the correct fit.

7. Double-check that expansion gaps of $^{1}/_{16}$" (1.5 mm) are left against all walls.

8. Make sure that all cutouts are sized properly. Trial fit the cooktop to be sure

9. Check surrounding conditions for anything that could contaminate your work (e.g., dust, other trades).

10. Consider the sequence of on-site seams that will allow best clamping procedure.

11. Before mixing and applying the glue, make sure that the seams are thoroughly cleaned with clear, denatured alcohol.

12. One at a time, complete the on-site seams, making sure they are a perfect fit—this may be how the entire job will be judged.

Note:

Be very careful with the denatured alcohol. It can ruin some cabinet finishes.

13. When seams are completely set, remove excess glue and sand seams to the desired finish. If possible, use a sander equipped with vacuum dust collection.

14. Upon completion, protect finished surfaces from other trades by sticking protective sheeting over the surfaces.

15. Discuss care and maintenance with new owner, including delivery of Care and Maintenance Booklet and videotape.

16. Using screws, secure a 12" x 12" piece of color-matched material to the inside of the sink base cabinet.

Note:
It is the responsibility of the CF/I to submit the proper Warranty information. This can be done at www.warrantycards.com.

Helpful Hints:

Make sure that all techniques are well planned, and that all the tools required are on hand. Tool bins on casters make this easier and faster.

Never lift any Corian® piece that cannot be handled comfortably; when in doubt, seek assistance.

Always ask for help rather than risk a mistake. Good planning means a good installation.

19.3.2

DETAILED STEPS OF COMPLETION

1. Safety

When handling Corian® manually, always use enough people to lift heavy sections using a safe method of lifting (see Safe Handling and Storage chapter).

After unpacking the Corian®, care must be taken to ensure that all nails and screws are removed, and any packaging material is disposed of safely before proceeding with the installation.

Approved safety shoes and goggles should be worn and clothing should be suitable for working with machinery (i.e., no loose cuffs, etc).

Be sure the working area is well ventilated when using adhesives and clear, denatured alcohol.

Caution: Denatured alcohol is flammable. Keep away from sparks and open flames.

Check that all electrical tools are safe to use, and only use sharp router bits and hand tools.

2. Inspection of Corian®

Check that all the pieces to be installed are as per site drawing, the right color, thickness and edge detail.

Inspect all edges for imperfections, observe for excessive warp or any other obvious defects.

Contact the Corian® fabricator if you find any major defect before you proceed.

3. Tools and Materials

Figure 19.3.2.A

Below is a list of items that may be needed in various installations of Corian®.

- safety goggles
- sawhorses and support rails
- straightedges
- various clamps
- extension cord
- various routers
- router bits, sharp and correct size
- random orbital sander
- belt sander, 4” x 24” (100 mm x 600 mm), sanding belts 100- or 120-grit
- electric plane (if desired)
- electric jigsaw (not to be used on Corian®)
- microfinishing films: 100, 60, 30, 15 micron or sandpapers: 80, 120, 150, 180, 220, 320, 400 (open-coat silicone carbide)
- Scotch-Brite® pads, maroon and gray
- caulk gun
- silicone sealant for gluing and caulking
- hot-melt glue with glue sticks having 45- to 60-second open life
- Corian® Joint Adhesive
- carpenter tools (i.e., block plane, chisels, hammer, screwdrivers, knife, tape measure)
- polyethylene sheeting
- drop cloths
- clean cotton cloths
- clear, denatured alcohol or acetone in areas with VOC restrictions
- aluminum conductive tape (from Authorized Distributor of Corian®)
- laminate shims
- plastic release tape
- masking tape

4. General Care of Corian®

Do not flex sheets when lifting or carrying Corian®.

If Corian® is exposed to extreme temperatures, then it must be allowed to reach room temperature, approximately 65–70°F (18–20°C), before commencing work with the material.

5. Preparing Job Site for Installation

Survey site and determine best working options.

Any alteration work may best be done away from the actual installation site.

