



WILSONART® SOLID SURFACE FABRICATION AND INSTALLATION GUIDELINES

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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 instruction manual before operating the different tools.
- Keep all guards in place and in working order.
- Insure 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.

Wilsonart[®] Hard Surface Adhesive

- Wilsonart[®] Hard Surface Adhesive is for professional use only. Always follow the manufacturer's recommendations and instructions carefully. (FIG. 4C)
- 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 to a question concerning Wilsonart[®] Hard Surface Adhesive.



Figure 4A



Figure 4B



Figure 4C



HANDLING:

Carry Wilsonart[®] Solid Surface sheets vertically to minimize flexing.

STORAGE:

Store Wilsonart[®] Solid Surface sheet goods flat on pallets or other suitable racks. (FIG. 5A)

Store Wilsonart[®] Sinks in their original shipping boxes until ready to install. (FIG. 5B)

Store Wilsonart[®] Hard Surface Adhesive in cool, stable refrigeration unit. The optimum temperature should be between 40^o F and 60^o F. The shelf life of the seam kits will be greatly increased by refrigerated storage. (Do Not Freeze). See Technical Data Sheet for additional information.

INSPECTION:

Every effort has been made to supply high quality materials, free of defects. However, you the fabricator, must conduct a final (pre-cut) inspection for color match, manufacturing defects or damage to continue the quality control process prior to fabrication.

SHEET SELECTION PROCESS:

Wilsonart[®] Solid Surface sheets are color matched by lot numbers only.

Lot number is located on edge of sheet material



Figure 5A



Figure 5B



The following suggested tool list is only a minimum requirement for professional and successful Wilsonart[®] Solid Surface fabrication.

Various woodworking and specialized solid surface fabrication tools are available in the market today. (See the Tool Supplier listing in the appendix).

Stationary Tools

- □ Table or Panel Saw
- □ Miter ("Chop") Saw
- □ Triple Chip Carbide Saw Blades

Hand & Power Tools

- □ Routers (FIG. 6A)
 - 3¼ HP with ½" (13mm) collet
 - 3¼ HP Plunge base w/½" (13mm) collet
 - 1½ -2½ HP w/½" (13mm) collet (edge details)

 \Box General Router Bits

- -1/2" (13mm) Straight cut
- -1/2" (13mm) Bottom bearing flush trim bit
- -1" (25.4mm) Top bearing flush trim bit
- -Bottom bearing rabbeting bit
- -Various profile bits
- Sanders (FIG. 6B)-Random Orbital
 -Dust collection system (suggested)
 -Sanding Disks (Micron)
 -Scotch-Brite[®] pads

□ Straight Edges (Phenolic or Aluminum)

- □ Clamps (FIG. 6C)
- □ Bowl Bits

Contact 800-433-3222 or Wilsonart Technical Service Department for recommended bits.



Figure 6A



Figure 6B



Figure 6C



Tools Not Recommended

• Jigsaws – Rout all cutouts. (FIG. 7A)

- Auger type drill bits Use hole saw/router for larger holes. (FIG. 7B)

Figure 7A



Figure 7B



 ATB (Alternate Top Bevel) or ripping saw blades. Use only triple chip or solid surface cutting blades. (FIG. 7D)

Belt Sanders – Do not use belt sanders at seam

•

areas. (FIG. 7C)





Figure 7D



TOOL MANUFACTURERS

Stationary Tools

Powermatic www.powermatic.com	1-800-274-6848	Holz Her www.holzher.com	1-704-587-3400
Delta www.detlamachinery.com	1-800-223-7278	 Striebig www.csaw.com 	1-781-585-4364
Hand Tools - Routers, S	Sanders, Bits, etc.	Router Bits	
Porter Cable www.portercable.com	1-888-848-5175	 Amana Tool www.amanatool.com 	1-800-445-0077
Beaver Tools www.beavertools.com	1-800-365-6677	Velepec www.velepectools.com	1-800-365-6636
		 Wesley Tools, Ltd. www.wesleytools.com 	1-800-397-6867
Sanding Equipment			
 Fein www.feinus.com 	1-800-441-9878	 Dynabrade www.dyabrade.com 	1-716-631-0100
 Festool www.festoolusa.com 	1-800-423-3531	Master Power www.masterpneumatictools.c	1-866-557-8316 om
Surcare www.surcare.com	1-800-669-5519		

