

# ConfiaAd<sup>®</sup>

## Solid Surfaces

### Fabrication Manual



## Table of Contents

<b>1. Introduction</b>	4	<b>6.8 Seaming</b>	
<b>2. Safety Guidelines</b>	5	6.8.1 Recommended Tools	28
<b>3. Specifications</b>		6.8.2 Cuts for Seams	28
3.1 Composition	6	6.8.3 Seam Preparation	31
3.2 Dimension	6	6.8.4 Adhesive Application	32
3.3 Technical Data Sheet	7	6.8.5 Removing Excess Adhesive	34
<b>4. Handling &amp; Storage</b>		6.8.6 Seam Reinforcement	35
4.1 Handling	8	<b>6.9 Edge Detail &amp; Buildups</b>	
4.2 Storage	10	6.9.1 Drop Edge (Standard)	36
<b>5. Inspection</b>	11	6.9.2 Drop Edge (Rabbit)	41
<b>6. Fabrication</b>		6.9.3 Stacked Edge	42
<b>6.1 Tools &amp; Safety Equipment</b>	12	6.9.4 V-Grooving	44
<b>6.2 ConfAd® Adhesives</b>		6.9.5 Decorative Edge Profile	45
6.2.1 Product Type	13	<b>6.10 Inlays</b>	
6.2.2 Specification	14	6.10.1 Hard Inlays	46
6.2.3 Handling, Storage, Shelf Life	15	6.10.2 Soft Inlays	47
6.2.4 How to Use	17	<b>6.11 Backsplash</b>	
6.2.5 Adhesive Colors	17	6.11.1 Loose Backsplash	48
<b>6.3 Site Preparation</b>		6.11.2 Coved Backsplash	50
6.3.1 Site Inspection	18	6.11.3 Full Height Backsplash	57
6.3.2 Leveling	18	<b>6.12 Sink &amp; Bowl</b>	
<b>6.4 Templates</b>		6.12.1 ConfAd® Acrylic Sink & Bowl	58
6.4.1 Measurement Template	19	6.12.2 Non-Solid Surface Sink & Bowl	61
6.4.2 Luan Strip Template	20	<b>6.13 Support</b>	
6.4.3 Other Templates	21	6.13.1 Countertop Support	63
<b>6.5 Seam Placement</b>	22	6.13.2 Overhang Support	66
<b>6.6 Cutting</b>	23	<b>6.14 Finishing</b>	
<b>6.7 Cutouts</b>	24	6.14.1 Tools Required	67
6.7.1 Cooktop Cutout	25	6.14.2 Type of Finish	67
		6.14.3 The Finishing Chart	68
		6.14.4 Sanding	69
		6.14.5 Polishing	69

## Table of Contents

<b>7. Installation</b>		<b>13. MSDS</b>	89
7.1 Transportation	70	<b>14. Technical Bulletins</b>	
7.2 Site Preparation	70	14.1 Metallic Series	93
7.3 Dry Fitting	71	14.2 Marble Series	97
7.4 Field Seams	71	14.3 Lucent Series	103
7.5 Faucet Holes	72		
7.6 Sink & Bowl Installation	72		
7.7 Countertop Installation	72		
7.8 Backsplash Installation	72		
7.9 Completion	73		
<b>8. Thermoforming</b>			
8.1 Material Preparation	74		
8.2 Mold Preparation	75		
8.3 Oven Preparation	75		
8.4 Thermoforming Guidelines	76		
8.5 Thermoforming Checklist	77		
<b>9. Vertical Applications</b>			
9.1 Fabrication & Installation	78		
<b>10. Repair</b>	80		
<b>11. Care &amp; Maintenance</b>			
11.1 Everyday Care	81		
11.2 Stubborn Stain Cleaning	81		
11.3 Preventing Damage	82		
11.4 Removing Scratches and Cuts	82		
<b>12. Warranty</b>			
12.1 Limited Residential Warranty	83		
12.2 Limited Commercial Warranty	86		

## 1. Introduction

**ConfiaAd®** Pure Acrylic Solid Surfaces are ideal for residential and commercial applications such as kitchens, bathrooms, hospitals, restaurants, schools, airports, luxury buildings, and other areas where durable surfaces are needed.

**ConfiaAd®** Solid Surfaces are non-porous, stronger, longer lasting, hygienic, versatile, chemical/stain resistant, and easy to maintain/repair. It also comes with 10-year Limited Warranty for residential and commercial applications.

This manual is designed to provide basic guidelines for handling, storage, optimal fabrication, and installation of **ConfiaAd®** Solid Surfaces.

The information contained in this manual is deemed reliable, however **ConfiaAd®** Solid Surfaces, and its affiliates assume no legal liability of any kind. All information, including but not limited to recommendations, pictures, techniques, and or instructions are for reference purpose only and the user should take all necessary measures and precautions in order to confirm and test the adequacy for specific needs and applications.

## 2. Safety Guidelines

**“Safety is the most important thing.”**

All fabricators and Installers are required to maintain a safe work environment.

For preventing an accident, please follow the general safety rules as below.

