# SINKS AND BASINS

## Introduction

This bulletin discusses installing Corian® Solid Surface sinks and basins.

## Overview

High quality installations of Corian® Solid Surface sinks and basins are attractive and easy to clean. To properly install sinks the correct tools and techniques are required. Two installation techniques are discussed, undermount installations with "soft" silicone seams and submount installations with "hard" joint adhesive seams.

## A. Tools required

The installation of Corian® Solid Surface sinks requires precise fabrication to ensure a proper installation. It is essential to use the correct tools. In addition, all tools must be kept in good condition and must be sharp.

There are two typical methods of mounting a sink. The preferred method for mounting Corian® Solid Surface sinks and basins is a "hard" seam submount where the edge of the Corian® sheet and the sink are flush and the sink is attached to the Corian® sheet with DuPont™ Joint Adhesive or Corian® Joint Adhesive. An alternative mounting method for Corian® sinks and the preferred method for sinks made from other materials is the "soft" seam undermount method where the sink is often recessed from the edge of the Corian® sheet and is adhered with silicone adhesive.

These items are essential for installing sinks and basins:

## A.1. "Hard" seam submount

- A strong level workbench that can accommodate the sink when installed.

- A 2200 W router with a 30 mm template guide and a 1/2" or 12mm collet.

- Accurate template for the sink model being installed.

- The recommended two tungsten carbide tipped (TCT) router cutters for doing hard seamed mounting:
  - 10 mm diameter straight cutter
  - Sink profile bearing cutter.

*HELPFUL HINTS*

*If making your own templates, use high-quality material and make sure they are manufactured to precise dimensions.*

*Do not use incorrect router cutters.*

## A.2. "Soft" seam undermount

- A strong level workbench that can accommodate the sink when installed.

- A 2200W router with a 30 mm template guide and a 1/2" or 12mm collet. A 10mm and 13mm straight cutter.

- Appropriate template for the sink model being installed.

## B. "Hard" seam submount installation

In a submount installation the sink or basin is hard seamed with DuPont™ Joint Adhesive or Corian® Joint Adhesive to the underside of the worktop. The seam is then on the vertical plane of the sink, as illustrated in Figure B-1.
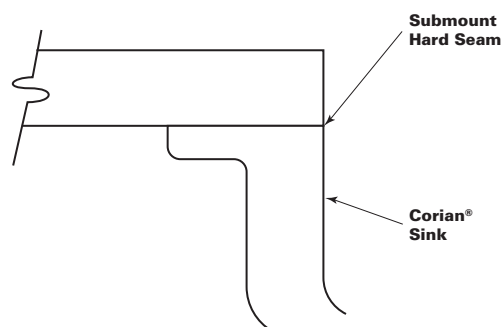


**Figure B-1**

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

Steps to completion:

1. Turn the sheet over and sand the area that the sink will be positioned on until smooth.

2. Clamp the template into position (sheet still upside-down).

3. Using a 2200 W router fitted with 30 mm template guide and 10 mm diameter straight TCT cutter, rout the sink cut-out.

4. Remove the template and trial-fit sink.

5. Adhere sink positioning blocks into position against bowl with hot-melt adhesive.

6. Inspect the rim face of the bowl for any imperfections, if needed sand the rim with a sink sanding board.

7. Clean the face rim and the areas to be glued with clear, denatured alcohol[1].

8. Apply DuPont™ Joint Adhesive or Corian® Joint Adhesive to the sink flange as shown in Figure B-2.

9. Turn sink over and align against sink positioning blocks. Check for proper alignment.

10. Press sink firmly in place. Look down through drain hole to check if there is squeeze-out around entire seam.

11. Use bowl-clamping fixture (or similar device) to hold bowl until adhesive sets. See Figure B-3.

12. After adhesive sets, remove clamping fixture and turn worktop over.

13. Use a 2200 W router equipped with a sink profile bearing cutter to rout excess sheet back to the inside of bowl.
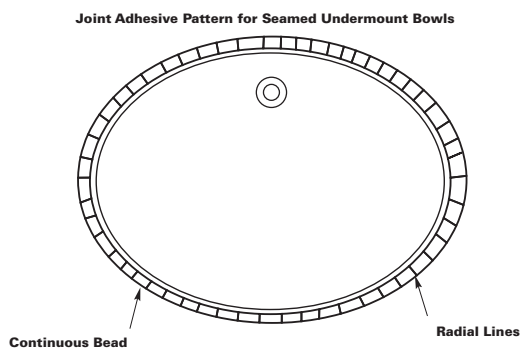
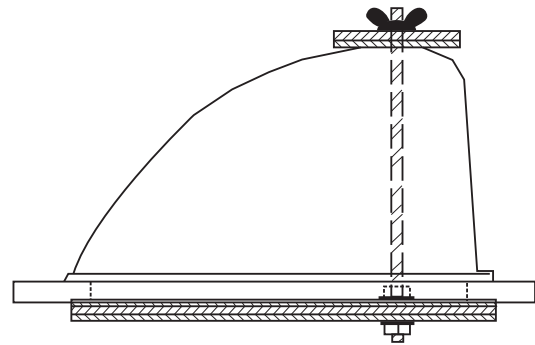14. Sand and finish bowl and sheet in normal manner.



Joint Adhesive Pattern for Seamed Undermount Bowls

Continuous Bead

Radial Lines

**Figure B-2**



**Figure B-3**

*HELPFUL HINTS*
*Do not forget to check that the bowl is properly seated into the adhesive and that it has a good, tight fit.*

*If router cutter used to trim sheet does not have a plastic bearing, protect bowl by applying a layer of masking tape where the bearing will ride.*

*If all the sheet excess is not removed, use an inflatable drum sander to remove excess.*

## C. "Soft" seam undermount installation

The procedures for installing undermount kitchen sinks and basins differ. Refer to the procedure that corresponds to the type of undermount sink or basin you are installing. Some models are best installed on the worktop in the workshop.

### C.1. Undermount kitchen sinks (Farmhouse style)

1. Prepare the bowl.
   - Check to see if the flange is flat and free of tool marks.

2. Prepare the support frame for kitchen sinks.
   - Measure the size of the kitchen cabinet opening where the sink will be installed.
   - Construct a plywood frame, allowing adequate clearance between the strips running front to back. These will support the sink. See recommended clearances on the templates.
   - Position the frame within the cabinet opening so that when the sink is installed, the top of the sink flange is level and flush with the top surface of the perimeter support at the cut-out area.
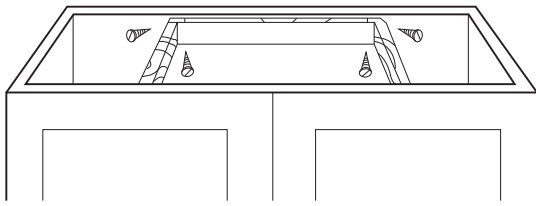   - Firmly attach the frame to the cabinet interior with screws (Figure C-1).

**Figure C-1**

## HELPFUL HINTS

*There are commercially available support systems designed to support undermount sinks.*

3. Install the sink in the frame.
   • Place a 25 mm spot of silicone at each corner of the frame where it will contact the sink.
   • Gently position the sink within the frame (Figure C-2).
   • Check the sink flange for level and for proper mating height with the perimeter support at the cut-out area. Adjust or shim, if needed.
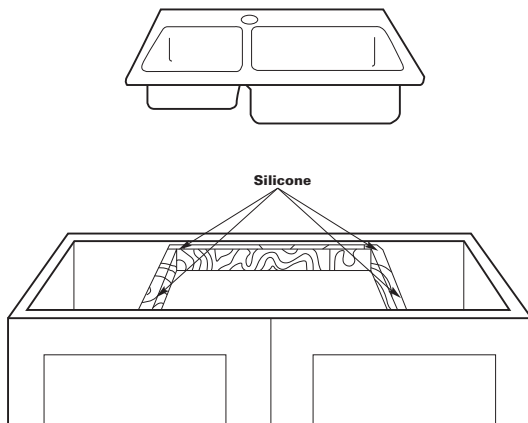


Silicone



**Figure C-2**

4. Prepare the sheet.
   • Cut the Corian® sheet for the worktop to the proper length and width.
   • Trial-fit and adjust, if needed.