 Festool www.festoolusa.com 	1-800-423-3531
 Surcare www.surcare.com 	1-800-669-5519
Gem Sander	1-800-447-4436

• Bessey

Pipe and Bar Clamps

1-800-828-1004 www.americanclamping.com

Sandpaper	/	Finishing	Pads
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www.gem-industries.com

- 3M 1-800-742-9546 Scotch-Brite & Trizact www.3m.com
- Micro Mesh 1-908-788-5550 www.sisweb.com
- Norton 1-800-446-1119 www.nortonabrasives.com
- Mirka 1-800-843-3904 www.mirka-usa.com
- Sia 1-800-459-3534 www.sia-abrasives.com



Recommended Saw Blades

•	Amana www.amanatool.com	1-800-445-0077	Guhdo www.guhdo.com	1-800-544-8436
•	DML www.dmlwoodworking.com	1-800-242-7003	 Forrest www.forrestsawblades.com 	1-800-733-7111
•	FS Tool www.fstoolcorp.com	1-800-387-9723	• Leitz www.leitz.com	1-800-253-6070

Misc. Tools

Fein Power Tools	1-800-441-9878
www.feinus.com	
Dustless sanding system	
	Fein Power Tools www.feinus.com Dustless sanding system

- The Pinske Edge 1-800-874-6753 www.pinske-edge.com Specialized solid surfacing tools
- Specialty Tools 1-800-669-5519 www.specialtytools.com
- Perfect Seam 1-770-463-8321
 Vacuum base seam clamps
 Vacuum base seam leveler
 www.omnicubed.com
- Wood's Power Grip Co. 1-800-548-7341 Vacuum base seam clamps www.powergrip.com
- Conprotec Inc. 1-603-893-2727 www.mixpac.com Adhesive despenser repair parts

- Betterley Industries 1-800-871-7516 www.betterleytools.com
- Align-Rite Tool Co. 1-888-624-1942 www.alignritetool.com Fabrication tools
- A.M.P.S. 1-800-669-5519 www.ampsedge.com Straight edge
- DeWalt 1-800-433-9258 www.dewalt.com
- Zip Wall 1-800-718-2255 www.zipwall.com Dust containment
- Sink Setter at Precision Works 1-714-847-3396 Sinksetter, Inc.
 Sink Setter Brackets
 Easy Leveling Shelf and Counter Bracket
 www.sinkset.com



FAB TIPS

- Do not use lacquer thinner, acetone or other solvents on Wilsonart Solid Surface material.
- Colored or printed towels can leave a residue which will contaminate the seam material and cause a weak or stained bond line.
- Refer to the Thermoforming Section when forming or bending Wilsonart Solid Surface. Wilsonart Cityscape, Cosmic and Ice Collections are not recommended or approved for Thermoforming process. Spot heating or cold bending is not approved and will introduce internal stress into the product.
- Thermoforming is not recommended or approved by Wilsonart for the Cityscape, Cosmic and Ice Collections. Please contact Wilsonart Technical Service Group at 800-433-3222 for further information.
- All edges should be sanded smooth and free of sharp corners and kerf marks which result in stress points.