The cutting and sanding of Corian® creates much dust, and one of the main considerations is to reduce this to the minimum.

All sanders should allow for extraction into a vacuum cleaner.

Use polyethylene sheeting and drop cloths to protect all areas where appropriate.

Use a fan to exhaust dust and fumes to outside. Cover HVAC vents and light fixtures.

6. Preparing Base Units/Cabinets

When replacing old countertops, care must be taken in removing them. All screws, nails and any sharp edges should be removed from the countertops and be disposed of in a safe manner.

The existing base units should be checked for strength and stability. If any remedial work is required to bring them up to standard, it should be carried out at this stage.

All electrical, gas and water appliances should be disconnected/connected by licensed and qualified persons when applicable.

When fitting new base units/cabinets, etc., prepare same as follows.

They should be leveled and plumbed, fixed to each other and then secured to the back wall. The tops of all the cabinets must be within $^{1}/_{8}$" of a flat surface over a 120" run and must be flush with each other.

Corner base units may require wood strips fastened against the back wall to support the Corian® countertop. Some corner cabinets with revolving shelves require additional support in front. See Section 9.5.

All cutouts for sinks and cooktops must have 1" x 4" front-to-back support no closer than 1" (25 mm) and no further than 3" (76 mm) from each side of the cutout. Be sure to allow for corner blocks on cooktop cutouts.

In kitchens, check for dishwasher position. Be sure there is support for

countertop front and back across opening. Supports must pass Span Test. See Section 9.6.

Notch out support strips to allow for seam reinforcement strip.

This must be done to comply with DuPont Requirements.

With kitchen base units that have solid tops (dust covers), the central portion should be removed, leaving a perimeter of approximately 2"–3" (51–76 mm). This will allow heat to dissipate but not weaken the base unit construction. **This is strongly recommended.** However, if the client will not agree to the removal, then the DuPont Warranty will still apply.

Figure 19.3.2.B

If Corian® overhangs any base units without support, 1/2" (13 mm) Corian® should not extend more than 6" (152 mm), and 3/4" (19 mm) Corian® more than 12" (305 mm) unsupported. This is necessary in order to comply with the DuPont Warranty. See Section 9.3 for details.

Determine on the base/cabinet units where the field seams are to be made in the countertops. Protect the inside of the cabinets from Joint Adhesive that may drip inside during seaming.

If countertop perimeter support is not built into the countertop, it must be installed now. See Section 9.2 for details. If the perimeter support is built into the countertop, shim between support strips and cabinets as needed. Then fasten strips to cabinets.

Note:
If cabinets do not provide proper support for the countertop, then support strips must provide all the necessary support. If there is any doubt, perform the Span Test as outlined in Section 9.6

7. Preparing Countertops and Seams

The Corian® countertop can now be trial-fitted onto the prepared base units. All parts may not fit, as some fabricators purposely oversize the countertops for on-site adjustment. Space should always be allowed, as Corian® needs room to expand. Each countertop requires at least 1/16" (1.5 mm) at each wall. However, do not leave gaps any larger than necessary. Larger gaps are unsightly and very difficult to fill with silicone or hide with backsplashes.

This must be done to comply with DuPont requirements.

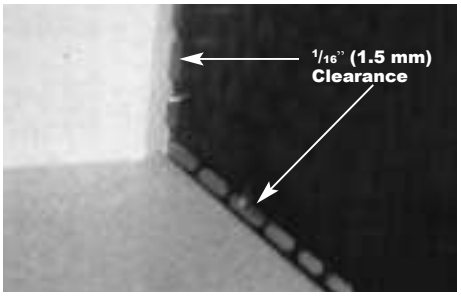


Figure 19.3.2.C

8. Scribing (countertops without coved backsplashes)

Before preparing seams in the countertop, check to see if any scribing to the back or side walls is required.

To scribe the countertop, follow the instructions below.

