C O R I A N ®

CORIAN®
SURFACES
Created For Life.™

DU PONT®

Contents

Introduction

CORIAN® is a solid material. Like most woods, 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, unusually repairable, and can be cleaned easily with abrasive cleansers.

This guide…

- Gives basic guidelines for working with CORIAN® when installing custom wet walls.
- Suggests a basic sequence of steps, which applies to most wet wall installations of CORIAN®.
- Presents step-by-step directions for completing each phase of the basic sequence.
- Offers suggestions and recommended techniques for customizing installations of CORIAN®.
- Lists auxiliary products that can be used when working with CORIAN®.

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 outlining health and safety information are available through your Authorized Distributor of CORIAN®.

Safe Practices for Lifting and Handling CORIAN®

- To lift CORIAN® on pallets, 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 leather 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.

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.

Storage and Packing

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 recommended packing materials:

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

Packing to Ship

When a common carrier is transporting CORIAN®:

- Pack as described under "Packing to Deliver."
- Add strong wooden packing crate and nylon straps.
- Label: **FRAGILE—HANDLE WITH CARE.**

Selection and Inspection of CORIAN®

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

- Use $\frac{1}{4}''$ (6 mm) CORIAN® for **vertical** applications **only.**
- Use $\frac{1}{2}''$ (13 mm) or $\frac{3}{4}''$ (19 mm) CORIAN® for **horizontal** applications or for vertical areas where frequent impact is likely, such as cargo elevator walls. **Do not use $\frac{1}{4}''$ (6 mm) CORIAN® for 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. Inspect for color match under lighting conditions similar to those at the installation site.
- Inspect edges for imperfections or chipping.
- If the material appears defective, contact your Authorized Distributor of CORIAN® prior to use.

Tools and Equipment

Use the following guidelines when selecting tools and equipment for installations of CORIAN®.

Routers and Bits

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 fabrication time to achieve properly finished details and edges.

For these reasons, the router is the recommended tool for a wide variety of jobs and is the only tool recommended for cutouts. Use a 1¾ HP (1.3 kW) router with ⅜″ (9 mm) carbide-tipped, single-flute bit and ½″ (13 mm) shank.

For decorative edges:

Use a 1¾ HP (1.3 kW) router with ⅜″ (9 mm) carbide-tipped, decorative bit and ½″ (13 mm) shank.

Orbital Sanders

Orbital sanders used with CORIAN® should be either electric or air-driven, operate at **10,000** orbits per minute or more. 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.

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 caulk for lines that will contact painted or wallpapered surfaces.

Hot-Melt Glue

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

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

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

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

Saws and Blades

Circular saws used for cutting CORIAN® should:

- be heavy-duty: 10 amp or better.
- have a **7½″ (19 cm)**, triple-chip blade, with 40 to 60 teeth, made of C-4 grade tungsten carbide.
- have hook angle blades from **-5 to +10** degrees.
- have a quiet blade with small gullets, brass plugs and heavier stock.
- be used with straightedge for best results.

Trim saws with fine-tooth paneling blades can also be used for cutting sheets.

Blades should be sharpened regularly with a 400- to 600-grit grinding wheel.

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 rough sanding, use 100- to 120-grit paper
- For finishing, use 150-grit or finer paper, then use the maroon Scotch-Brite® under an orbital sander to blend all exposed surfaces to the same look. Finer finishes can be achieved by using microfinishing films.

Tools NOT to Use with CORIAN®
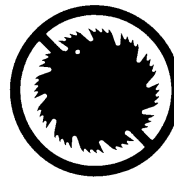
The following tools should **not** be used on CORIAN®.

- Saber saws
- Hacksaws
- Ripping or combination blades
- Auger bits
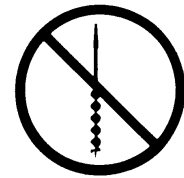
Saber saws   Hacksaws   Ripping or   Auger bits
                                       combination blades

Tips for Working with CORIAN®

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

Cutting

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

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

Allow CORIAN® brought to the shop from a different storage area to come to workshop temperature before cutting.

Cleaning

Use a clean, white cloth and denatured alcohol (i.e., shellac thinner, stove alcohol) to clean CORIAN®.

Do **not** use rubbing alcohol, lacquer thinner or other solvents which leave an oily film that can interfere with adhesion.

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, as will any writing or marks left on the backside of sheets of CORIAN®. 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 $\frac{1}{8}''$ (3 mm) expansion space on all sides of the insert.
- When preparing CORIAN® for installation, allow $\frac{1}{8}''$ (3 mm) expansion space for every 10 feet (305 cm) of CORIAN®.
- When adhering CORIAN®, use a *flexible* adhesive such as silicone or Panel Adhesive for DuPont CORIAN®.
- Before screwing through CORIAN®, drill a hole that is $\frac{1}{8}''$ (3 mm) wider in diameter than the screw width.

CAUTION

Do not screw directly into CORIAN®.

Cracking

CORIAN® is vulnerable to stress cracking when:

- support surfaces are not level or plumb.
- 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.
- butt seams and joints are not uniformly filled with adhesive.
- escutcheon plates are overtightened.

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.

When NOT to Install CORIAN®

Water Problems

When your problem is leaking or excessive moisture, CORIAN® is **not** a solution.

CORIAN® absorbs moisture over a long period of time. When adhered to, or placed directly over damp or moisture-retaining subsurfaces, CORIAN® will absorb the moisture and can warp or separate from the subsurface.

Therefore, if vapor gaps cannot be provided to control moisture and guarantee a clean, dry subsurface, CORIAN® cannot be used on the wall.

High Heat or Steam

Do not use CORIAN® in rooms where excessive temperature and/or steam exist, such as in steam baths or saunas.

No Support

Like paneling, CORIAN® is a surface material, not a support material. When making constructions that will support weight—hot tub decks, stairs, shelving, etc.—**lay ½″ (13 mm) or ¾″ (19 mm)** CORIAN® over an appropriate weight-supporting substructure such as a wooden frame or a series of well-placed brackets.
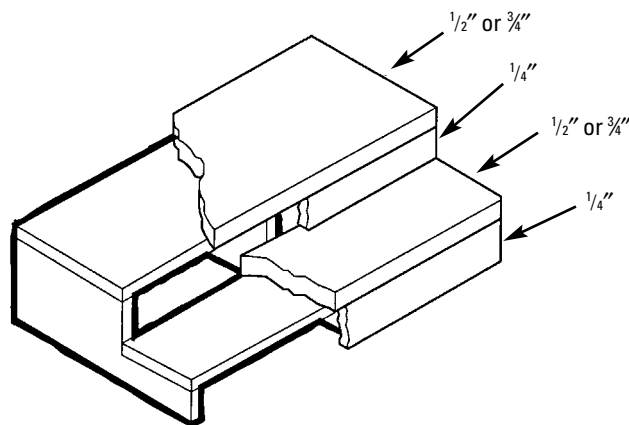
Hard-Seaming Wet Walls

Project Profile: This treatment allows you to create smooth, one-piece back and side walls by using Joint Adhesive to seam together ¼″ sheets of CORIAN® that are wider than 30″. There are two methods that can be used to achieve this "no seam" appearance:

• Butt joint method

• Reverse batten method

Skill Level: Intermediate.

Fabrication Time: 1½ hours in shop per hard seam.

Installation Considerations: Both methods require two people to handle and install hard-seamed sheets on the job site. The butt joint method eliminates the need to caulk and detail (batten strips or easing) back and side wall seams on the job site. The reverse batten method strengthens the seam for easier handling during transportation and installation. It also provides greater resistance to cracking.

Advantages:
- Gives clean, one-piece look.
- Reduces maintenance.