Wilsonart Solid Surface Countertop Layout Conventional Seams Locations

Figure 11A





Wilsonart Solid Surface Countertop Layout PT Seams Locations

Figure 12A





Wilsonart Solid Surface Countertop Layout 45° Seams Locations

Figure 13A





Wilsonart Solid Surface Countertop Layout PT Butt Seams Movement

Figure 14A





Wilsonart Solid Surface Countertop Layout Conventional Seams Movement

Figure 15A



Deck Seams–Conventional

- Machine both edges to be seamed. (FIG. 16A)
- Seams should fit tightly when dry fitted.
- Place a release material (such as clear packing tape) under the seam to prevent contamination of deck seam.
- Thoroughly clean areas to be seamed with denatured alcohol using clean white shop rag.
- Position sheets to be seamed ³/₁₆" (4.8mm) to ¹/₄" (6.4mm) apart.
- Prepare clamping materials
- Prepare seam kits.
 Purge cartridge & tip to ensure proper mixture of adhesive.
- Fill the seam to ½ full.
 Damming the ends will make this easier.
- Slide the sheets together. Make sure there is adhesive squeeze out along entire seam. Clamp the seam together using bar or spring clamps. (FIG. 16B)
- DO NOT OVERTIGHTEN clamps.
 Over tightening will cause starved, weak seams.
- Remove adhesive squeeze out with router on "skis," surface leveler, or random orbital sander. (FIG. 16C)
 - Do not scrape, chisel or use belt sander on seam.
- All seams must be reinforced with a 4" (101.6mm) wide Wilsonart Solid Surface seam support adhered to the back of the panel. (FIG. 16D)
- □ 45° seams required 5" wide Wilsonart Solid Surface seam support (see page 19)
- □ Reinforcement strip must be sanded smooth.
- □ Reinforcement strip must cover length of seam.
- Overlap seam support 2" (50.8mm) on each side.
- □ Ensure complete adhesive coverage.
- Sand the finished seam to job specifications. (See Finishing Section)



Figure 16A



Figure 16B



Figure 16C



Figure 16D



DECK SEAMS

Deck Seams-PT Seam

This method can be used with miter fold, vertical and stacked edges.

Machine all edges to be seamed. (FIG. 17A)

- Thoroughly clean areas to be seamed with denatured alcohol using clean white shop rag.
- Prepare clamping equipment.
- Prepare seam kit.
 Purge cartridge and tip to ensure proper mixture of adhesive.
- Apply two ³⁄₁₆" (4.8mm) beads of adhesive on the edge of one panel to be seamed. (FIG. 17B)
 Apply sufficient adhesive which will cover entire drop edge and allow squeeze out along entire seam.
- Clamp the seam together. (FIG. 17C-17D. See page 9 for tooling information)
- DO NOT OVERTIGHTEN clamps.
 Over tightening will cause starved, weak seams.
- FAB TIP: 90° seam with the Movement Design Series will create visual inconsistencies.



Figure 17A



Figure 17B



Figure 17C



Figure 17D



Adhere a Wilsonart Solid Surface block into the inside corner and clamp in place. Block must cover entire length of seam from top of deck to bottom of drop edge. (FIG. 18A)
 See page 24 for minimum requirements.
 Squeeze out is required on both top and bottom of

 Remove adhesive squeeze out with router on "skis," surface leveler, or random orbital sander. (FIG. 18B)
 Do not scrape, chisel or use belt sander on seam.

• Rout radius at inside corner. See page 24 for minimum requirements. (FIG. 18C)

the seam and all sides of the corner block.

- To accommodate face frame installs, a 1" minimum seam thickness is required over cabinet base, thus eliminating notching the cabinet base. (FIG. 18D)
- Sand the finished seam to job specifications. (See Finishing Section)
- FAB TIP: 90° seam with the movement design will create visual inconsistencies.



Figure 18A



Figure 18B



Figure 18C



Figure 18D



Deck Seams-45° Seam

This method is recommended to be used for movement or directional designs. Conventional 45° seams are the preferred method for seaming, allowing the pattern movement to continue throughout the application and flow in similar direction through the angle or corner.

Oversize the width of both sections being seamed by a minimum of 1" (25.4mm) on each section.

- To be based on finished countertop dimension (i.e. 26" (660.4mm) for a finished standard 25" (635.0mm) countertop depth).
- This will allow for adequate material once corner and profile are machined and allow for edge detail seams distance from the inside corner.

Machine both edges to be seamed.

Alignment biscuits/wafers (synthetic only) or slot bits are recommended for alignment, leveling and to eliminate movement of 45° seaming process. Use of Wilsonart Hard Surface adhesive is recommended.

Seams should fit tightly when dry fitted.

Place a release material (such as packing tape) under the seam to prevent contamination of deck seam.

Thoroughly clean areas to be seamed with denatured alcohol using clean white shop rag.

Position sheets to be seamed $\frac{3}{16}$ " (4.8mm) to $\frac{1}{4}$ " (6.4mm) apart.

Prepare clamping materials.

Prepare Wilsonart Hard Surface adhesive seam kits.

- Purge cartridge and tip to ensure proper mixture of adhesive.
- Fill the seam to ½ full.
- Damming the ends will make this process easier.
- Slide the sheets together. Make sure there is adhesive squeeze out along the entire length of seam.