- 1) To prevent injuries, always wear proper gear
  - Safety glasses (OSHA approved), Dust Masks, Ear/Nose Protection, Safety Shoes (non-slip), Hair-protective covering, and etc.
- 2) Wear appropriate apparel. Avoid wearing loose clothing, gloves, neckties, rings, bracelets, and other jewelry.
- 3) Keep work area clean, dry, well-ventilated, and well-lighted at all times.
- 4) Read instruction manuals before operating all tools and equipment. Learn and follow all manufacturers safety guidelines of all tools and equipment used in the shop.
- 5) Use the right tools. Don't force a tool to do a job for that it was not designed.
- 6) Tools exposed to water or moisture must be equipped with a **Ground Fault Circuit Interrupter (GFCI)**.
- 7) Keep tools in top condition for the safest performance.
- 8) Do not overreach.
- 9) Follow all OSHA and ANSI Safety guidelines.



## 3. Specifications

### 3.1 Composition

**ConfAd®** Solid Surfaces are made with a composition of MMA, PMMA, ATH and other additives.

Components	Portions (%)	Remarks
<b>Acrylic Resin</b>	37~42	MMA, PMMA
<b>Aluminum Trihydrate</b>	57~62	ATH
<b>Pigment</b>	< 1%	
<b>Additives</b>	< 1%	

### 3.2 Dimension

Length	Thickness	Width	Weight	Available Series
2,500mm (98")	6mm (0.25")	760mm (30")	20kg (44 lb)	Solid, Metallic, Granite
		930mm (36")	25kg (55 lb)	
3,070mm (120")	12mm (0.5")	760mm (30")	51kg (113 lb)	All Series
		930mm (36")	61kg (135 lb)	
3,680mm (145")	12mm (0.5")	760mm (30")	60kg (132 lb)	All Series
		930mm (36")	73kg (161 lb)	
		1,520mm (60")	120kg (264 lb)	
	19mm (0.75")	760mm (30")	95kg (209 lb)	Solid
930mm (36")		116kg (256 lb)		

※ The weight written in the table is for reference.

### 3.3 Technical Data Sheet

Properties		Typical Results	Test Method
Specific Gravity	Solid Colors	1.76	ASTM D792
	Other Colors	1.69	
Tensile Strength		35.4 MPa (5,140 psi)	ASTM D638
Tensile Modulus		8.91 GPa (1.29 x 10 <sup>6</sup> psi)	
Elongation		0.5%	
Flexural Strength		68.8 MPa (9,980 psi)	ASTM D790
Flexural Elastic Modulus		10.2 GPa (1.48 x 10 <sup>6</sup> psi)	
Hardness Test	Rockwell	83	ASTM D785
	Barcol	66	ASTM D 2583
Izod Impact Strength		21 J/m	ASTM D256
Ball Impact Resistance		> 96"	NEMA LD3-3.8
Water Absorption		0.02%	ASTM D570
Linear Thermal Expansion		3.3 x 10 <sup>-5</sup> /°C	ASTM D696
Flammability	Class	A	ASTM E84
	Flame Spread	15	
	Smoke Density	15	
Weatherability (1,000 hours)		ΔE < 5	ASTM G155
Color Stability (1,000 hours)		No Effect	NEMA LD 3-3.3
Boiling Water Resistance		No Effect	NEMA LD 3-3.5
High Temperature Resistance		No Effect	NEMA LD 3-3.6
Stain Resistance		Pass	ANSI Z124
Cleanability & Wear		Pass	ANSI Z124
Chemical Resistance		Pass	ANSI Z124
Food Zone Acceptability		Accepted / Listed	NSF 51
Fungus Resistance		No Growth	ASTM G21
Bacteria Resistance		No Growth	ASTM G22

## 4. Handling & Storage

### 4.1 Handling

ConfAd® Solid Surfaces are usually transported on pallets.

The pallet should be unloaded with appropriate lifting devices capable of handling the following dimensions safely.

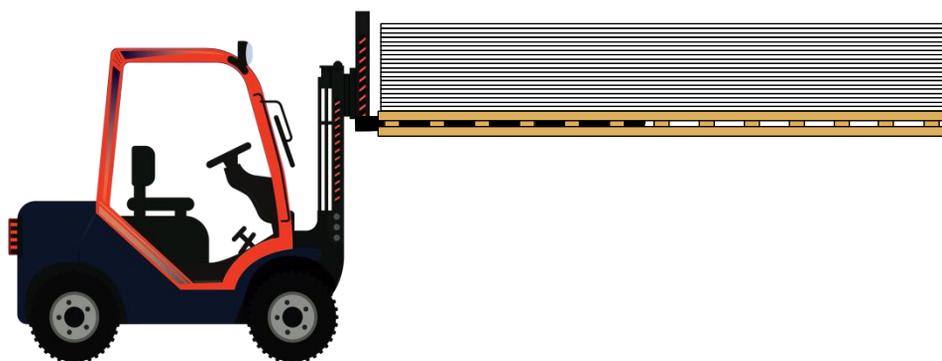
	ConfAd® Solid Surfaces	Empty Pallet	20 sheets + Pallet
<b>Length</b>	3,680mm (145")	3,700mm (146")	3,700mm (146")
<b>Width</b>	760mm (30")	760mm (30")	760mm (30")
<b>Height</b>	12mm (0.5")	125mm (5")	370mm (15")
<b>Weight</b>	60kg (132 lb)	40kg (88 lb)	1,240kg (2,735 lb)

※ Please note that depending on the dimensions and the number of sheets on the pallets, the pallet size and total weight is differ.