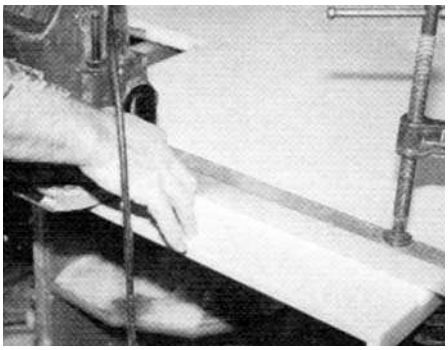
Mark the back edge of the Corian® to the wall using the pattern template made on the job.

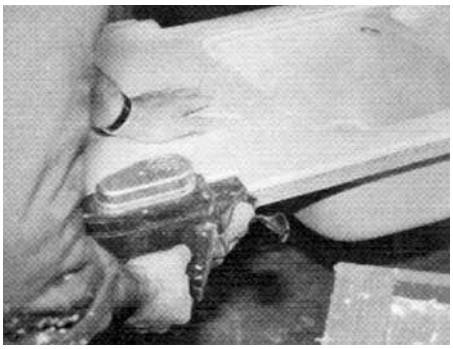
To remove excess material, an electric plane, a router with a straight cutter or a belt sander can be used, whichever is preferable. See Figure 19.3.2.D.

Always sand off any chatter marks, nicks and chips from the back edge and ease any sharp edges. Round over upper and lower edges of countertop behind cooktop cutout to a 1/16" (1.5 mm) radius.

Once the scribe is complete, place laminate shims between the wall and the reverse side of the Corian®. Make the shims long enough so that they can be removed easily. This will give a gap of 1/16" (1.5 mm), which may be caulked with silicone sealant later if needed.

Figure 19.3.2.D





9. Preparing Seams

For seams with front edges not exceeding 2" (51 mm), there are two most commonly used methods as follows.

A. Single-Edge Preparation

Use a router, minimum 2-hp, fitted with a sharp, double-fluted tungsten carbide straight cutter.

Clamp a true straightedge to both sides of the countertop to be adjusted. Measure the base plate of the router to the leading edge of the router bit and adjust to suit the cut accordingly.

Working from left to right, firmly press the base plate of the router against the straightedge and proceed to remove the excess material.

This method of preparing the edge will give a straight, square and parallel cut. A second pass should be made to reduce chatter marks.

B. Mirror Cut Method

This term is used when both edges of the seam are cut simultaneously. The technique is similar to that described in method A; the only change is that both sides of the pieces to be seamed are cut together.

Bring both parts of the countertop parallel to each other, allowing a gap 1/8" (3 mm) smaller than the router bit to be used. Rout the seam by moving from left to right; each edge will be routed simultaneously. This should give a perfect seam every time.

When preparing seams with high coved backsplashes or front edges exceeding 2" (51 mm), some work may need to be done from the underside of the countertop.

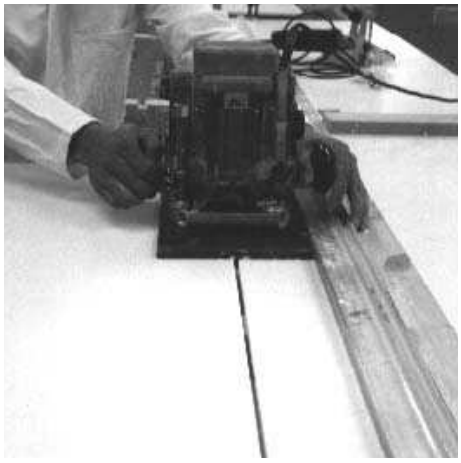


Figure 19.3.2.E

10. Wall Cladding

If wall cladding is to go behind the countertop, this should be done prior to seaming. Before applying Corian®, the wall to be clad should be smooth and free from dirt and grime. Use clear, denatured alcohol and a clean cotton cloth for this purpose.

Corian® can be applied directly against existing wall tiles as long as they are sound and well secured.

All cutouts for electrical sockets, etc., ***MUST*** be made with a router.