Clamp the seam together using selected clamping process; wood blocks or suction cups with spring clamps, bar clamps and/or other seaming system.



Deck Seams-45° Seam

Do not overtighten clamps.

- Overtightening will cause starved and weak seams.
- Remove fully cured hard surface adhesive squeeze out with surface leveler, orbital sander or router on skis.
- Do not remove hard seam adhesive with scraper, chisel, block planer or belt sander.

All 45° seams in the inside corner must be reinforced with a 5" (127.0mm) wide solid surface seam support (scab) adhered with Wilsonart Hard Surface adhesive. (Fig.20A)

- The seam support must cover the entire length of seam, front to back.
- Seam support must extend passed the front inside corner and be able to receive the first edge strip stacked on both sides of the inside corner. (Fig.20B)
- Overlap seam support 2.5" (63.5mm) on each side.
- Ensure complete adhesive coverage.
- Radius all inside corners minimum ¹/₂" (13mm) (Fig.20C)

Sand the finished seam to job qualifications. (See Finishing Section)

Solid substrate support is required for all 45° seams at inside corner area only.

• Must extend past first cabinet support on both sides of inside corner.







Figure 20B



Figure 20C



Drop Edges - Stacked

- See page 22 for drop edge requirements for Melange, Sonata, Crystal, Riverstone, Cityscape, Cosmic, Ice and Earthstone patterns.
- Sand backside of areas to be seamed.
- Dry fit edge strips and fasten hot melt blocks. (FIG. 21A)
- Clean surfaces to be seamed thoroughly with denatured alcohol and clean white shop rag.
- Purge cartridge and tip to ensure proper mixture of adhesive.
- Apply Wilsonart Hard Surface Adhesive and clamp with spring clamps at 2" - 3" (50.8 -76.2mm) intervals (FIG. 21B)
- Make sure there is adequate glue squeeze out along entire seam.
 Check carefully for voids.
- Do not sandwich other materials (wood, metal, laminate, etc.) between Wilsonart Solid Surface edges. Use these type of inlays in a routed groove.
- Flush trim drop edge. (FIG. 21C)
- Rout requested edge profile.

FAB TIP: 90° seam with the Movement Design Series will create visual inconsistencies.



Figure 21A



Figure 21B



Figure 21C



Drop Edges - Vertical

- Wilsonart Solid Surface Solids, Global Gourmet, Global Spa, Crystal, Tempest and Mirage patterns vertical and rebated vertical edge approved. (FIG. 22A-22C)
- Wilsonart Solid Surface Melange, Spectra and Riverstone patterns - vertical drop suggested with a ¹/16" rebate. (FIG. 22A-22C)
- Wilsonart Solid Surface Cityscape, Earthstone, Ice and Sonata patterns - rebated vertical edge required. (FIG. 22A-22C)
- Wilsonart suggests Miter Fold Drop Edge for Wilsonart Cosmic patterns. Stacked edges are also approved and provide a unique visual look.
- Wilsonart Cosmic offers the most variety in movement depending upon which Drop Edge Fabrication technique is used.

Vertical Edge Option

- Inspect the edge of the Wilsonart Solid Surface sheet for chip distribution variation.
- Dry fit edge strips.
- See both edges options below for remaining steps.

Rebated Vertical Edge Option

Using a bottom bearing rabbeting bit or a router with astraight edge, rout a ¼16" deep by ½" wide rabbet into the bottom side of the sheet □ Amana, Superabbet[™] part number 4936 □ For a Bull Nose, route a ¼16" deep by 1" wide rebate to accept a double vertical stack. (FIG. 22D) □ Pinske Rabbeting Solutions (See page 8-9 for details)

Both Edge Options

- Clean surfaces to be glued thoroughly with denatured alcohol and clean, white shop rag.
- Purge cartridge and tip for proper adhesive mixture.
- Apply Wilsonart Hard Surface Adhesive and clamp with spring clamps at 2" - 3" (50.8 - 76.2mm) intervals.
- Make sure there is adequate glue squeeze out along entire seam.

□ Check carefully for voids.