#### Handling with lifting equipment

When handling ConfAd® Solid Surfaces using forklifts, it is recommended to handle one pallet at a time. If you would like to lift multiple pallets, please check with the lifting equipment manufacturers for the limit weight.

※ **Forklifts should have minimum of 180mm (6') forks.**



## Manual Handling

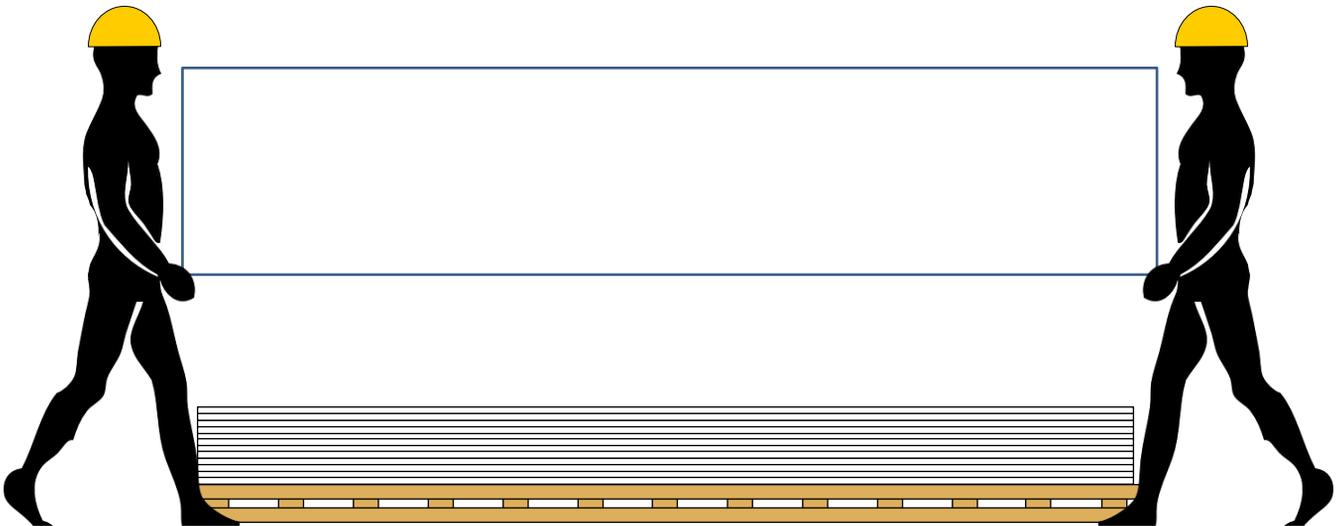
If lifting equipment is not available, ConfAd® Solid Surfaces can be handled manually. For your safety, strictly follow the specific procedures as below:

1. Always handle one sheet at a time.
2. Sheets should be handled on the edge and carry vertically.
3. Always wear safety gear (Gloves, Shoes, and proper back support).
4. Two people are required to handle a sheet.

## Note

For your safety, always follow the safety guidelines when handling ConfAd® sheets. Be cautious when handling at a temperature below 4°C (40°F).

The sheets could be brittle and get damaged.



## 4.2 Storage

ConfAd® Solid Surfaces should be stored inside, away from outside weather conditions.

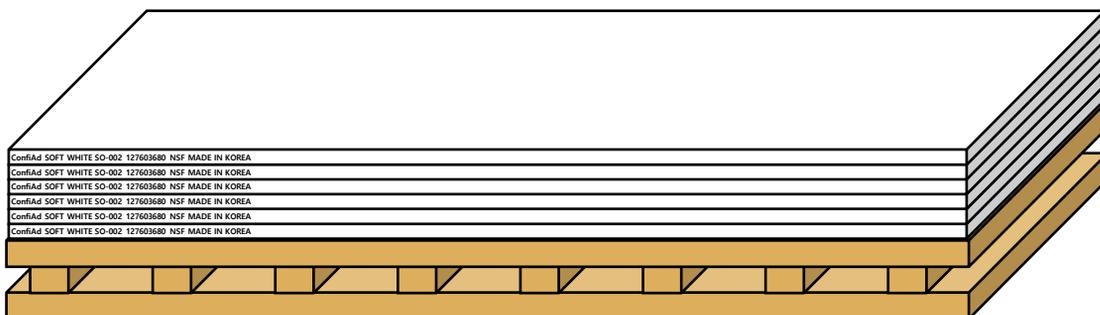
Sheets should be kept in a dry and well ventilated indoor area without the exposure to the moisture.

Optimum storage temperature is 15~23 °C (59~73 °F).

Sheets must be perfectly leveled and for preventing any warping and damages.

Store sheets for easy identification of colors and lot numbers.