All edges should be sanded with 150-grit sandpaper to finish.

Note:
***Do not* fabricate a full-height 1/4" coved backsplash. The chance of fracture at the cove is too great.**

Cut all wall cladding pieces and trial-fit. An expansion space of 1/16" (1.5 mm) minimum should be allowed in order to comply with the DuPont Warranty. Expansion space should be allowed at return walls and at upper and lower cabinets.

Clean the reverse side of the Corian® wall cladding with denatured alcohol and a clean cloth.

Apply silicone to the reverse side of the Corian® sheet in the following manner.

- Apply a continuous bead of adhesive around the sheet of Corian® approximately 1" (25 mm) from the outside edge.
- Then run a bead in an "S" pattern, within the inside area. Any cutouts (i.e., electrical sockets) require a continuous bead of adhesive 1" (25 mm) in from the cutout.
- To eliminate the need for bracing the Corian® wall cladding, hot-melt glue can be applied to the reverse side of the sheet shortly before adhering it to the wall.
- Press the Corian® wall cladding firmly against the wall. Use a straightedge to check for any deviation.

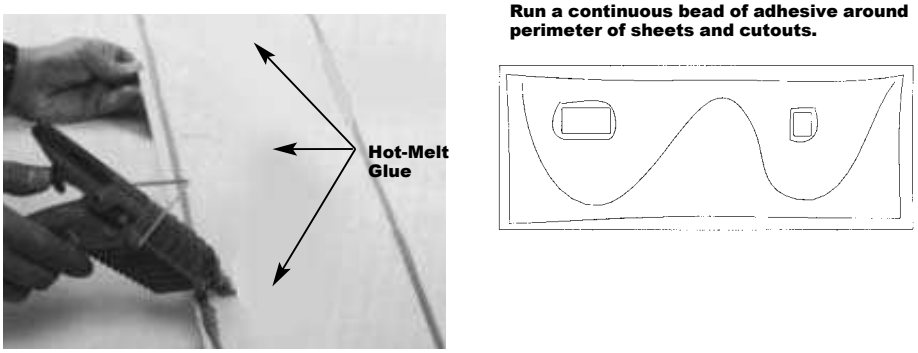


Figure 19.3.2.F

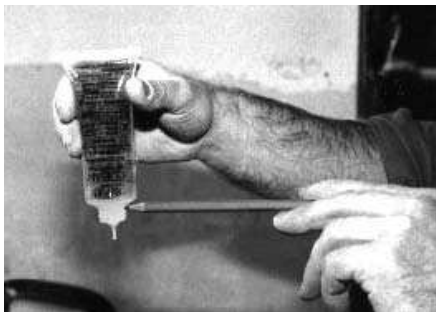
11. Gluing Seams Using Corian® Joint Adhesive

Once the countertop is scribed and the wall cladding is installed behind the countertop, check that all seams are parallel, with no gaps showing when brought together.

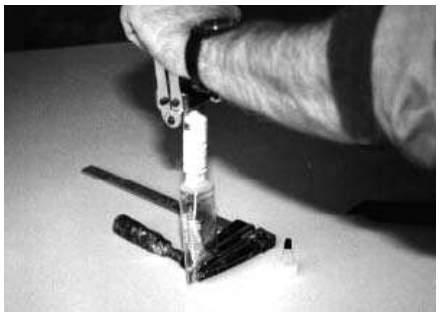
See Chapter 10 for complete details on seaming.

Figure 19.3.2.G

1. Read instructions inside the package and check for color.



2. Turn the clear tube upside down and check that the clear liquid activator reaches to the top of the screw thread. (Not enough activator will affect the performance of the adhesive.)



3. Squeeze Part A into Activator tube.

4. Mix with an orbital sander for 45 to 60 seconds or by hand for 5 minutes.

Decide upon the method to be used to bring the seam together. There are several ways to do this; for example:

A. OEM vacuum clamping systems

B. Wood blocks applied to either side of the seam using hot-melt glue and clamps to bring them together

For reinforced seams, move the countertop apart, exposing the full width of the Corian® reinforcement strip.