CORIAN® Strip Attached with Joint Adhesive

Hard-Seam Batten

¼″ CORIAN®

Hard Seam

Hard Seam at Back Wall

Bead of Silicone Behind Seam

Bead of Silicone Behind Seam

Gypsum Drywall or Tile

CORIAN®

1″ (min.) Bead of Silicone Sealant Entire Length of Joint
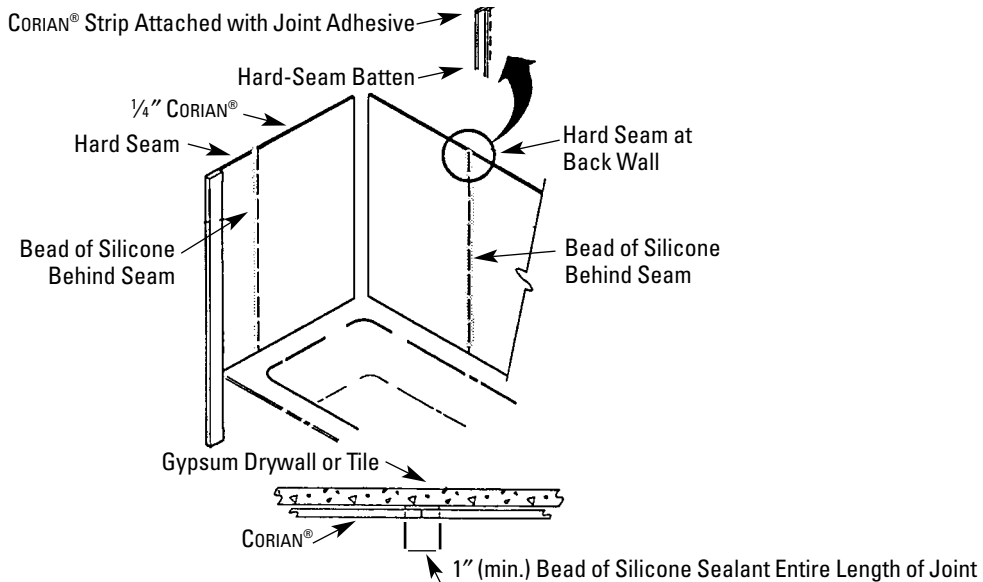
Procedure:

There are two methods that you can choose from to fabricate and install a solid-seam wet wall of CORIAN®.

Method #1—Butt Joint

1. Using Joint Adhesive, seam together ¼″ (6 mm) sheets of CORIAN® for the back and side walls in the shop. Follow the same procedure you would use for making island or peninsula seams for kitchen countertops. Refer to the Fabrication Manual for details.

2. When transporting the seamed walls to the job site, use these precautions as a guide to prevent joint failure:
   - Attach a sheet of plywood to the back of the seamed CORIAN® to facilitate transporting.
   - Do not handle large, seamed pieces single-handedly; two installers are required.
   - Carry seamed pieces vertically whenever possible.
   - Transport flat in a truck or van; glass racks are useful, if available.
   - Use 2×4 (50 mm $\times$ 100 mm) frames to protect the pieces during transport.

3. When installing hard-seamed wet walls, two people are required. Glass suction cups are helpful.

4. Be sure the ends of the joint are sanded smooth to prevent stress risers from forming.

5. Place a heavy bead of Silicone Sealant on the backside of the sheet, directly over the hard seam, before applying the sheets to the wall. Should the seam break apart, this is a moisture barrier to prevent water damage before the repair is completed.

NOTE

Do not locate control valves through seams because CORIAN® is vulnerable to stress cracking when escutcheon plates are overtightened.

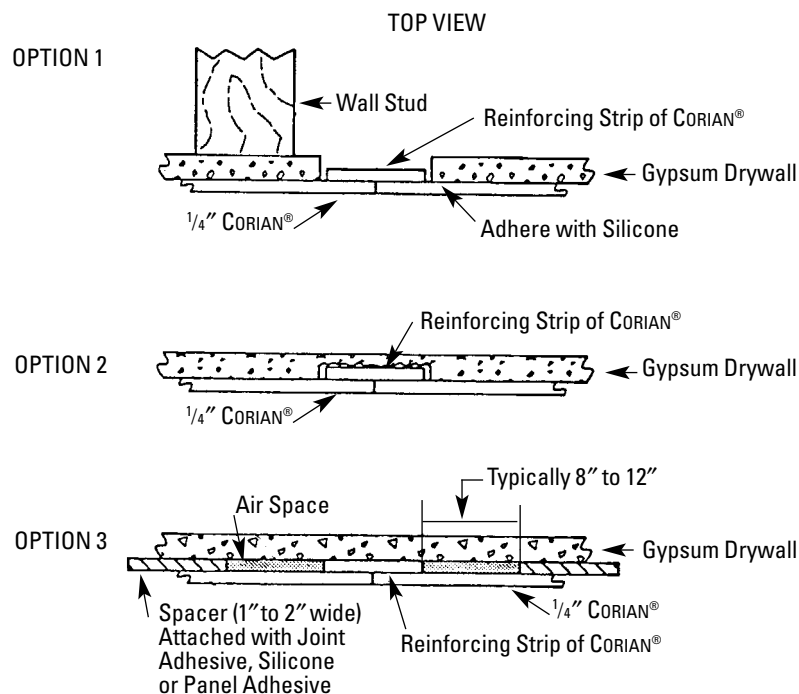6. Finish the installation by enhancing with a corner treatment.

All *field* hard seams require a reverse hard seam batten to assure alignment and a watertight fit. This is necessary because a silicone bead cannot be applied behind a field hard seam.

To create a reverse hard seam batten, notch the gypsum board and attach a CORIAN® strip to the underside of the wall panel before installation.

Method #2—Reverse Batten

1. Reinforce the seam by applying a strip of $\frac{1}{4}''$ (6 mm) CORIAN® to the backside of the sheets of CORIAN®. Be sure to:

- Use a strip similar in color to the sheets.
- Sand the strip to remove chips and nicks.
- Seam the sheets face down on a flat surface.
- Attach the reinforcing strip to the seam with Joint Adhesive during seaming to help protect the seam during finishing. Be sure to use enough adhesive to prevent gaps.
- Use clamps to pull the seam together.
- Use weights to hold the strip to the sheets.

2. Prepare the drywall using one of the options shown below:

- Option 1—Cut away the drywall to fit the reinforcing strip.
- Option 2—Cut a shallow groove or trench in the drywall.
- Option 3—Use spacers to position the CORIAN® away from the wall.

3. Install the reinforced wet wall panel by attaching it to the substrate, using one of the methods illustrated below.

4. Follow all the other procedures described on pages 28 to 34 of this guide.

TOP VIEW

OPTION 1

Wall Stud — Reinforcing Strip of CORIAN® — Gypsum Drywall — $\frac{1}{4}''$ CORIAN® — Adhere with Silicone

OPTION 2

Reinforcing Strip of CORIAN® — Gypsum Drywall — $\frac{1}{4}''$ CORIAN®

OPTION 3

Typically 8″ to 12″ — Air Space — Gypsum Drywall — Spacer (1″ to 2″ wide) Attached with Joint Adhesive, Silicone or Panel Adhesive — Reinforcing Strip of CORIAN® — $\frac{1}{4}''$ CORIAN®

Wet Wall Installation of CORIAN®

This shows the basic step-by-step procedure for most wet wall installations of CORIAN®.

The rest of the guide provides detailed directions for completing each step shown on the chart and for handling special situations.

