



Any fabrication procedure or technique not contained within the Wilsonart® Solid Surface Fabrication Manual will not be recognized by Wilsonart, LLC as an approved method of fabrication. Deviations from these techniques must be approved in writing by a Wilsonart Representative.



General Safety:

Safety is a critical concern for any shop and key to a successful business. The following safety rules should be incorporated into your safety program to help prevent an accident. Safety training, knowledge, product use and environment are the responsibility of the facility owner and the shop employees.

CAUTION: Always follow product, equipment and/or tool manufacturer's recommendations and instructions carefully.

- Read directions carefully before fabricating/installing Wilsonart® Solid Surface.
- Read and follow the instruction manual before operating the different tools.
- Keep all guards in place and in working order.
- Ensure all tools are properly grounded. Never remove the third prong.
- Keep work area clean, uncluttered and well lit.
- Don't use electric power tools in a damp or wet work area.
- Keep visitors at a safe distance from the work area.
- Use the right tools. Don't force a tool or attachment to do a job it was not designed to perform.
- Always use safety glasses or approved eye protection and/or face shield, ear/noise protectors and safety shoes. (FIG. 3A & 3B)
- Wear the proper apparel, no loose clothing or jewelry.
- Secure all work with the proper clamp or vise to a stable work surface.
- Don't overreach. Keep proper footing and balance at all times.
- Maintain tools in top condition. Disconnect tools before servicing and when changing accessories such as blades, bits, cutters, etc.
- Keep and use denatured alcohol, adhesives and materials in a safe, ventilated place.
- Dust collection should be used when cutting, routing and sanding. Tools should be used with dust collection at all times.



Figure 3A



Figure 3B

Wilsonart® Hard Surface Adhesive:

- Wilsonart® Hard Surface Adhesive is for professional use only. Always follow the manufacturer's recommendations and instructions carefully. (FIG. 5A)
- Warning: This seam kit contains the following hazardous ingredients: Methyl Methacrylate, Benzoyl Peroxide, and Dibutyl Pathlate. Avoid prolonged breathing of vapors. Use only in a well ventilated area. Keep out of reach of children. Eye protection is always recommended. Motors and other equipment used in the fabrication and installation process must be UL labeled explosion proof.
- For further information refer to Wilsonart® Hard Surface Adhesive Material Safety Data Sheet available on request. Contact your local distributor or call 1-800-433-3222 for immediate response.

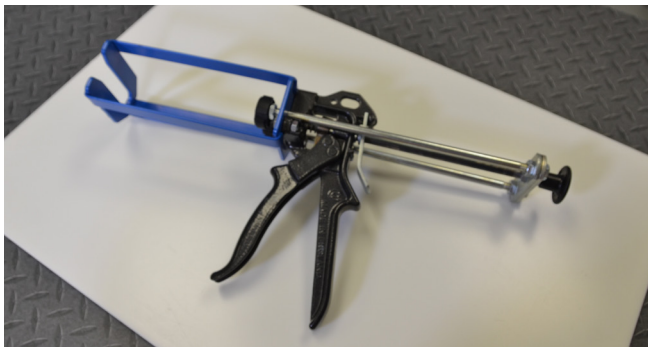


Figure 5A

FAB TIP:

- For Wilsonart Solid Surface hard seam design color chart, refer to www.wilsonart.com

THERMOFORMING

General Information:

- Wilsonart® Solid Surface material can be formed to create dimensional shapes and curves through the process of thermoforming.
- Thermoforming is the technique used to heat up the entirety of material to temperatures ranging from 285°F - 325°F. This gives the fabricators and designers the ability to create 3D curves and rounded shapes for any project needs.
- Prior to thermoforming, material should be free of chips, scratches, and any fractures for best results.
- Refer to the Thermoforming Section in the Solid Surface Manual when forming or bending Wilsonart Solid Surface. Certain Wilsonart patterns are not recommended for the Thermoforming process.
- To thermoform Wilsonart® Solid Surface material, an oven that will heat the material is needed. (FIG. 6A)
 - Thermoforming Convection Ovens
 - Heat Platen Ovens
 - Benchtop Thermoforming Ovens
 - Vacuum Presses
- The sheet temperatures should be between 280° F to 325° F (137.8° C to 162.7° C) throughout the thickness during bending. Low temperatures can cause the material to widen and cause cracking through the thermoforming process. Material temperatures should be verified for each equipment and use.

FAB TIP: Cold spots in the sheet will lead to cracks and whitening. Hot spots may cause blistering, discoloration, whitening and cracks.

- Wilsonart® Solid Surface material is limited to a bending radius of 3" (76.2mm). It is recommended to cut the material slightly larger than the required size, material will expand with heat and contract during the cooling process.

FAB TIP: Bending sheets to a smaller radius can result in crazing, whitening, cracking, or reduction in impact resistance.

- For the best result, a set of male and female molds should be used to form the sheet into the desired radius shape (this is highly recommended for thermoforming 1/2" (13mm) sheets. (FIG. 6C)
- Heat Guns, Torches and Cal Rods will cause failure with Wilsonart® Solid Surface materials.

FAB TIP: Spot heating or localized heating will cause problems due to the temperature difference between the heated area and the unheated area. Overheating will cause blistering and color shifts (dark). Low temperatures can cause the material to widen and cause cracking through the thermoforming process. (FIG. 6D)

Cool Down

- Once the material has reached the recommended temperature range, 280° F to 325° F (137.8° C to 162.7° C), depending on the design, carefully remove from the heating element and form to the mold or shape. Utilize clamping devices if needed, depending on the forming process.
- Allow the thermoformed sheet to cool down in the mold to less than 170° F (76.6° C) before removing from mold. Depending on the surrounding room temperature, cool down will take approximately 20 to 40 minutes.

THERMOFORMING

Seaming

- All seaming must be done after cool down of thermoforming.
 - Squeeze out is required the entire length of all seams.
 - Refer to the Sanding/Finishing steps in the Wilsonart® Solid Surface Manual.

FAB TIP: Wilsonart Cosmic offers the most variety in movement depending upon which fabrication technique is used.



Figure 6A



Figure 6B

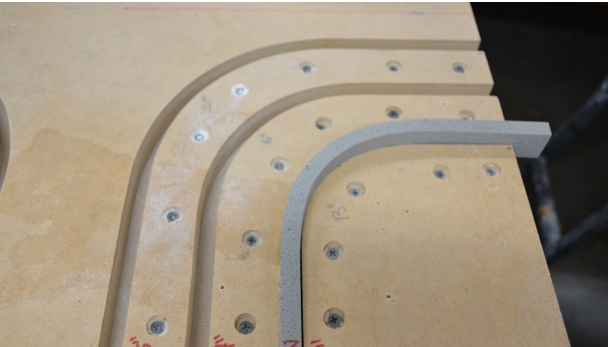


Figure 6C



Figure 6D



Figure 6E