5. Position and secure the template for the cut-out.
   • Carefully measure the worktop to determine the exact location of the cut-out.
   • Clamp the template in position.

6. Rout the cut-out.
   • Make the cut-out using a 1400W-2200W router with a 30 mm template guide and a 10 mm TCT straight single-flute router cutter (Figure C-3).
   • Rout the tap holes. Tap holes can be made using a hard template and router or a high-speed electric drill with a spade bit, twist drill or hole-saw. Do not use auger bits.

• To minimise sanding, smooth the inside of the cut-out with a 1/2" (13 mm) double-flute, TCT router cutter and a 30mm template guide.
• Remove the template.
• Use an orbital sander to smooth the cut-out area and to remove all router marks.
• Rout decorative design into edge of cut-out if desired.



**Single-Flute Carbide-Tipped Bit**      **Double-Flute Carbide-Tipped Bit**
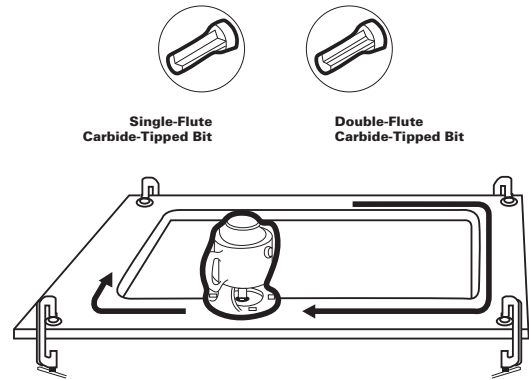


**Figure C-3**

7. Install the worktop over the sink.
   • Clean the top of the sink flange with denatured alcohol and a clean, white cloth (Figure C-4).
   • Clean the bottom of the worktop around the cut-out area with denatured alcohol and a clean, white cloth.
   • Apply a generous bead of colour-coordinated 100% silicone sealant around the top inside edge of the flange (where sink wall and flange meet).
   • Position the worktop over the sink, being careful that the 100% silicone sealant provides a complete seal where the surfaces meet.
   • Remove the excess sealant; then wipe the joint with denatured alcohol and a clean, white cloth.
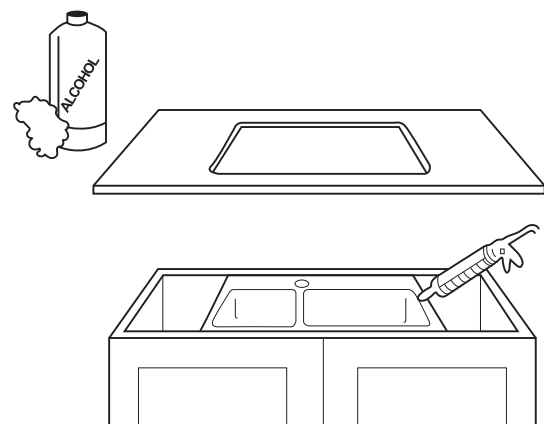


**Figure C-4**

**Allow the silicone adhesive to cure overnight before installing plumbing connections.**

## C.2.    Undermount sinks and basins (Worktop mounted)

1.  Turn the Corian® sheet upside-down and position and secure the template for the cut-out.
    *   Use a 1400W-2200W router with a 30 mm template guide and a 10 mm TCT, single-flute cutter (Figure C-5).
    *   Remove the template.
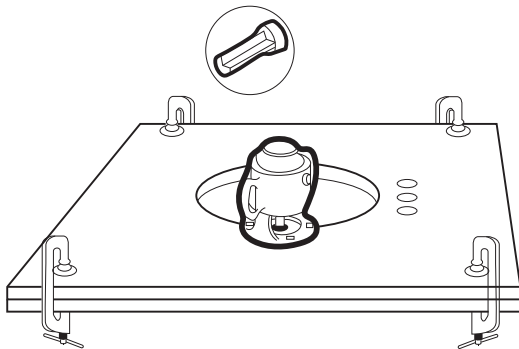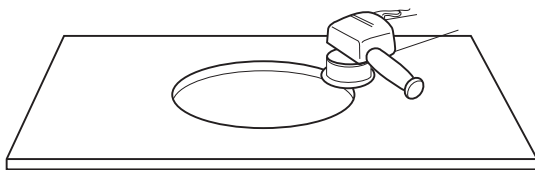    *   Use an orbital sander to smooth the cut-out if needed (Figure C-6).