1. Plan the Job:	2. Inspect and Prepare the Installation Area:	3. Set Up the Work Site:
• Check stock • Cut large sections • Collect tools • Collect accessories • Collect safety and cleaning equipment	• Correct subsurface? • ½″ (13 mm) gap? • Tub secure? • Sign of moisture? • Plumbing installed? • Prepare subsurface	• Sawhorses and rails • Dust control • Set out tools
4. Measure and Cut CORIAN®:	5. Shim, Trial-Fit and Mount:	6. Trim, Caulk and Finish:
• Measure area • Locate accessories, plumbing, windows • Mark CORIAN® • Recheck measures • Cut CORIAN®	• Shim and trial-fit • Clean CORIAN® and installation area • Apply adhesive • Place, press and vent • Apply hot-melt glue or brace	• Apply trim • Mount accessories • Caulk • Clean up • Instruct customer

Step 1: Plan the Job

- • Check stock
- • Cut large sections
- • Collect tools
- • Collect accessories
- • Collect safety and cleaning equipment

Naturally, the amount and kind of planning you should do varies with the size and complexity of the job. More thorough planning is needed for large volume commercial installations or for installations that will be done far from your shop.

Planning Guide

The following general guidelines may help you organize each job.

- • Check your stock for damage and for color match. Follow the directions for "Selection and Inspection of CORIAN®" in the **Introduction** section of this guide.
- • Based on the job specifications, do as much cutting and sanding as possible in the shop. You can precut sheets as well as cut and rabbet trim pieces.
- • When planning the location of recessed accessories:
  1. Do not install in seams or battens.
  2. Place near a stud and near the center of the sheet of CORIAN®.
- • Include a few extra pieces of CORIAN® in case the material is damaged during installation.
- • Use the "Tools/Materials Checklist" on the next page to check that you have the tools and materials you will need.

Tools/Materials Checklist

❏ Accessories

❏ Safety glasses, shoes, gloves, ear protection and masks

❏ Sawhorses and three $2 \times 4 \times 8'$ (50 mm $\times$ 100 mm $\times$ 240 cm) support rails

❏ Straightedges and templates

❏ C-clamps

❏ Router with sharp $\frac{3}{8}''$ (10 mm) diameter carbide bit and template guide; minimum $1\frac{3}{4}$ HP (1.3 kW) for cutting $\frac{1}{4}''$ (6 mm); 2 HP (1.5 kW) for $\frac{1}{2}''$ (13 mm) and $\frac{3}{4}''$ (19 mm) CORIAN®

❏ Circular saw with triple-chip, C-4–grade tungsten carbide blade (40–60 teeth)

❏ Electric drill and bits

❏ Orbital (finishing) sander, minimum 10,000 orbits/min.

❏ Random orbital sander

❏ Belt sander for scribing

❏ Sandpaper: 100- to 120-grit for rough sanding; 150-grit or finer for finishing

❏ Scotch-Brite® pads (maroon and green)

❏ Caulking gun

❏ Drop cloths for dust control

❏ Shim material (laminate strips or popsicle sticks)

❏ Panel Adhesive for DuPont CORIAN® or clear silicone

❏ Color-matched Silicone Sealant for CORIAN®

❏ Denatured alcohol (stove fuel or shellac thinner)

❏ Clean, white rags

❏ Hot-melt glue gun and glue sticks

❏ Care and Maintenance Kit and Video

❏ Bracing materials (for ceilings and/or when hot-melt glue will not be used)

❏ Warranty Card

Inspection Guidelines

If You Find:	You Should:	Because:
Any subsurface except: • moisture-resistant drywall • tile backer board • marine-grade plywood • ceramic tile	Stop work until the customer replaces the wall. OR If the subsurface is cinder block, concrete or masonry, see the next page.	Installing CORIAN® over other subsurfaces can result in moisture damage, separation of CORIAN® from wall and warping.
No ½″ (13 mm) gap between the top of the tub flange or the top of the shower pan and the subsurface.	Cut a ½″ (13 mm) gap.	Installing CORIAN® without the gap can result in warping from wicking of moisture between subsurface and CORIAN®.
The tub is not secured properly.	Stop the installation until the customer has the tub anchored securely.	If the tub is not well secured, it will shift, making it impossible to fully seal the surround against leaking, or may result in damage to CORIAN® or tub.
Plumbing is not installed.	Stop the installation until the plumbing is installed *and* tested.	Major plumbing work cannot be done after CORIAN® is applied. Using untested plumbing may result in the need to reinstall the CORIAN®.

Step 2: Inspect/Prepare Installation Area

- Correct subsurface?
- ½″ (13 mm) gap?
- Tub secure?
- Sign of moisture?
- Plumbing installed?
- Prepare subsurface

Inspection

Use the guidelines on the preceding chart to inspect the area. In addition, follow these directions for working with various types of installations.

For installations over regular drywall, plywood or paneling

Replace these subsurfaces with one of the following acceptable materials— moisture-resistant drywall, tile backer board or marine-grade plywood. Use the chart on the previous page as a guide when inspecting the installation area.

For installations above grade

Build a moisture-resistant barrier **before** installing CORIAN® over interior:

- cinder block
- concrete
- masonry

Stud out these walls with 2 × 4's (50 mm × 100 mm) and install a smooth, dry subsurface of moisture-resistant gypsum board.

For installations on or below grade

Never install CORIAN® directly on exterior or interior masonry, concrete, cinder block or any other wall construction that is or may become damp. Even the use of studding and moisture-resistant gypsum board as a subsurface does not provide an effective moisture barrier.

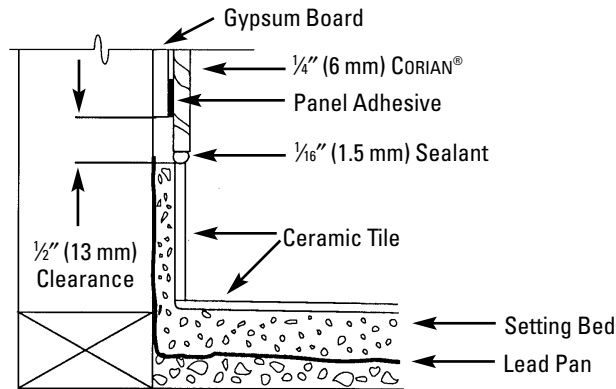### *For installations over ceramic tile*

- Remove the bottom row of tile to check for dampness in the subsurface.
- Cut a $\frac{1}{2}''$ (13 mm) ventilation gap in the subsurface revealed when the bottom row of tile is removed.
- Check for loose tiles or other signs of leaking or moisture.

  If you find loose tiles or dampness: Stop the installation until the problem is corrected.

- If the tile does not cover the whole area that CORIAN® will cover, build up the area without tile to provide uniform support.

  If there are gaps in the subsurface: Build out under the CORIAN® using either moisture-resistant drywall, tile backer board, marine-grade plywood or scraps of CORIAN®.
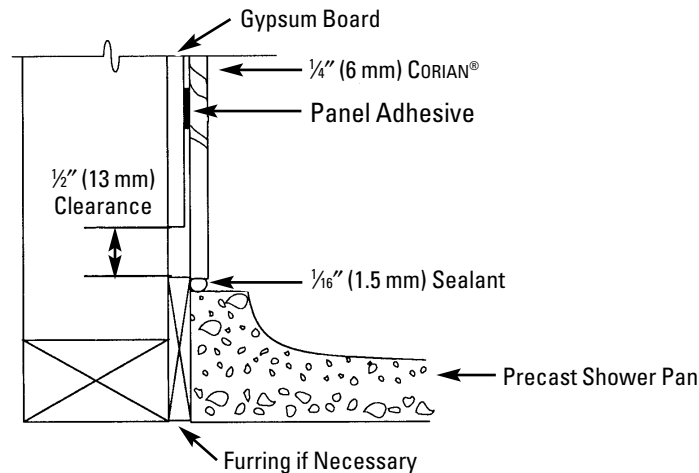
- Spread tan-colored adhesive over sharply contrasting color tiles.