Do not stack pallets over 3 pallets (20 sheets per pallet)



## 5. Inspection

Performing visual inspection for defects for every sheets is fabricators' responsibility. Please check all **ConfiaAd®** Solid Surfaces thoroughly before cutting, fabricating, altering, or before permanent installation.

**Note:** After the inspection of the slabs, if you find any **Product Non-Conformity(PNC)** that will increase fabrication time, please contact local **ConfiaAd®** Solid Surfaces distributor for further instructions.

**Jin Gwang Industries** will replace the defective sheets before the sheets are cut or modified in any way.

**Jin Gwang Industries** will not be responsible for any labor charges incurred for fabrication of such defective materials. Or any incidental loss or damages resulting from mishandling.

Inspection Standard		
Dimension	Length	2,500m, 3,070mm, 3,680mm / -0 ~ +20mm
	Width	760mm, 960mm, 1,520 / -0 ~ + 5mm
	Thickness	6mm , 12mm , 19mm / ± 0.3mm
Breakage & Cracks		None
Color Match		Same Lot
Warping		Less than 1.6mm
Pinhole, Voids, Scratches		None
Foreign Particle, Blotch, White Spots		Less than 3 visible particles per sheets
Discoloration		None
Uneven Sanding		None
Particle Distribution		Even Distribution
Back Side Pinhole		Over 12mm <sup>2</sup> on back side → None

## 6. Fabrication

### 6.1 Tools & Safety Equipment

The following is a list of recommended tools and safety equipment for **ConfAd®** Solid Surface fabrications.

#### Basic Tools

- Router (Trim, 1.5HP, 2HP, 3.5HP)
- Router Bits
- Table Saw
- Circular Saw
- Beam Saw
- Jig Saw (For Templates only)
- Drill
- Orbital Sander
- Random Orbital Sander
- Belt Sander (Stationary, Portable)
- **ConfAd®** Seamless Joint Adhesives Kit (Cartridge/Tube, Dispensers, Mixers)
- Silicone
- Caulk Gun
- Glue Sticks
- Hot Glue Gun
- Denatured Alcohol
- Clamps (Spring, Bar, G-Clamp)
- Straight Edges
- Hole Saw Kits
- Sand Papers
- Aluminum Tape
- Spray Bottle
- Carpenter's Square & Drywall Square
- Templates
- Air Compressor

#### Recommended Tools

- V-Grooving Machine
- CNC Machine
- Spindle Moulder (Shaper)
- Panel Saw

#### Safety Equipment

- First-Aid Kit
- Safety Glasses
- Dust Masks
- Gloves
- Waterproof Aprons
- Ear Plugs
- Safety Boots
- Back Supports

## 6.2 ConfiaAd® Adhesives

**ConfiaAd®** Seamless Joint Adhesive is world top quality acrylic resin based two-component adhesives designed for seamless bonding to **ConfiaAd®** Solid Surfaces and **ConfiaAd®** Quartz Surfaces.

For the best performance, we strongly recommend fabricators to use **ConfiaAd®** Seamless Joint Adhesives for jointing **ConfiaAd®** Solid Surfaces.

### Features

- Excellent Bonding Strength
- Longest Shelf Life (2 Years)
- Excellent Weatherability
- Phthalate Free
- Perfect Color Matching (1,100 colors)
- Smooth Sandability
- UV Stability
- Superior Workability & Productivity

※ Note: In case that the fabricators use other brands' adhesives, we do not provide any kinds of warranty or reimbursement for damages caused by the adhesives.

### 6.2.1 Product Type

**ConfiaAd®** Seamless Joint Adhesives have 2 different product types (Cartridge, Tube).

#### 1) Cartridge Type (10:1)

The cartridge type consists of 1 Cartridge and 2 mixing tips.

Using the cartridge dispensers, through the mixing tip, the component A and B are automatically mixed (10:1) and the hardening begins.



50ml Cartridge



75ml Cartridge



250ml Cartridge



485ml Cartridge



50ml Dispenser



75ml Dispenser



250ml Dispenser



485ml Dispenser

## 2) Tube Type (17:1)

The tube type (63ml) consists of 1 Aluminum Tube (Component A, 60ml) and 1 Plastic Tube (Component B, 3.4ml).

The fabricators need to manually mix component A and B pouring component A into plastic Tube that contains component B.

**Component B**



**Component A**

## 6.2.2 Specification

Specification	Cartridge Type			Tube Type		
	Standard Viscosity		High Viscosity	Rapid	Medium	Slow
	Rapid	Medium	Slow			
<b>Working Time at 22°C (72°F)</b>	8~13 min	11~16 min	25~30 min	8~13 min	14~19 min	25~30 min
<b>Fixture Time at 22°C (72°F)</b>	16~21 min	22~30 min	50~55 min	16~21 min	28~33 min	50~55 min
<b>Operating Temperature</b>	Max 120°C (248°F)			Max 120°C (248°F)		
<b>Gap Filling</b>	3mm (0.12")			3mm (0.12")		
<b>Mixed Specific Gravity</b>	1.20			1.16		
<b>Flash Point</b>	10°C (50°F)			10°C (50°F)		
<b>Shelf Life at 22°C (72°F)</b>	2 Years	2.5 Years		A (5 Years) / B (2 Years)		
<b>Flexural Strength</b>	218 kgf (3,200 psi)	230 kgf (3,400 psi)		204 kgf (3,000 psi)		
<b>Compressive Shear Strength</b>	204 kgf (3,000 psi)	218 kgf (3,200 psi)		204 kgf (3,000 psi)		
<b>Mix Ratio (volume)</b>	A : B = 10 : 1			A : B = 60 : 3.4		
<b>Mix Ratio (Weight)</b>	A : B = 10 : 0.9			A : B = 70 : 4.0		
<b>Viscosity (cPs) at 23°C (73°F)</b>	A (24,000 ~ 34,000) B (9,000 ~ 15,000)	A (40,000 ~ 60,000) B (9,000 ~ 15,000)		A (18,000 ~ 22,000) B (30 ~ 130)		