**Figure C-5**



**Figure C-6**

2.  Trial-fit the bowl.
    *   Position the bowl over the cut-out, checking for a tight fit (Figure C-7).
    *   Modify and re-sand the Corian® sheet, if needed.
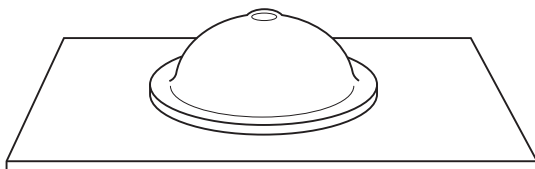


**Figure C-7**

3.  Make the tap holes.
    *   Use a template and a router or a high-speed electric drill equipped with either a spade bit, twist drill or hole saw.
    *   Do not use auger bits.

4.  Install brass inserts or similar mechanical fasteners for Corian®.
    *   Centre the bowl face-down over the cut-out.
    *   Locate the holes 25 mm from the side edges of the bowl flange and away from the bowl's front and back edges to allow clips to clear the cabinet frame (Figure C-8).
    *   Drill or rout holes into the sheet for the mechanical fasteners (check brass insert/mechanical fastener instructions for exact hole dimensions).
    *   Remove the bowl and install the brass inserts or fasteners into the holes in the worktop.
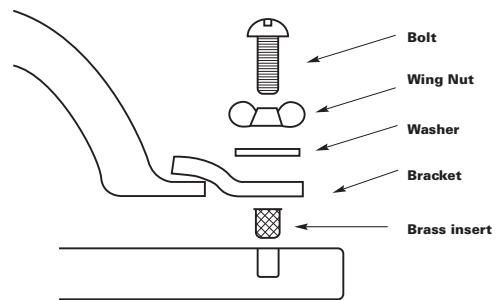


**Figure C-8**

5.  Fasten the bowl to the top.
    *   Clean the bowl's top flange and the cut-out with denatured alcohol and a clean, white cloth (Figure C-9).
    *   Assemble the undermount hardware (Figure C-8).
    *   Screw the bolt assemblies into the brass inserts or fasteners.
    *   Apply a generous bead of colour-coordinated 100% silicone sealant to the inside edge of the bowl flange.
    *   Install the bowl over the cut-out.
    *   Tighten the wing nuts to secure the bowl.
    *   Make sure that the joint is completely filled, and then remove the excess sealant with denatured alcohol and a clean, white cloth.
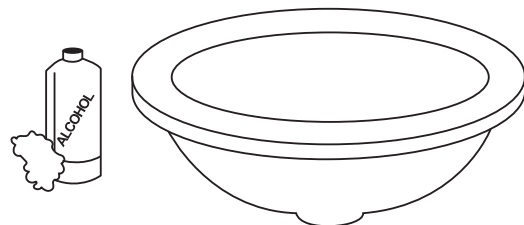


**Figure C-9**

**Allow the silicone adhesive to cure overnight before installing the top or installing plumbing connections.**

6. Install the Corian® worktop and sink on the cabinet.
   - Place a 25 mm spot of silicone adhesive every 300 mm around the top cabinet support (Figure C-10).
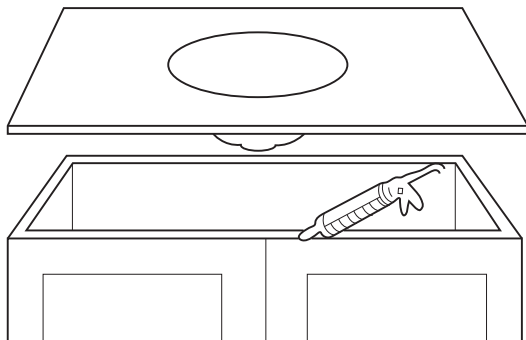   - Position the bowl and worktop unit on the support.



**Figure C-10**

## D. Referenced documents

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

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