Gypsum Board
¼″ (6 mm) CORIAN®
Panel Adhesive
¹⁄₁₆″ (1.5 mm) Sealant
Ceramic Tile
½″ (13 mm) Clearance
Setting Bed
Lead Pan

When installing shower enclosures

- Check that there is a $\frac{1}{2}''$ (13 mm) clearance between the uppermost edge of the shower pan or setting bed and the subsurface. The clearance must be there, regardless of how high the pan extends up the side of the wall.
- Moulded shower pans, precast terrazzo pans or ceramic tile with curbs are acceptable flooring for shower enclosures made of CORIAN®. If no such flooring is present, add base moulding made of CORIAN®.

Never install CORIAN® so that it rests on the floor of the shower pan.

Gypsum Board
¼″ (6 mm) CORIAN®
Panel Adhesive
½″ (13 mm) Clearance
¹⁄₁₆″ (1.5 mm) Sealant
Precast Shower Pan
Furring if Necessary

• **Control dust.** Hang plastic drop cloths over doors, cover vents and use fans to exhaust dust and fumes.

• **Protect the tub or floor.** Minimally, you should pad the bottom of the tub or shower enclosure with material like carpeting.

For better protection of tubs, cut a wooden lid to the size of the tub. Allow at least $\frac{1}{2}''$ (13 mm) around the perimeter of the lid for the sheets of CORIAN® to slide down behind the lid and onto shims set on the tub flange.

½″ (13 mm)
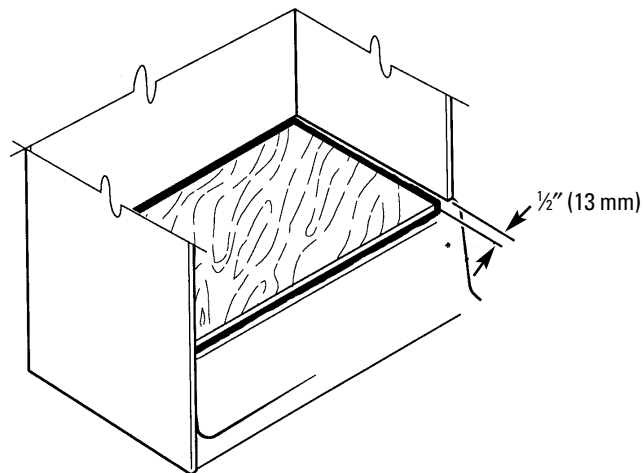
- **Clean the wall.** Use a cloth moistened with denatured alcohol. This avoids wetting the wall with water and provides the clean, dry surface needed for good bonding.

CAUTION

Follow manufacturer's safety instructions for using denatured alcohol.

Preparation: For Accessories

- **Prepare for accessories.** Follow these guidelines to prepare for installing accessories. There are guidelines for installing recessed accessories, surface-mounted accessories and accessories over tile.

To prepare for installing recessed accessories

- Check that the accessory will be near, but not over, a stud, and near the center of the sheet of CORIAN®. **Never** place recessed accessories in seams or battens.

- Make a cutout in the subsurface to receive the accessory.

To prepare for installing surface-mounted accessories

- Mount buildup blocks behind the subsurface and between the studs in each place where you will install a surface-mounted accessory. These buildup blocks will give you a solid backing to screw into.
- Find a location to install grab bars that is over a strong and substantial support. If you cannot locate grab bars over studs, mount substantial backing behind the subsurface to provide a secure anchor.

To prepare for installing accessories when the installation of CORIAN® is over ceramic tile

Follow the directions given for recessed and surface-mounted accessories. In addition:

- Remove existing accessories.
- Thoroughly clean and rinse the tiles using a commercial tile cleaner. Tiles must be clean, dry and free of soap residue before installing CORIAN® to ensure adhesion of panel adhesive and hot-melt glue.

NOTE

It is not necessary to roughen tiles before applying CORIAN®.

Step 3: Set Up Work Site

- Sawhorses and rails
- Dust control
- Set out tools

Set up sawhorses and put 2 × 4 (50 mm × 100 mm) rails on the sawhorses to support the sheets of CORIAN®. Since ¼″ (6 mm) CORIAN® is more flexible than ½″ (13 mm) or ¾″ (19 mm) CORIAN®, place at least one additional 2 × 4 (50 mm × 100 mm) lengthwise for added support.

When possible, do your cutting outside the building to reduce dust accumulation. You may wish to lay drop cloths under your cutting area to facilitate cleanup of dust from CORIAN®.

Step 4: Measure and Cut CORIAN®

- Measure area
- Locate accessories, plumbing, windows
- Mark CORIAN®
- Recheck measures
- Cut CORIAN®

A. Measure and mark the installation area.

There are two keys to accurate measurement for wet walls of CORIAN®:

1. Finding the lowest point on the tub or on the surface on which the CORIAN® will rest

2. Establishing level and plumb lines against which all measurements are made
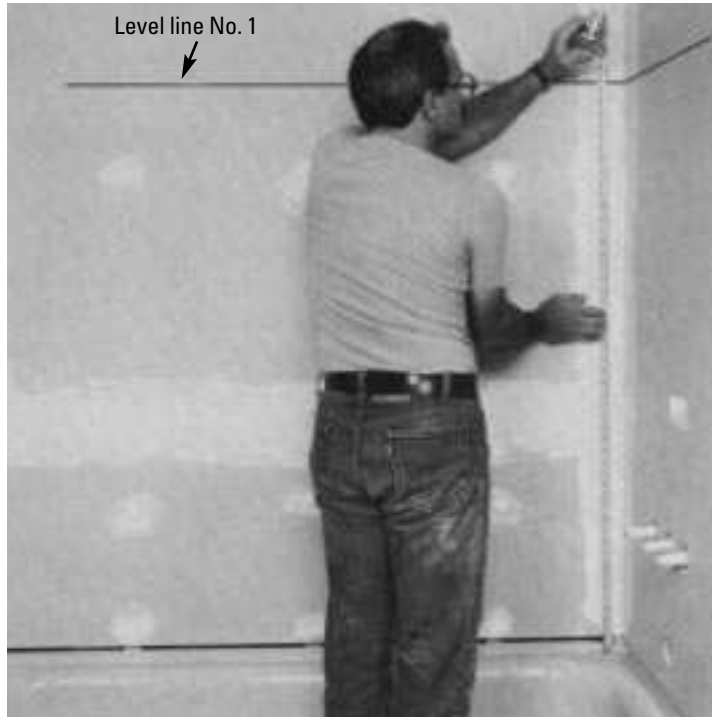
Follow these directions to mark the installation area for measuring.

- **Draw level line No. 1.** Place a carpenter's level at eye height to mark the line.
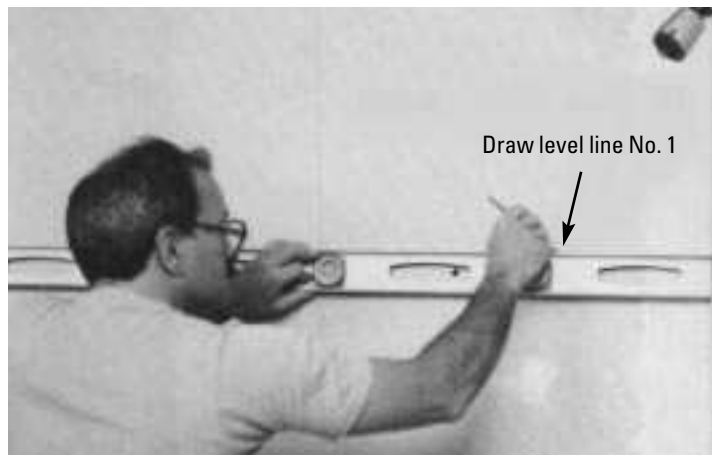
Draw level line No. 1

- **Find the lowest point.**

  Measure from level line No. 1 down to the tub or bottom of the wall of Corian®, going all around the enclosure.