Figure 22A



Figure 22B



Figure 22C



Figure 22D



Drop Edges - Miter Fold Drop Edges

- Wilsonart suggests Miter Fold Drop Edge for Wilsonart Cosmic pattern.
- Place Wilsonart Solid Surface face down on a solid, flat work surface.
- Remove corner block and trim hinge tape.
- Clean miter area thoroughly with denatured alcohol and clean with white shop rag.
- Apply a 1/16" bead of Wilsonart Hard Surface Adhesive in the entire length of the miter fold seam. Also apply a 1/16" bead at one corner to be folded. (FIG. 23A)
- Fold up drop edge and clamp into place. Cam action clamps are suggested. (FIG. 23B) Clamps should be within 2" (50.8mm) from each corner and located every 12" (304.8mm). Place clamps ¹/₄" (6.4mm) above the face of the panel to ensure proper pressure.
- FAB TIP: Once drop edge is folded into place, do not allow the edge to separate from the deck.
- Fold up the end caps and secure in place with spring clamps or 3 way clamps. Clamps should be placed every 2" (50.8mm). (FIG. 23C)
 □ Place 3 way clamps ¼" (6.4mm) above the face of the panel.
- Adhesive squeeze out is required along entire length of seam and at all corners.
- Allow seam adhesive to cure completely before machining.



Figure 23A



Figure 23B



Figure 23C



Inside Corners

- Inside corners are subject to higher stress and therefore, require special reinforcement.
- One of the following reinforcement procedures must be used.
 Interlocking Corner Block Method: minimum 3" (76.2mm) x 3" (76.2mm) blocks or greater (FIG. 24A
 Interlocking Vertical Strips Method: Corner blocks. (FIG. 24B)
- Inside corner on a 45° seam requires seam support interlocking block method (Fig 20B) or corner block method (Fig. 24A). Drop edge seams must be staggered and interlocking.
- The finished inside corner must be routed to a minimum ½" (13mm) radius.
 A larger radius is better.

Outside Corners

- This method may be used up to 9" radius, requiring 1–3 strips placed on the angle. (FIG. 24C)
- For a radius larger than 9" refer to the Thermoforming Section on page 31.



Figure 24A



Figure 24B



Figure 24C



Wilsonart[®] Solid Surface Sink Installation

- Inspect sink for imperfections and verify color.
- Identify location
- Position sink using center-line dimensions. (FIG. 25A)
 - **FAB TIP**: Integral Wilsonart Sinks may be mounted over a seam using the same techniques listed below. Integral in conventional or PT Seams. (FIG. 25B)
- Multiple bowl configurations are permitted; however, special reinforcement guidelines are required. (See Installation Section, page 34-38)
- Place wooden blocks with hot melt glue to position sink securely during glue up. (FIG. 235)
- Rout hole in countertop directly under sink drain hole.

FAB TIP: Make sure hole is large enough for pipe clamp.

• Thoroughly clean areas to be seamed with denatured alcohol using a clean white shop rag.



Figure 25A



Figure 25B



Figure 25C



• Apply ample amount Wilsonart Hard Surface Adhesive to sink rim. (FIG. 26A)

Clamp with pipe clamp through the drain hole. (FIG. 26B)

FAB TIP: Use wooden spacers under clamp at sink flange and drain hole to prevent damage.

FAB TIP: Use clamp board (larger than the sink) under countertop to distribute clamping

- Check for seam kit squeeze out around entire sink area. Remove pipe clamps after seam adhesive hardens.
- Rout sink opening(s) using:
 Bowl flush trim bit (FIG. 26C)
 Bowl profile bit (FIG. 26D
 See pages 8, 9 for Tool Manufacturers
- Sand inside of sink for proper finish (See Finishing Section, pages 32-33).

FAB TIP: Wilsonart Solid Surface Sinks must be sanded to provide consistent finish. Failure to finish sinks often leads to customer dissatisfaction.

• Wilsonart Solid Surface vanity sinks are equipped with activated overflows. They are also available with non-overflow by special order.



Figure 26A



Figure 26B



Figure 26C



Figure 24D



General Cutout Requirements

These procedures are for cutouts that do not involve heat generating/producing appliances or items. See Cooktop Cutout requirements on page 28 for cutouts involving heat generating items installed in or over a cutout.

• Cutouts must be performed with a router only.

□ 12" x 12" or larger cutouts must be left on job site for color match repair material. □ Secure cutouts to inside of sink base cabinet.