Clean the seam and the reinforcement strip with a clean, white cloth and clear, denatured alcohol.

Apply and spread Corian® Joint Adhesive along the full length of the reinforcement strip and one continuous bead at the bottom edge of the seam.

Push the two parts of the countertops together, leaving a $^{1}/_{8}$" (3 mm) gap.

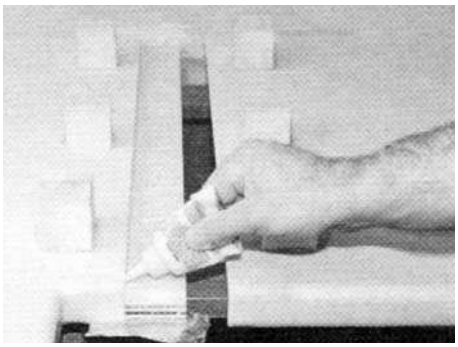
Dam the front edge of the countertop with plastic release tape.

Use remaining contents of the Corian® Joint Adhesive and fill the seam, making sure that sufficient adhesive is used so that when the sheets are brought together, a continuous bead of Corian® Joint Adhesive flows out of the seamed area.

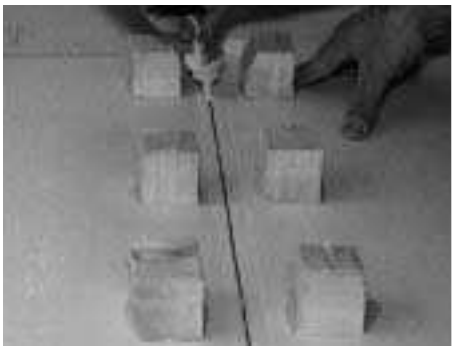
Apply pressure to the seam with the method you've chosen, checking for alignment.

Figure 19.3.2.H

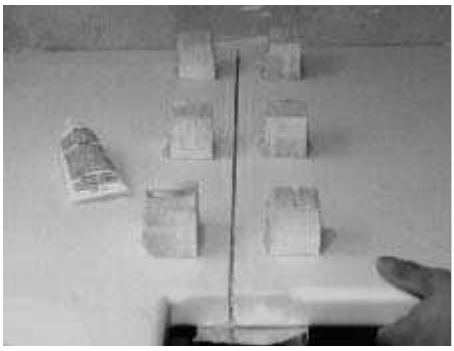
1. Clean the seam with clear, denatured alcohol and a clean, white cloth.



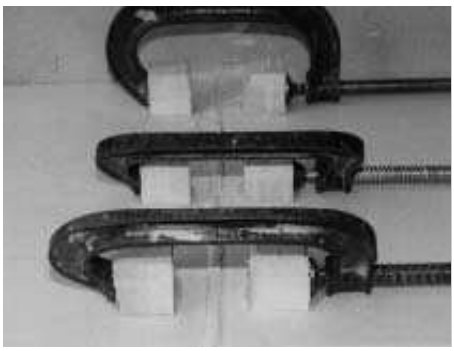
2. Apply the Corian® Joint Adhesive to the reinforcement strip.



3. Push the sheets toward each other, leaving a 1/8" (3 mm) gap. Use the rest of the Corian® Joint Adhesive to fill the seam.



4. Push the sheets together.



5. Clamp up without overtightening.

Allow the Joint Adhesive to cure for about 45 minutes. To check if the adhesive has cured, press against the seam with a fingernail. If any indentation is apparent, then it should be left for an additional period of time.

Helpful Hints:

For higher productivity, turn pieces facedown on a flat surface covered with a release agent to make seam. With top upside-down, the deck seam, front edges, the sink or lavatory, any reinforcement blocks and the seam reinforcement can be glued on at the same time.

12. Finishing Seam

Remove clamping device, or any other materials used to tighten the seam. Spray blocks with denatured alcohol to loosen hot-melt glue.