 Find and mark the lowest point to which the wall of Corian® will reach.

Level line No. 1

Mark lowest point

- **Draw level line No. 2.**

  Measuring from the lowest point, mark the height of the sheet of Corian®. For instance, when using 72″ (183 cm) panels, measure and mark 72″ (183 cm) from the lowest point.

  Place a carpenter's level on your mark and draw level line No. 2 from that point. Level line No. 2 will be used as a guide later to exactly match the height of each sheet of Corian®. The remaining sheets will be cut down to fit each section of the enclosure.

Draw level line No. 2
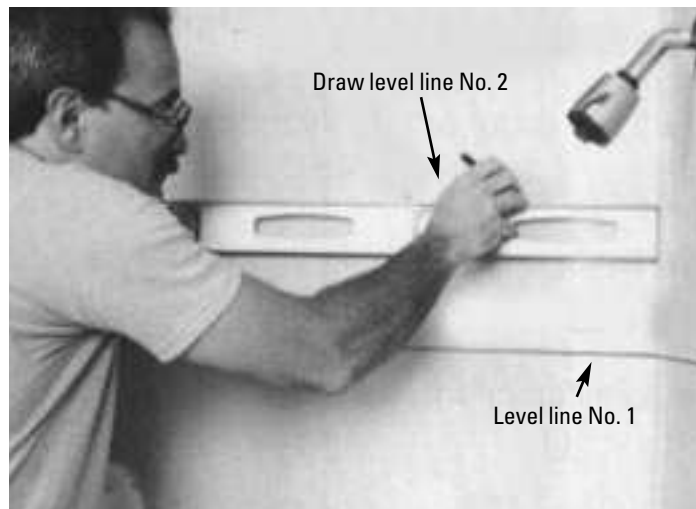
Level line No. 1

- **Draw plumb lines.** Plumb lines are used to find out-of-plumb corners.

  Draw a plumb line on each section of the installation area. Plumb lines should be at 90° angles to the level lines.

B. Measure CORIAN®.

When measuring for each sheet of CORIAN®, you must determine length and width of the walls, as well as placement and dimension of cutouts and seams.

In general, measure each section to the longest and widest points. This avoids making rough cuts that are too small.

- **Measure and mark the maximum height of each section and locate all cutouts.**

• **Measure the width of each section of CORIAN®.** All sheets of CORIAN® are 30″ (76 cm) wide. The purpose of these measurements is to determine if any sheet of CORIAN® should be ripped to reduce width. In addition, these measures determine if any corners are out of plumb and need scribing.


As shown in this example, sections may not always measure in multiples of 30. In addition, corners will not always be square. Before making vertical rough cuts, determine the maximum width of each sheet by determining the maximum width up to 30″ (76 cm). Include measures into corners that may not be perfectly square.

C. Mark CORIAN®, check measures and cut.

• Using your measurements, mark each sheet of CORIAN® for cutting.

• If necessary, mark the sheet to show: top end, position in the enclosure and backside.

• Recheck the measures.

• Cut sections of CORIAN®. Make all cuts using routers or circular saws with straight-edge or template. To make small cutouts without a template, use a router, cutting counterclockwise.
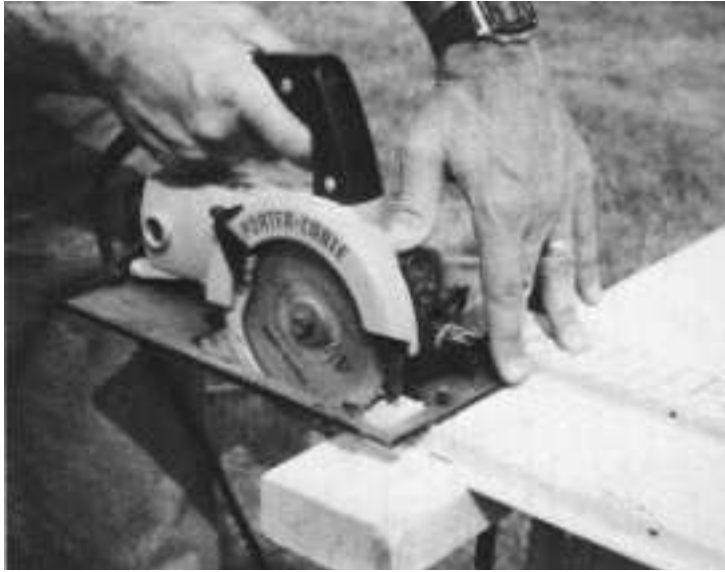
D. Sand and finish edges.

• Ease and smooth the top and bottom edges using an orbital sander or file.
• See "Tools and Equipment" in the **Introduction** section of this guide for detailed information about cutting and finishing CORIAN®.

Step 5: Shim, Trial-Fit and Mount Panels

- Shim and trial-fit
- Clean CORIAN® and installation area
- Apply adhesive
- Place, press and vent
- Apply hot-melt glue or brace

Order

Install panels of CORIAN® in the following order:

1. Ceiling (if required)
2. Back walls
3. Side wall without plumbing
4. Plumbing wall

- Leave a $\frac{1}{16}''$ (1.6 mm) gap for caulking between panels, and between the lower edge of the panels and tub or shower pan.


Leave $\frac{1}{16}''$ (1.5 mm) gap for caulking
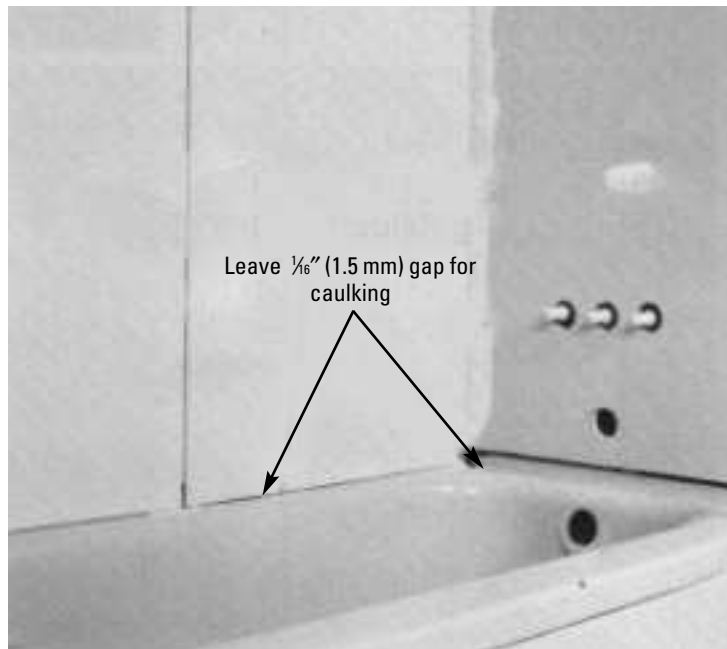
Use the guidelines that follow to install **each panel**.

A. Shim.

Correct placement of shims allows silicone to flow under the sheets of CORIAN® for better sealing against moisture and allows room for expansion and contraction.