※ Without special request, standard viscosity and medium type is supplied.

## 6.2.3 Handling, Storage, Shelf Life

### 1) Handling

ConfAd® adhesive is flammable and can be dangerous if used improperly.

- Avoid contact with eyes, skin and clothing.
- Wash with soap and water after skin contact.
- Harmful if swallowed. Keep out of the reach of the children.
- In case of eye contact, flush with water for 15 minutes and get medical attention.
- Keep away from heat, sparks, open flame and other combustible materials.
- Before use or handling, consult the appropriate Material Safety Data Sheet.
- Avoid breathing vapor and use only with adequate ventilation.
- Wash hands thoroughly after handling.

### 2) Storage & Shelf Life

a) Store adhesives in a cool place away from direct sunlight.

- High temperature will reduce the shelf life of component A and B.
- Exposure of Component B above 38°C (100°F) rapidly diminishes the product's reactivity and thus it must be avoided.
- Refrigeration is acceptable for extending shelf life. However freezing should be prevented.
- The recommended measure for longer shelf life is maintaining storage temperature between 10~21°C (50~70°F) constantly.

b) Store the adhesives as follows

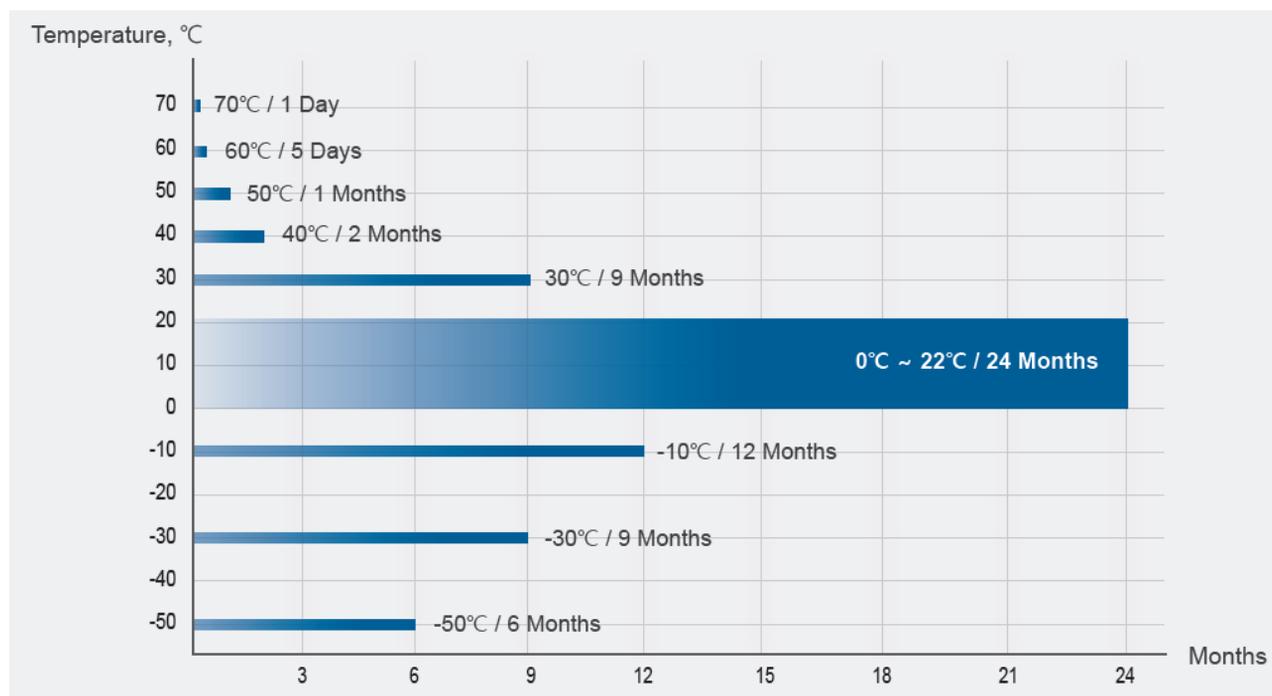
- Long period storage: horizontal direction.
- Short period storage: up right direction for 2 hours are suitable.

c) To extend shelf life longer, the adhesives may be stored in an air conditioned room or a fridge specially designed for the storage of flammable products.

