



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. 4A & 4B)
- 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 4A



Figure 4B

## 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.

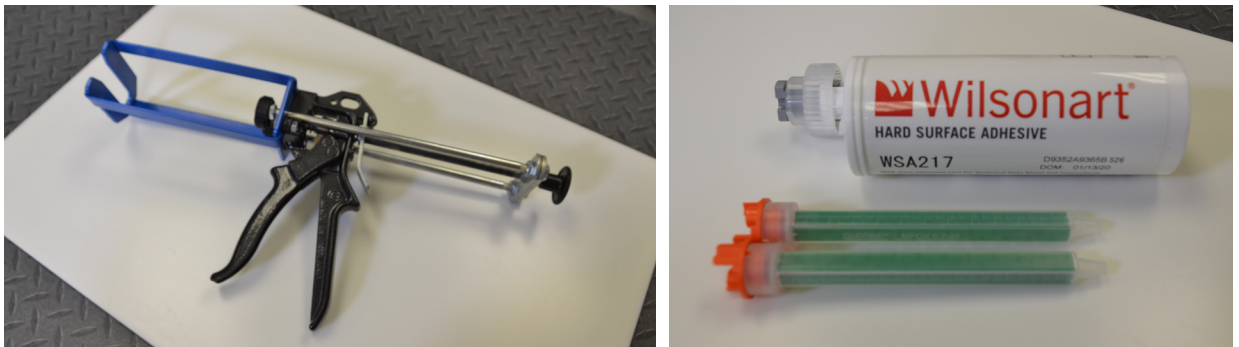


Figure 5A

### FAB TIP:

- For Wilsonart Solid Surface hard seam design color chart, refer to [www.wilsonart.com](http://www.wilsonart.com)

# INTRODUCTION

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Wilsonart® Solid Surface offers various designs with versatile aesthetics by formulating specific raw materials and introducing precise manufacturing techniques. Wilsonart Solid Surface offers designs that provide a translucent surface opportunity and designs which can be backlit to give unlimited mesmerizing opportunities to our customers.

- Specific matrix of designs will provide a more attractive and translucent opportunity
- Contact your Wilsonart Representative for design specifics in relation to translucency

## Lighting/Design Recommendations:

- Tresco's Snap Panel System installation spec guide:  
<https://www.trescolighting.com/p-186-led-panels-snap-panels-24.aspx>
- The design should allow enough light to pass through it, that it is noticeably perceived under normal ambient room lighting while standing at a distance of 5ft away.
- The light should be placed inside a lightbox and be fully enclosed. The back of the surface to be tested should be 2 +0.25 inches away from the LED for best light uniformity. When turned on, the following criteria should be used to pass or fail each design.
- Light fixture and light box recommendations, LED bulb type with 5,000 Kelvin, 120 degree of angle beam, 18,995 foot candle, 12"X12" light fixture and box.

## General Information:

- Proper cleaning of surfaces on front and back is highly recommended
- Labels, writing, and any other markings should be removed
- Dry fit countertop and lighting prior to complete installation. Please contact Wilsonart Technical & Fabrication Group for additional support and information in regards to Wilsonart Solid Surface at 800-433-3222 or visit us at [www.wilsonart.com](http://www.wilsonart.com).



Particle board or MDF are the only substrates recommended to be used as proper support of Wilsonart Solid Surface when backlighting countertops.

- Substrate should be installed with appropriate support and distance
- Substrate surface must be sound, flat, smooth and free of dust or other contaminants during installation
- Follow lighting manufacturer's guidelines
- Rebates / dado's can be routed into the substrate to create wiring locations for the installation process

## Seaming:

- Seam quality is critical for appearance. Seams may be more visible when backlit than with typical room lighting. A high quality tight seam will minimize the visibility of the seam. Make sure no interior voids are present in the adhesive as they will be visible when the seam is backlit.
- Place the seams where they are less likely to be noticed. This could include corners or locations where the light source or supports create a shadow.
- If a tight seam is not achieved, the seam may be visible. The visible adhesive may change appearance depending on the lighting, appearing darker than the sheet if not backlit, and lighter than the sheet if backlit. Do not use excessive pressure. Enough adhesive needs to stay in the joint to create a strong seam.

Disclaimer: Due to the characteristics of the sheet material and adhesive, there will be a slight visibility of the seam.

**FAB TIP: EXCESSIVE ADHESIVE ON THE BACKSIDE OF THE SHEET MUST BE SANDED TO AVOID SHADOWS FROM BACKLIGHTING.**

## Miter Edge Preferred

- Miter Edge Profiles are recommended and provide more translucency
- Miter fold should be completed at true 45° angle for quality seam and to ensure maximum strength and translucency
- Improper machined 45° parts can increase edge seam visibility especially when larger profiles expose the seam area. Chipping of edges during profiling is also created from improper preparation of edge parts to be seamed
- Stacked edge can be used but will be more limited on translucency

## Adhesives:

- A clear or translucent Wilsonart Hard Surface Seam adhesive is recommended. Proper distribution of adhesive is important to visual quality, strength of seam, and translucency
- 100% clear silicone should be used to adhere countertop to the cabinet/frame support around the perimeter only
- Excessive adhesive must be removed from surface or backside of countertop to prevent shadowing



# LIGHTING

- LED (light emitting diode) lighting is recommended to provide the most advanced and efficient lighting application.
- LED will be sandwiched between a full substrate and the bottom of the countertop .
- Flat panel LED's which have to be wired together and sandwiched, can be cut to size on the job site as well.
- For best results when backlighting, panels should be trimmed to fit to the entire configuration.
- Always test light panels prior to securing to the substrate.
- Even lighting across the countertop is important for best visual quality of lighting.
- Various types of lighting create heat, ventilation or removal of excess heat must be addressed.
- Brighter light sources will produce a greater amount of translucency but create more heat. Light sources providing minimal hot spots of light and overheating are preferred.
- Thermal expansion of Wilsonart Solid Surface will be reduced with proper lighting and ventilation.
- Always follow manufacturers recommendations for flat panel LED lighting.