Use pieces of laminate or popsicle sticks as shims. Do not use sharp, hard objects or materials like nails or metals which can chip the CORIAN®.
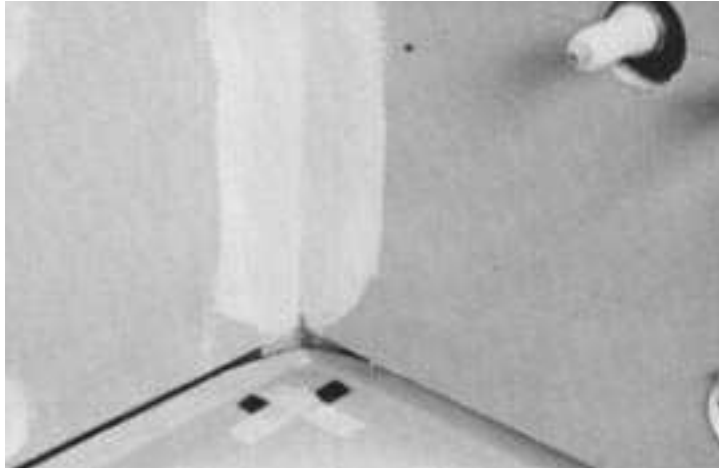
B. Trial-fit and scribe as needed.

Place the sheet on the shims where it will be installed and check the fit. Be sure the top edge of the sheet lines up with level line No. 2, which is your guide for installing all pieces of CORIAN® at exactly the same height.

Scribe using a compass and trim excess CORIAN® from the scribed area using a belt sander. For heavier cuts, use a router or circular saw with straightedge.

C. Clean CORIAN® and installation area.

Clean the CORIAN® backside and the edges with a clean, white rag and denatured alcohol. Then, wipe the subsurface down with a clean cloth dampened with alcohol. Be sure to clean all surfaces that CORIAN® will contact.


Clean all surfaces that CORIAN® will contact
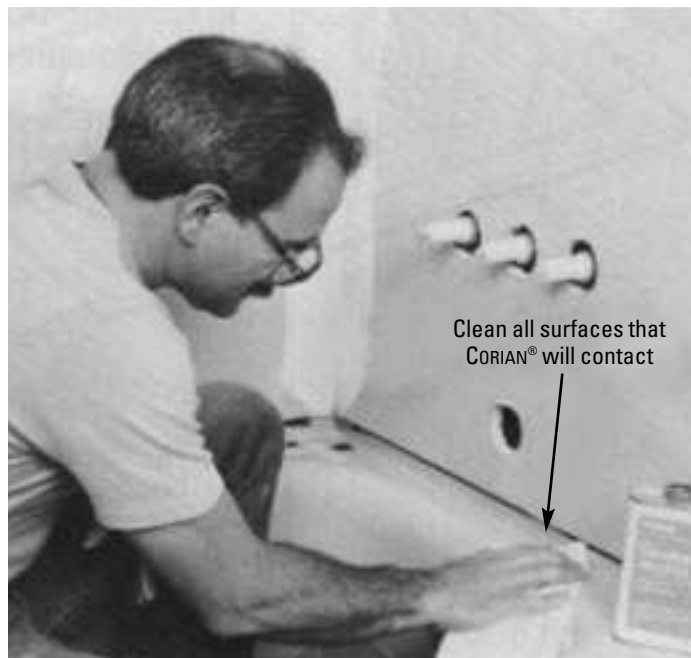
Thorough cleaning of the subsurface removes construction dust, dirt, soap film, oils, etc., that may interfere with adhesion or show through most translucent CORIAN® after installation.

See "Tips for Working with CORIAN®" in the **Introduction** for more information about cleaning CORIAN®.

D. Apply adhesive.

Use Panel Adhesive for DuPont CORIAN®, allowing one tube for each sheet of CORIAN®. White or clear silicone may also be used.

- Apply a solid bead of adhesive about 1″ (25 mm) from the edge and extending around the perimeter of the sheet of CORIAN®. Be sure the bottom bead line is above the ½″ (13 mm) air gap.

- Apply a solid bead of adhesive around the perimeter of all cutouts.

Run a continuous bead of adhesive around perimeter of sheet and cutouts.

Be sure adhesive bead is above the ½″ (13 mm) air gap.
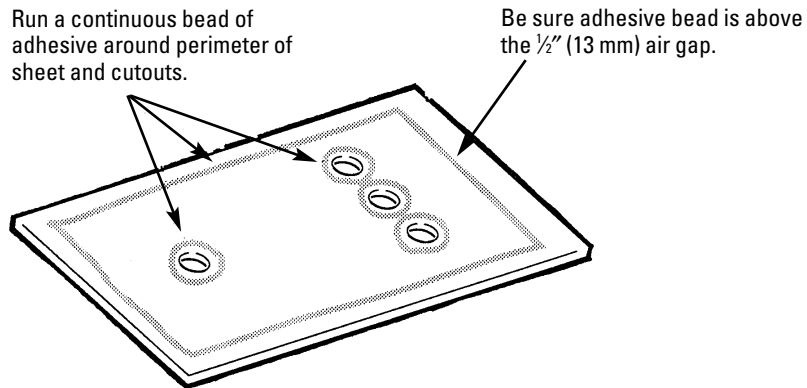
- Apply adhesive in diagonal lines across the center of the sheet.
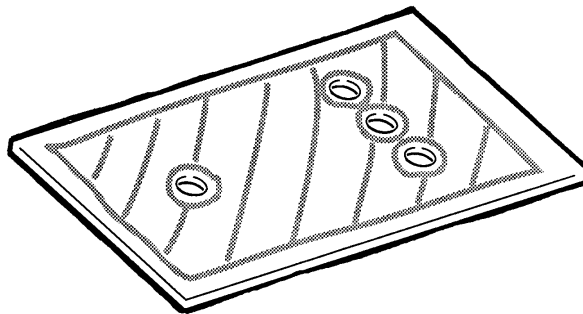
NOTE

Do not write words or draw pictures with the adhesive, as these may show through the CORIAN® after installation.

E. Place and press.

- Place the sheet of CORIAN® where it will be installed and press firmly along the bead lines.

Some adhesives may require venting. Read label on tube to determine if venting is needed.

- Vent by pulling the top of the sheet back, toward you. This allows adhesive vapors to escape. These vapors are concentrated and should not be inhaled. Allow the vapors to vent for the time recommended by the adhesive manufacturer. Then, check if the adhesive is well distributed.

CAUTION

Vapors released during venting are highly flammable. Do not vent near open flames or heat sources.

Vapors released during venting may be harmful if inhaled.

**Wear an OSHA/NIOSH–approved vapor mask.**

F. Temporarily fix the sheet of CORIAN® in place.

- Apply the hot-melt glue to the subsurface in two dabs where the upper corners of the CORIAN® will contact the subsurface. (Do not apply the hot-melt glue to the sheet of CORIAN® as it will set up too quickly.) Then, press the sheet in place.

With the exception of ceilings, which should always be braced, using hot-melt glue eliminates much of the mechanical bracing.

- If hot-melt glue is unavailable, brace the sheet for a minimum of 12 hours.