- It is possible for an air bubble to be trapped in Component A or B. The gas can also be formed in Component B if it is subjected to high temperature during storage or shipping.
- In the event that gas or an air bubble were trapped in the cartridge, upright storage will allow them to reach to the top (outlet) of cartridge to be eliminated during the initial purge. (Be sure to purge gas and bubble in the cartridge by pointing up)

- d) Component B exposed to high temperature during transport or storage will be broken down and lose strength. This will generally show up as a slow, uneven or incomplete cure.
- Component B stored correctly will last for 2 years or more but will gradually lose reactivity.
  - The decomposition of Component B in high temperature can also release gas out of Component B.
- e) Bubbles may appear in the dispensed product and the compressibility of the gas may act like a spring compressing in each pull of the trigger producing fluctuations in the dispensing rate, off ratio (uneven cure) and drooling from tip.
- f) Transportation
- Needs to be shipped underdeck essentially in order to avoid high temperature (needs to be kept below 25°C)
  - Avoid long term transportation when shipping inland.

## Shelf Life according to the storage temperature



## Factors

- 1) Component "A": Segregation / Sedimentation
- 2) Component "B": Yellowing / Leakage

## 6.2.4 How to use

### 1) Cartridge Type

- ① Before using allow to warm to room temperature if cartridge is cold.
- ② Place the cartridge in vertical position for at least 30 minutes prior to use.
- ③ Load the cartridge into the dispenser in reference to directions and separate the nose plug from the cartridge nose.
- ④ Purge out a little bit of both components of adhesives to ensure proper mixture.
- ⑤ Attach and tighten a mixing tip to the cartridge nose.  
Pull the trigger twice to purge a little bit of adhesives from the mixing tip.
- ⑥ Apply adhesives to the seaming area. During curing time, the temperature may reach over 100°C (212°F). Be cautious while handling.  
Always wear safety glasses and disposable polyethylene gloves.
- ⑦ If the cartridge is not fully used, for storage, replace mixing tips to original cap.  
If the cartridge dispensing was paused more than 6~8 minutes, the mixing tip should be replaced because of the adhesive hardening in the mixing tip.

### 2) Tube Type

- ① Open Component-B tube. Trim tip 6mm (1/4") all non threaded part.
- ② Inject Component-A into Component-B tube. Hold Component-B tube upright to avoid spills. Slowly squeeze out around 2/3 air in Component-B tube.  
Inject Component-A into Component-B tube by squeezing.
- ③ Close Component-B tube before mixing. Close applicator cap tightly onto Component-B tube after squeeze out around 2/3 air in Component-B tube.
- ④ Hold Component-B tube upright. Mix adhesives thoroughly for around 5 min.
- ⑤ Trim Applicator cap starting just below the tip.
- ⑥ Discharge small amount from tube onto paper towel.  
Immediately fill joint 1/3 to 1/2 full. During curing time, the temperature may reach over 100°C (212°F). Be cautious while handling.  
Always wear safety glasses and disposable polyethylene gloves.

## 6.2.5 Adhesive Colors

For achieving seamless joint, we strongly request the fabricators to strictly follow our **ConfiaAd®** adhesive color recommendation.

Refer to the separate document (**ConfiaAd®** Adhesive Color Index for **ConfiaAd®** Solid Surfaces) at our website ([www.confriad.com](http://www.confriad.com)) or contact your distributors or contact [confiad@confriad.com](mailto:confiad@confriad.com).

## 6.3 Site Preparation

Before the templating, fabrication, and installing **ConfAd®** Solid Surfaces, it is very important to gather and verify all relevant site information for preventing any potential problems.

### 6.3.1 Site Inspection

The jobsite should be inspected for any obstacles from parking lot to the installation site.

- Accessibility from parking lot to installation site
- Check for distance and any obstacles
- Entrance height and width
- Wall condition
- Ceiling Height
- Cabinet Condition (Leveled and flat)
- Structures must be stable and secured
- Clear all debris and obstructions.
- Electrical/plumbing positioning
- Sufficient support
- Check interference between Cabinet doors/drawers and any overhang/edges.

### 6.3.2 Leveling

Prior to any templating, fabrication, and installing **ConfAd®** Solid Surfaces, all the cabinets should be leveled.

- Cabinets should be on the same plane.
- Cabinets should be leveled to 3mm (1/8") difference or less for every 3m (10').
  - ※ Up to 3mm (1/8") difference can be corrected by shimming the cabinets.  
If the difference is more than 3mm (1/8"), the cabinets should be reset.
- All Cabinets should be secured to the wall and the floor.

## 6.4 Templates

**Template is a most important part of the whole fabrication process.**

Before starting any fabrication of ConfiaAd® Solid Surfaces, build accurate templates.