- Inside corners of all cutouts must be radiused.
 - \Box Use 1/2" (9.5mm) or larger diameter bits.
 - □ See page 29-32 for Cooktop Cutouts requirements.
- Round over top and bottom edges of cutouts a minimum ¹/16" (1.5mm) radius.
- Remove any roughness, nicks and/or router "chatter" with 150-grit (80 micron) or finer sandpaper.
- Allow at least 1/8" (3mm) clearance space on all sides for drop-in sinks.
- Allow at least 1/16" (1.5mm) clearance space on all sides for outlets.
- Web supports required within 3" (76mm), but no closer than 1" (25mm) from the edge of the cutout.



Cooktop Cutouts

- Cutouts must be performed with a router only Adhere cutouts to inside of sink base cabinet.
- A minimum ¼" (6.4mm) gap is required between edge of cutout and cooktop. (FIG. 28A)
- Inside corners of all cutouts must have a minimum radius of 1/4" (6.4mm). (FIG. 28C)
- Corners of cooktop cutouts must be reinforced with 5"x 5" (128.5mm x 128.5mm) 45^o beveled Wilsonart Solid Surface corner blocks. (FIG. 28B & 28C)
- Roundover top and bottom edges of cutout minimum ¹/16" radius and ease all edges of reinforcing blocks.
- Sand sides of cooktop cutout to be free of roughness, nicks and router "chatter" with minimum 150-grit or finer sandpaper.
- Wrap entire cooktop opening with Wilsonart
 9 mil aluminum heat reflective tape.
 □ Place an additional layer of tape at all corners.
 □ Inform cooktop installer that tape must not be removed
 □ Nomex[®] will assist with heat resistance.
- Do not fold tape under the bottom of the cutout. (FIG. 28A)
- Tape must extend past the edge of cooktop flange. Trim excess (FIG. 28A & 28D)
- Never fasten cooktop to Wilsonart Solid Surface with mechanical fasteners.
 Use a wood block between Wilsonart Solid Surface and cooktop fasteners.
- If minimum cutout dimension listed above cannot be met, follow requirements for cooktop mantle or stainless steel ring.



Figure 28A



Figure 28B



Figure 28C



Figure 26D



Backsplash

- Use 100% silicone to adhere backsplash to countertop and wall.
 Apply continuous bead to bottom of backsplash (FIG. 29A).
 Dots of hot melt adhesive can be used to adhere backsplash to the wall while silicone cures.
- Remove excess silicone squeeze out, leaving only a small inside corner bead. (FIG. 29B)
- On full height backsplash, apply all Wilsonart Solid Surface fabrication guidelines. (FIG. 29C)

 ¼" (6.4mm) radiused inside corners
 Space for expansion
 Offset seams
 Cutouts must be made with a router (FIG. 29C)
 Attach backsplash with silicone. Do not hard seam to countertop.



Figure 29A



Figure 29B



Figure 29C



Cove Backsplash

- Cut Wilsonart Solid Surface backsplash to desired height. (FIG.30A)
 Allow 7/16" (11.3mm) for cove strip. (FIG. 30A)
- Cut a ⁷⁄₈" (22.23mm) strip for coving. (FIG.30A)
 □ Bevel ⁷⁄₈" (22.23mm) cove strip on a 45° angle.
 □ This will reduce router chatter.
- Cut ⁷/₈" (22.23mm) x ¹/₁₆" (1.6mm) rebate into the Wilsonart Solid Surface deck to accept cove strip. (FIG. 30A)
- Clean with denatured alcohol and clean white cloth.
- Adhere cove strip and backsplash to countertop with Wilsonart[®] Hard Surface adhesive.
 100% coverage is required.
 Backsplash squaring block (FIG. 30B)
- Ensure cove strip is tight against front edge of rebate and clamp with spring clamps and bar clamps.
 Gqueeze out is required the entire length of all seams.
- After adhesive has cured completely, rout cove strip.(FIG. 30C)
- Sand to desired finish

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



Figure 30A



Figure 30B



Figure 30C



Thermoforming

- To thermoform Wilsonart Solid Surface material, an oven that will heat the material is needed. (FIG. 31A)
- The sheet temperatures should be between 280° to 325°F (137.8° to 162.7° C) throughout the thickness during bending

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

• Thermoforming is not recommended or approved by Wilsonart for the Cityscape, Cosmic and Ice Collections. Please contact Wilsonart Technical Service Group at 800-433-3222 for further information.