Brace when hot-melt glue not used.
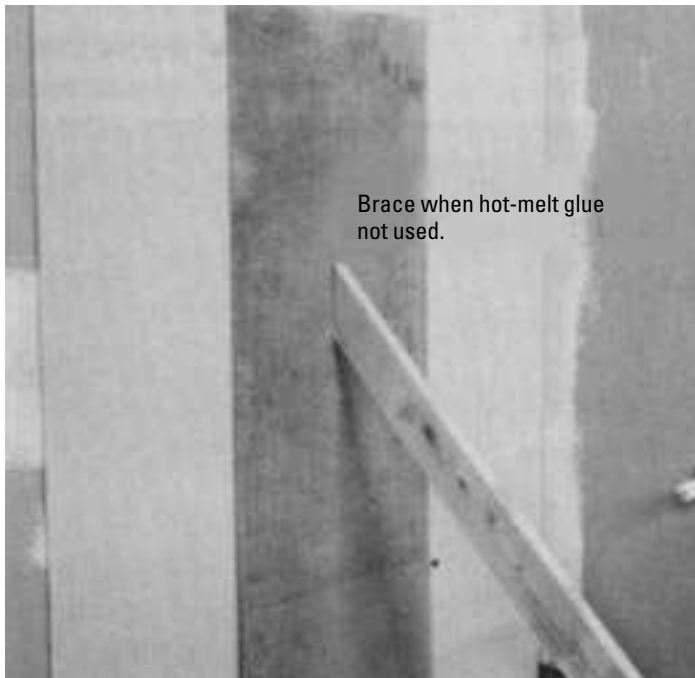
For Ceilings:

• Use T-braces to hold ceilings for a minimum of 12 hours.

Step 6: Trim, Caulk and Finish 35

- Apply trim
- Mount accessories
- Caulk
- Clean up
- Instruct customer

A. Plan trim design.

Trim beautifies the installation, giving it that finished look and enhancing the design. But it serves more practical purposes as well.

Trim is also used to hide seam lines and to provide a kind of second seal against leaking at the seams. Additionally, trim can be used as a filler when subsurface wall sizes are not standard.

Because of its unique workability, the variety of trim types is limited only by your imagination when working with CORIAN®. CORIAN® can be routed and sculpted to form many types of trims and achieve widely varied design possibilities.

The following pages show more commonly used types of trims.

Rabbeted trim

For a cleaner, more moisture-resistant seal, use a router to rabbet trim pieces. Silicone can be applied to the rabbet cut before installation for added protection.
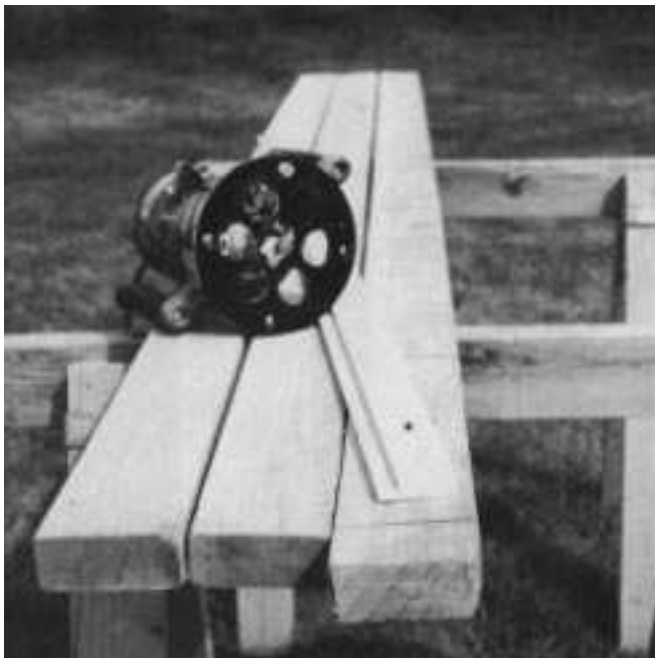
Starting with a wide piece of CORIAN®, use a router to shape the edge. With a table or panel saw, cut the strip so that its thickness and width are the same.

This type of trim is commonly used to cover inside corner seams or to frame other trim pieces or accessories. Be sure the detail of the corner moulding matches the horizontal trim.
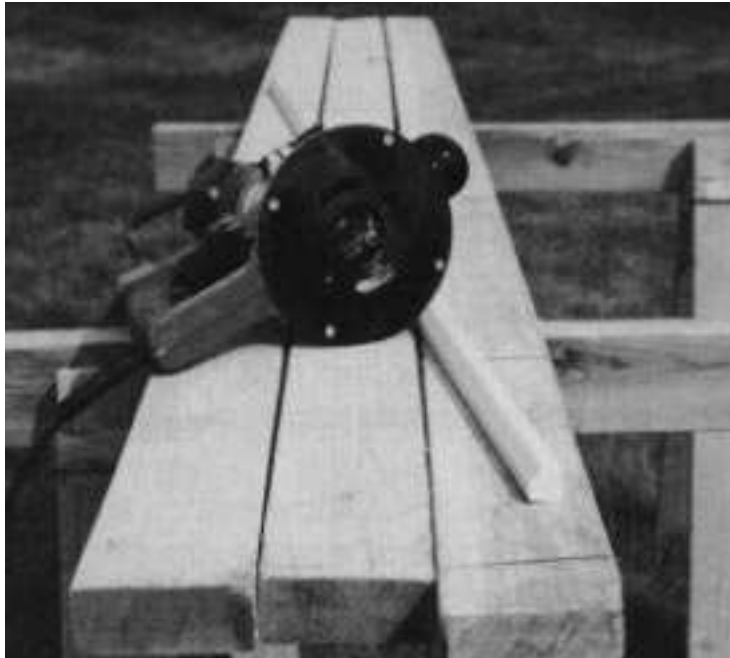
Batten strip trim

Battens are flat pieces of trim that are commonly used to cover the back seam on long walls, or to frame ceilings, windows or corners.
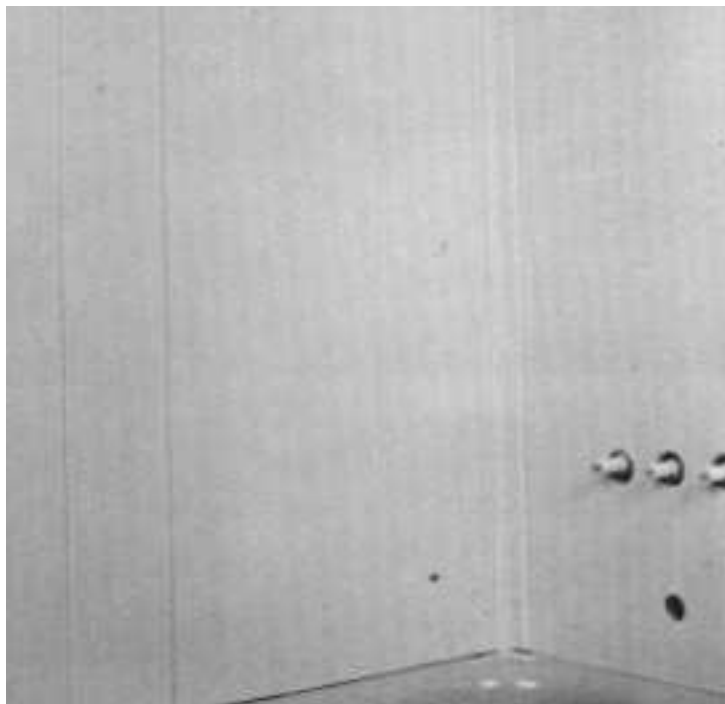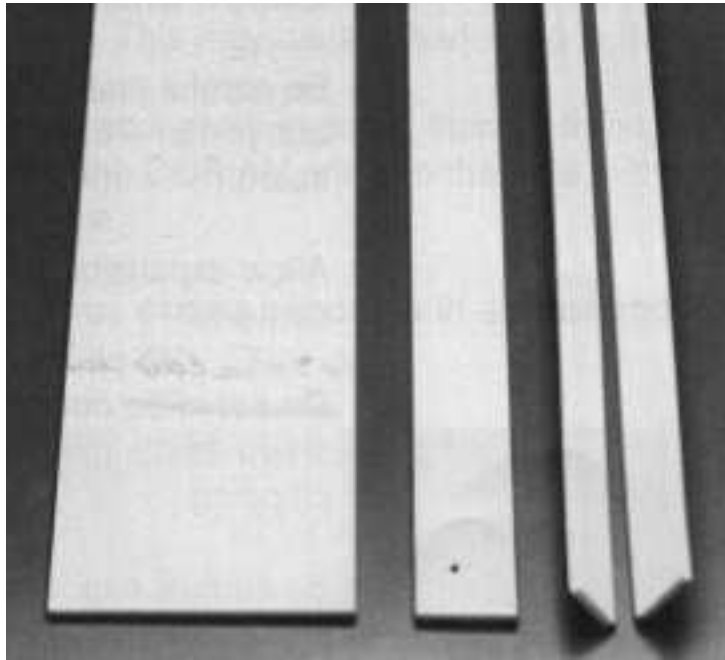
B. Cut and install trim.