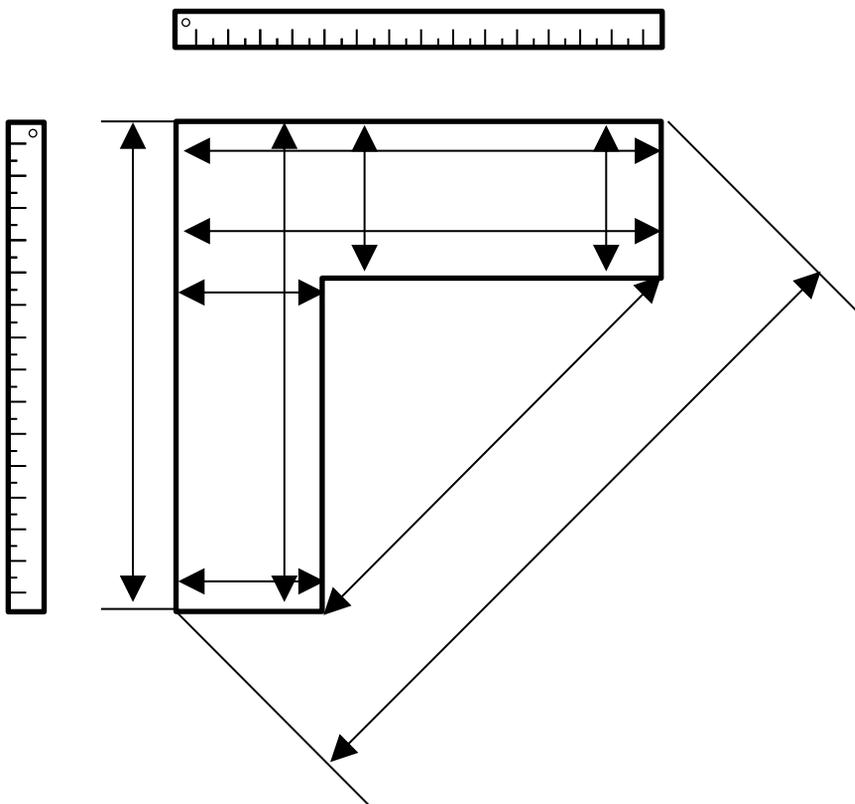
If the templates are perfect and fabricated according to the templates, installation will be problem free.

There are many different templates and choosing the one is up to the fabricators.

### 6.4.1 Measurement Template

The measurement template is used often by fabricators but it takes the longest time. Accurate measurements should be needed and it makes fabricators spend more time.

- Measure all sides, diagonal lengths, the mid points of the cutouts.
- Measure the inside dimensions of the base cabinets where the cutouts will be.
- Measure the curvature of the wall.
- Measure the clearance from the door and drawers
- Make sure to check with fabrication shop for other important measures.



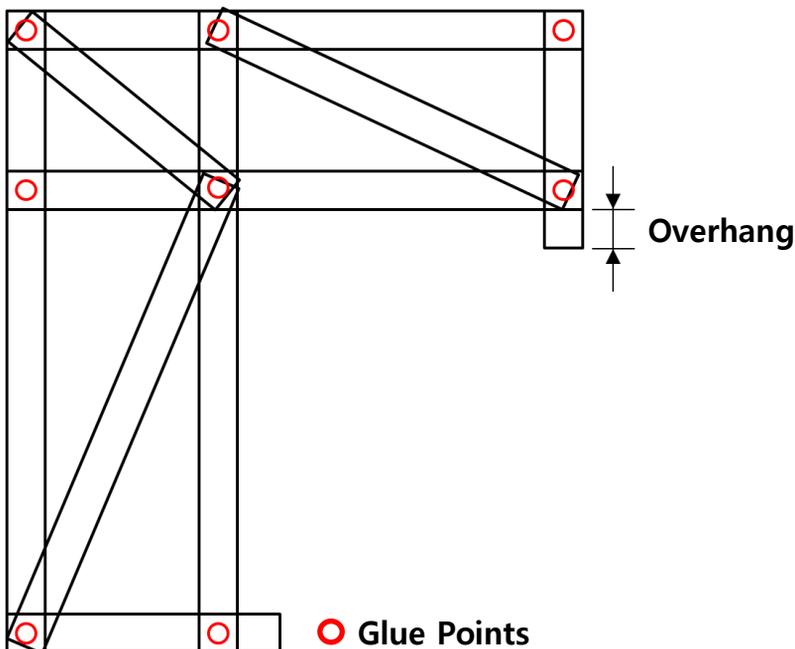
## 6.4.2 Luan Strip Template

The Luan Strip templating method is the most common one for the following advantages.

- Accuracy
- Rigid Template
- The Luan plywood 3mm (1/8") is readily available in most area.

### Procedure

- Make sure you have adequate 3mm (1/8") Luan plywood strips cut into 50mm (2").
- Tack strips around the perimeter of the cabinets with dots of hot glue to hold them in position.  
Tack these strips so they protrude past the face frames and end panels creating proper overhangs.
- By hot gluing strips from front to back, reinforce the template.
- Mark all importance information on the templates (Support, Plumbing, Electrical Ducting, the centers of your sink base, the center of cooktop, and other cutouts.)



### **6.4.3 Other Templates**

Cardboard or other materials like corrugated plastic can be used to make templates. Depending on the fabrication shop, the material and process will be different. Before proceeding, materials and processes should be verified with fabricators.

#### **Digital Template**

Currently there are a lot of various digital templates can be used to capture accurate Countertop size and configuration data.

These digital templating method have advantage of being able to process the digital information to state-of-the-art fabrication equipment such as CNC and water jets.