Wilsonart Solid Surface material has a minimum bending radius of 3" (76.2mm).

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 ½" (13mm) sheets. (FIG. 31B)
- Heat Guns, Torches and Cal Rods will cause failure with Wilsonart Solid Surface countertops.

FAB TIP: Spot heating or localized heating will cause problems due to the temperature difference between the heated area and the unheated area. The stress build-up at the interface between the heated and unheated area will lead to cracking after the top is installed. (FIG. 31C)

Cool Down

 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.

AB |]]

Seaming

All seaming must be done after thermoforming.



Figure 31A



Figure 31B



Figure 31C

Procedures

- Wipe all sanding dust from countertop surface between grit changes.
- Darker colors will require more attention to obtain the desired final finish.
- Be careful when selling dark colors and/or semigloss or gloss finishes. Inform your customer of the possible extra care necessary to maintain a dark color and/or finishes higher than a standard Matte or Satin finish.

Products

 $3M^{\circ}$ Surfacing Abrasives -1- 800-364-3577 There are 13 micron grades. Micron grade 100, the most coarse, is approximately equal to a grade 150 in the U.S. standard system. The .3 micron grade, one of the finest grades, is equivalent to a 10,000 grit.

Scotch-Brite[®] by $3M^{\circ} - 1$ - 800-364-3577 3M's Scotch-Brite[®] Pad order of coarseness: 7447 Maroon (Fine), 7448 Grey (Very Fine) and 7445 White (Ultra Fine).

3M[®] Trizact[™] Abrasives - 1-800-742-9546 or 1-800-364-3577 in the U.S.A. 651-737-6501 outside the U.S.A.

May decrease the amount of sanding steps involved in finishing a countertop. With the Trizact[™] system, there is no need to finish the top with $3M^{\circ}$ Scotch-Brite[°] pads.

 $\begin{array}{l} \mbox{Mirka Abralon Pads}-1\mbox{-}800\mbox{-}843\mbox{-}3904 \\ \mbox{Recommended for dark colors.} \end{array}$

Sia -1-800-459-3534 www.sia-abrasives.com

Standards

U.S. standard system: 16 grit (coarsest) to 2,000 grit (finest)

- Trizact[™]: 60mx (coarsest) to 20,000mx (finest)
- Micron system: 100 micron (coarsest) to .3 micron (finest)
- Abralon: Medium (coarsest) to mirror fine (finest)



Figure 32A



Figure 32B



Abrasives Sanding Steps "Quick Steps" to Final "Finish"

For final finishing use the following steps located in the Abrasive Cross Reference Chart below:

Finish Type	USA Grit Scotch-Brite™	3M ™Micron Scotch-Brite™	Trizact Film™	Mirka Abralon	Sia**	Notes
Matte	180 220 7447	80u 60u 7447	268XA Green A35 268XA Blue A10/ 7447	N/A	120 Blue Disc 180 Blue disk 280 Blue Disc MAROON siafleece disc (wet) WHITE siafleece disk (dry)	Standard Finish Easy/Low Maintenance
Satin	180 220 280 7448	80u 60u 40u 7448	N/A	80u 60u Medium 360	120 Blue Disc 180 Blue Disc Soft Microhook Pad 280 Blue Disc 400 Blue Disc GREY siafleece disc (wet) WHITE siafleece disk (dry)	Slightly More Difficult Medium Maintenance
Semi Gloss	180 220 280 7445 7448	80u 60u 40u 7445 7448	268XA Green A35 268XA Blue A10 268XA Orange A5	80u 60u 40u Medium 360 Super Fine 1000	120 Blue Disc 180 Blue Disc Soft Microhook Pad 280 Blue Disc 400 Blue Disc 600 Blue Disc 1000 BlueDisc GOLD siafleece pad (wet) WHITE siafleece disk (dry)	Requires special customer instructions Requires Fabricator to refinish
Gloss	180 220 280 7448 7445 Buffer with Polishing Compound	80u 60u 40u 7448 7445 Buffer with Polishing Compound	268XA Green A35 268XA Blue A10 268XA Orange A5 568XA White CeO or buffer with polishing compound	80u 60u 40u Medium 360 Super Fine 1000 Mirror Fine 4000	120 Blue Disc 180 Blue Disc Soft Microhook Pad 280 Blue Disc 400 Blue Disc 600 Blue Disc 1000 BlueDisc Sia Speed Fast Cut Compound	Recommended for vertical surfaces only Requires fabricator to refinish

The gloss finish is not recommended for high-traffic areas; this would require a trained fabricator to maintain the finish.