Use the same procedures to cut and install trim pieces as you used to cut and install larger pieces of CORIAN®.

Except, when installing trim:

• Be careful that hot-melt glue does not leak out into butt joints. This may cause shadows in the caulk seam.

• Allow expansion space where strips meet in corners.

• Use extra care when mitering outside corners, as this may leave sharp, brittle pieces that may break or cause chipping.

• Be sure all exposed corners are sanded smooth.

C. Install accessories.

For recessed accessories

Run a continuous bead of silicone around the perimeter of the accessory. Then, apply dabs of hot-melt glue to corners of the accessory to temporarily hold it in place. Be sure the hot-melt glue does not leak into the seam. This may cause shadowing in the seam.

Press the accessory into place, fitting it through the cutout in the CORIAN® and into the hole in the subsurface.

Clean away excess silicone with alcohol and a clean, white rag.
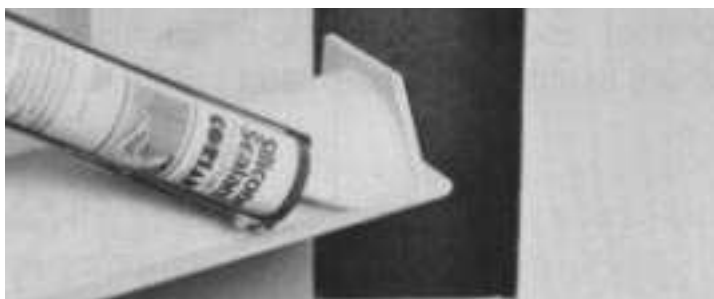
For surface-mounted accessories

- Drill a hole ⅛″ (3 mm) larger than the diameter of the accessory screw, without drilling into the subsurface block or the stud behind the CORIAN®. Be sure that the drill will not bite into the supporting block or stud (see page 21).

- Ease and smooth the sharp edges of the hole.

- Fill the hole in the CORIAN® with silicone.

- Insert the screw **in the center of the silicone-filled hole,** and into the blocking. Do not overtighten the screw. This could result in cracking at the edges of the hole.
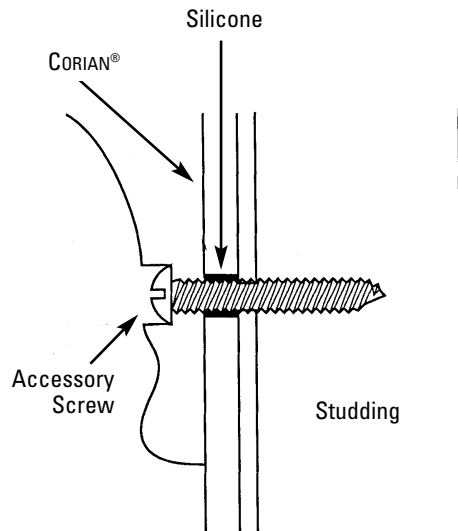
D. Caulk.

Materials.

Use **color-matched Silicone Sealant for DuPont CORIAN®** to caulk all lines that will be wet or that will never be painted or wallpapered. For instance, use Silicon Sealant for seams between CORIAN® and CORIAN®, CORIAN® and tubs, CORIAN® and shower pans, and CORIAN® and tile. Use a **latex caulk** for lines that will be painted or wallpapered.

Never use grout with CORIAN®. Grout is not flexible and will break loose from the CORIAN®.

Procedures.

Remove shims before caulking.

1. Wipe all surfaces to be caulked with a clean, white rag and denatured alcohol.

2. Square-cut the tip of the silicone tube, leaving a small opening. For best results, do not cut the tip on a slant.

3. Using the end of an open paper clip or a piece of wire, puncture the membrane in the tip of the silicone tube.


4. To ensure that the caulk is thoroughly mixed, squeeze the silicone onto a clean paper towel until the flow is all one color.

5. Apply the caulk by **pushing** it forward—away from you—rather than pulling it down, or toward you. Pushing the bead forward yields better results because the bead is forced into the seam more thoroughly, and the bead line is finished by the curve of the tip.

Be sure to caulk every seam, including those bordering trim pieces and accessories, and especially the top of the sheets of CORIAN®.

CAUTION

Before caulking the seam, be sure the edges of CORIAN® are both clean and smooth. Poorly finished edges or edges that have not been thoroughly cleaned may be sharp or grainy and may cut your finger.
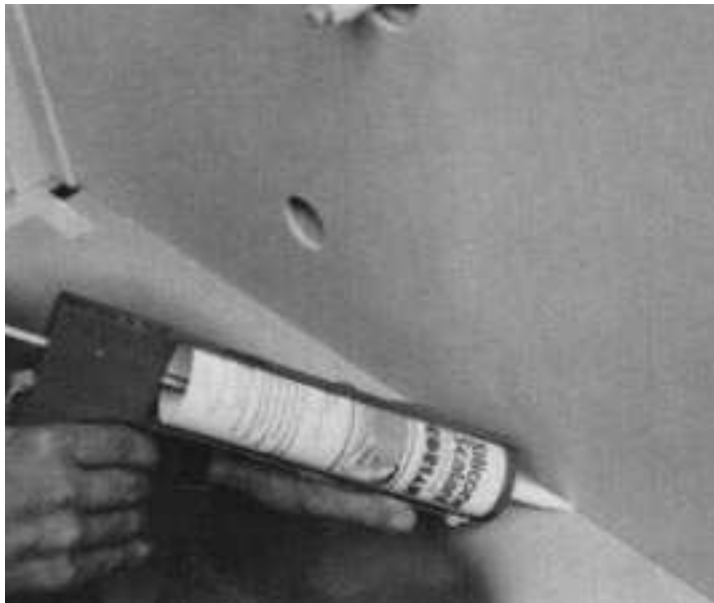
6. Use a clean, white rag, dampened with denatured alcohol, to clean the edges of the caulk line. Be careful not to use too much alcohol, as excess alcohol on the seam may prevent the silicone from setting properly.

E. Clean up and give customer care instructions.

After cleaning the installation area of dust and other debris, give the customer information on care and cleaning. Residential and commercial care and cleaning information is available from your local Authorized Distributor of CORIAN®.

Review the warranty program for CORIAN® with the customer; then complete and return the warranty registration card.

Many customers who buy CORIAN® are not aware of the durability and unique repairability of CORIAN®. If you spend a few minutes telling the customer about CORIAN®, the end result may be a satisfied customer who will recommend you to prospective new customers.

BEFORE USE

Remember to tell the customer to wait 24 hours before using the installation of CORIAN®.

This time is needed to allow the silicone to cure.

Summary of Care Instructions

- Water and ordinary cleaners, such as abrasive cleansers or Scotch-Brite® pads, can usually remove common household stains. Iron rust and copper stains can be removed with cleansers containing oxalic acid.
- Scratches, accidental cuts and most deep stains can be removed with 400-grit sandpaper followed by a buffing with Scotch-Brite®.

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

CORIAN®
SURFACES
Created For Life.™

DUPONT®