If blocks were used, remove the hot-melt glue deposits with a wide, sharp chisel and clean off the surface.

The best method to remove the excess adhesive is with a router on skis. To minimize dust on the job use a sharp, low-angle block plane. Remove the excess Corian® Joint Adhesive as close to the back wall as the block plane will allow. The remainder of the excess should be removed with a wide, sharp chisel, making sure not to damage the surface of the Corian®.

Figure 19.3.2.I

Clean off debris and then sand in the following manner:

A. Random Orbital Sander

Use a random orbital sander on “direct drive” and equipped with vacuum dust collection with a 100-micron sanding disk to take down the excess Joint Adhesive flush to the surface and remove fabrication scratches.

Clean the surface with a damp, clean cloth to remove any sanding residue. Change to 60-micron sanding disk and sand the seam area once again.

Clean off any sanding debris. Complete the finishing with 3M maroon Scotch-Brite® pad to give a matte finish. Other gloss levels can be reached by following steps listed in Section 18.

Figure 19.3.2.J

B. Belt Sander

Note:
Do not use belt sander to remove excess adhesive.

If seam is out of alignment, as a last resort use a belt sander with a 4" x 24" (100 x 600 mm) wide base and 120-grit silicone carbide paper.

When using a belt sander, hold it flat to the surface and work beyond the seam, continually moving to avoid overheating and gouging.

Take frequent breaks to check progress and to allow surface to cool. Checkbelt for clogging. Do Not overheat surface!

Great care must be taken not to gouge the Corian® surface during this process. The belt sander requires an extractor facility, allowing extraction directly into a vacuum, as this procedure creates excessive dust. A belt sander will leave the surface of the Corian® with quite heavy sanding marks. The sanding procedures stated above should be used to eliminate this.

Continue the same procedures for all remaining seams.

Helpful Hint:

Use a sanding system that features a vacuum dust collector to control dust on the job.

To minimize finishing time, use the finest abrasive possible to start finishing. Skip the rougher abrasives if they are not needed.

13. Fixing Corian® Countertops to Base/Cabinet Units

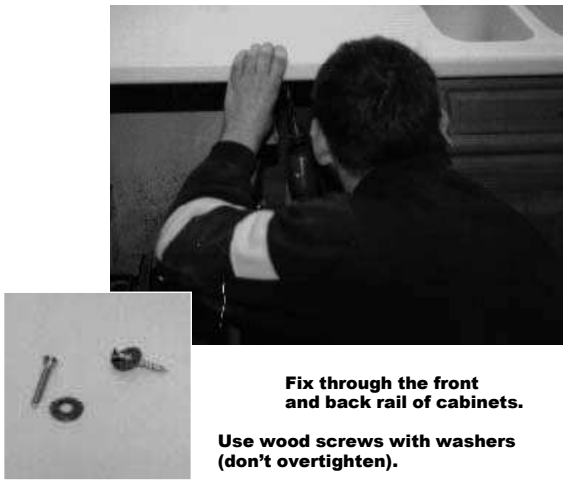
There are several ways to secure countertop to cabinets. The two most popular ways are silicone adhesive or screws. If Corian® is set directly onto perimeter support, use small dabs of silicone such as GE 1200 Series sealant, no closer than 12" (305 mm). If wood support is attached to underside of countertop with silicone, screws can be used as follows:

Drill holes in the back and front cabinet rail, using a high speed drill about 1/8" (3 mm) larger than the screw to be used to fix the countertop down to the base/cabinet units.

Select screws that will not pass through the supports, and screw into the support rails, taking care not to overtighten the screw.

Screwing directly into Corian® is not allowed and cause the Corian® to crack.

Figure 19.3.2.K



14. Wall Cladding Fitting on Top of Countertop

If wall cladding or square backsplash is to fit on top of the Corian® countertop, now is the time to fix it. For wall cladding, follow the previous instructions in this Chapter. (see Section 19.3.2 #10 - Wall Cladding). For square backsplashes, check and scribe for proper fit, allow for expansion.