** Use with Microhook Interface Pad



Jobsite Preparation

- Install web supports as required.
 1/2" or 3/4" MDF or particle board recommended.
 Place around perimeter of countertop and at each cabinet support.
- Webbing must be straight, flat and level after installation. If shims are used, they must be installed between the cabinet and the web frames, not directly under the countertop. (FIG. 34A)
- Do not install Wilsonart Solid Surface over a solid substrate, except at overhangs and 45° seams (See page 20 &35)

Shim Cabinet



Solid substrate support is required for all 45° seams at inside corner area only, and must extend past the first cabinet support on both sides of inside corner.

- Supports required every 24".
- Certain unsupported areas are in need of stronger frame material. These include inside corner cabinets, especially lazy susan, dishwasher openings, sink base fronts, desks and anywhere else that the cabinet is weaker than others. (FIG. 34B)
- Place web supports at both sides of all cutouts.
 Place supports no closer than 1" (25.4mm) and no further than 3" (76.2mm) from sides of cutout.
 □ See page 36 for additional web support requirements.
- Multiple bowl installations require special reinforcement to provide adequate support.
 Place web support along both sides of the bowl installation.

Place sink setters, solid wood, MDF or plywood supports between each bowl.
 Supports must rest on cabinet base or be

attached to cabinet base to alleviate flexing.

• Free standing stoves must be set min. ¹/₁₆" higher than surface of countertop.



Figure 34B



Overhangs

• Additional support is required when the countertop overhangs the cabinet. (FIG. 35A) Refer to the following chart to determine support required:

Overhang	Support Required
0 - 6" (0-152.4mm)	None
6 - 12" (152.4mm-304.8mm) Figure 39B	Brackets (corbels) (Under web frame support) <u>or</u> 3/4" plywood underlayment
12 - 18" (304.8mm-457.2mm) (Figure 39B)	Brackets (corbels) (Under web frame support) <u>and</u> 3/4" plywood underlayment
18 - 24" (457.2mm-609.6mm)	Brackets (corbels) <u>and</u> 3/4" plywood underlayment <u>and</u> supporting legs

• When brackets (corbels) are used, place them no more than 24" (609.6mm) apart. In addition, place brackets 12" (304.8mm) from open ends and against wall ends. (FIG. 35B & 35C)











Figure 35C



Web Support Layout

Recommended web support material includes: Medium Density Fiberboard (MDF), plywood, hardboard etc.



Figure 36A (Option 1)



Figure 36B (Option 2)

Securing the Countertop

- Use only 100% pure silicone to secure countertop to web frame.
 □ No construction mastic
- Use dime sized dabs every 18" (457.2mm) to 24" (609.6mm).)
 Secure all outside corners
 Do not run continuous beads
 Do not place silicone in the inside corners
- No mechanical fasteners should be used to fasten the countertop. Never screw, staple or nail into Wilsonart Solid Surface.

Fitting the Countertop

Provide minimum $\frac{1}{8}$ " (3.2mm) gap at all walls for every 12 feet of countertop.)

Scribe to wall as necessary.



Customer Satisfaction

Customer satisfaction is achieved by using a common sense approach. Treat your customer fairly. Word of mouth is the best and least expensive form of advertising. Quality assurance in fabrication and installation is of the utmost importance. The fabricator's reputation hangs in the balance.

The following are mandatory:

- Repair material affixed to cabinet under sink.

 ⁽¹⁾Do Not Remove" should be written on the material.
- Care and Maintenance information should be provided to end user. Information can be found at the Wilsonart website, www.wilsonart.com. (FIG. 38A)

Warranty Registration

• On-line registration through the B2B website (FIG. 38B & 38C)



Figure 38A

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Figure 38C