Clean both the backsplash and countertop with clear, denatured alcohol and a clean cloth.

Place a continuous bead of DuPont color-matched sealant the full length of the bottom edge of the backsplash. See Fig 19.3.2 L

Turn the backsplash over and press against the countertop and the back wall using a rolling action. Any sealant which is smeared onto the backsplash should be removed with a sharp, wide chisel, followed by a clean, white cloth dampened with clear, denatured alcohol. Another method of fitting square backsplashes is to use Corian® Joint Adhesive. This would be applied in the normal manner and residue cleaned as previously stated.

Caulk inside corner between backsplash and countertop using "push" method if desired.

Figure 19.3.2.L

DuPont does not recommend that wall cladding be adhered to backsplashes or countertops using Joint Adhesive.

DuPont Sealant, that allows for possible future replacement of countertop, should be used.

15. Faucet Holes

Faucet holes can now be made if previously not done by the fabricator. This can be achieved by using a router with a sharp, straight, carbide-tipped router bit and a template, or by using a hole cutter.

It is essential that the top and bottom edges be sanded or routed to a 1/16" (1.5 mm) radius to avoid stress risers.

16. Cooktop Cutouts On-Site

DuPont highly recommends that cooktop cutouts be done by the fabricator in the factory, as complicated techniques make it difficult for the installer to carry out the work on-site. In some cases, a partial cutout is made in the shop and completed on-site. If, however, the installer has no option and finds that this work has to be done, then the following procedures must be followed.

The cutout must be done with a router and a sharp $^{3}/_{8}$" to $^{1}/_{2}$" (10 mm to 12 mm), straight, carbide-tipped cutter. This is the only recommended tool for this procedure. Be sure corners of cutout are properly reinforced and shaped. See Section 7.4.

Great care must be taken to sand all inside edges, removing any chatter marks. The top and bottom edges must be routed or sanded until they are rounded to minimum 1/16" (1.5 mm) radius and smooth.

Particular care must be taken when sanding the corners, as this is a vulnerable area. Allow a minimum of 1/8" (3 mm) gap between the cutout and the electrical appliance. If more space can be given, then do so.

Apply .004" aluminum conductive tape around the cutout. The tape should be applied so that it extends 1/4" (6 mm) below countertop and across top surface so that entire flange of cooktop rests on the tape.

All four corners should be completely covered with the tape, making sure all edges overlap.

To Install Cooktop:

- Center cooktop in cutout.
- Cushion clamps or hold down bolts with small pieces of wood. Snug clamps or bolts firmly.
- Cooktop may be fastened using dabs of silicone at each corner.
- Trim excess aluminum back to edge of cooktop, being careful not to score the countertop.

Caution: Do not screw cooktop down. Do not overtighten mechanical fasteners.

17. Inspection and Cleanup

If not done previously, sand entire top with a random orbital sander and a 60-micron sanding disk. Wash top clean. Then buff the entire surface with the appropriate Scotch-Brite® pad to provide a uniform surface appearance.

Use screws to secure the color match piece provided by the fabricator to the inside of the sink base cabinet.

Clean up the site thoroughly, removing all excess materials.

Figure 19.3.2.M

Buff the surface with a Scotch-Brite® pad.

Note:
If countertop is made with a Lustra Series color, be sure to mark the "direction" of the material on the bottom of countertop and on the color-match piece.

18. Care Instructions Given to Customer

If possible, customers should be shown how to care for their new countertop and, if needed, the Corian® sink. Leave the "Corian® Care Kit" with your customer.

19. Warranty Information

If you have Internet access, the residential warranty may be registered with DuPont by logging in to www.Salesforce.com to enter the information. If you do not have Internet access or are not registered with Salesforce.com, call

(800) 426-7426 Prompt 2 (Owners), then Promt 1- Warranty Registration. The person answering can help you either get properly registered or -provide you an alternative way to register the Warranty.

Scotch-Brite® is a trademark of 3M Company, USA.