These digital systems can use lasers, digital cameras, or point to point digitizers.

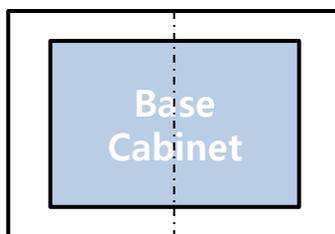
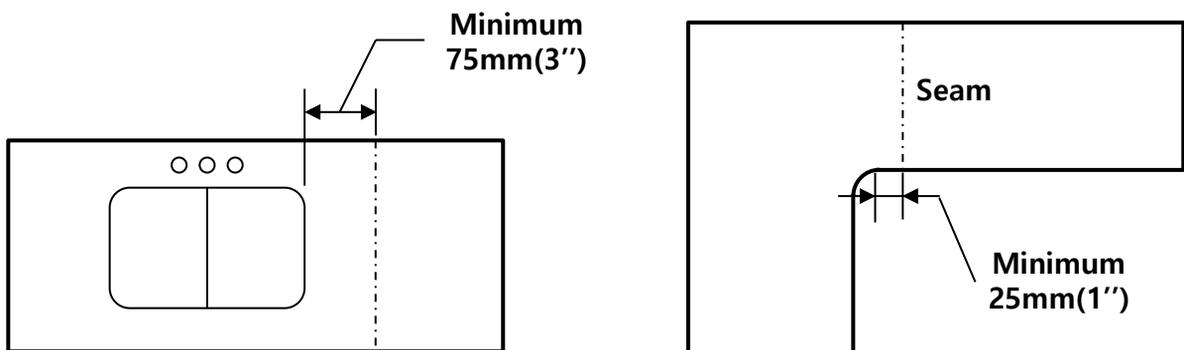
Although the initial investment may be considerable, the long term savings due to accuracy and productivity increase may be well worth the cost.

## 6.5 Seam Placement

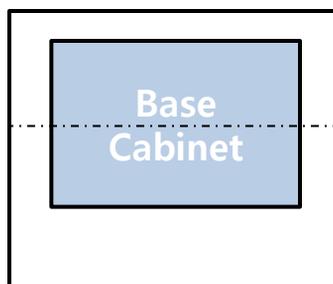
When fabricating and installing ConfAd® Solid Surfaces, there are many factors that may make it necessary to seam two pieces of material together.

Right seam placement will help you minimize the time and the use of material.

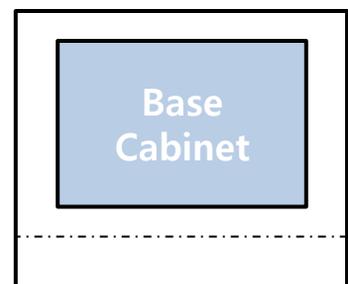
- Place seams to get maximum yield of the material.
- Minimize the number of seams.
- Seams should be avoided in the following areas
  - 1) Over the dishwasher or trash compactor.
    - ※ If a seam going through over a dishwasher, special support will be required.
  - 2) In direct Sunlight
- All seams should be at least 75mm (3") from any cutouts, such as sinks, cooktops, and other appliances.
- All seams need to be at least 25mm (1") from the radius of any inside corner.
- Although template technician will create seam placement, the final seam placement will be determined by the fabricator.
- There should be no seams through cooktop.
- There should be no seams on an overhang of a peninsula or an island.



**Correct**



**Correct**



**Incorrect**

## 6.6 Cutting

For preventing mistakes and wasting time, materials, and money, before you start cutting **ConfAd®** Solid Surfaces, plan and measure several times.

Although **ConfAd®** Solid Surfaces can be repaired unlike other surfacing materials, this will save your time and money.

### Recommended Tools to cut **ConfAd®** Solid Surfaces

- Circular Saw
- Table Saw (3 HP minimum)
- Panel Saw (5 HP recommended)
- Hand held routers (3 HP minimum)
- CNC Routers

### Tools must not be used to cut **ConfAd®** Solid Surfaces.

- Jigsaws
- Hacksaws
- Non-solid surfaces blades and bits
- Auger Bits

### Basic Cutting

- When cutting **ConfAd®** Solid Surface, it should be totally supported.
- Jigsaws and hacksaws should never be used on **ConfAd®** Solid Surface.
- When using a circular saw, only use for rough cutting.

Normally the accuracy of the cut will not be precise enough for fabricating **ConfAd®** Solid Surface.

Always use a router and straight edge for final cuts.

- When using table saw, check with the manufacturer for assistance because the accuracy of the cuts will vary depending on the equipment.  
Normally, the cuts will be accurate enough for edge buildups and backsplashes, but it will not be accurate enough for seaming two pieces.
- Although the accuracy of the cuts using panel saws is very accurate, make sure to check with the manufacturer for assistance and more information.  
The cuts will be accurate enough for general fabrications.
- When using a router, run the router left to right for all applications.
- All inside corners should have minimum 12mm (1/2") radius.  
※ The bigger radius, the better.

## 6.7 Cutouts

Using properly made accurate template is the one of the important part for the successful cutout in **ConfAd®** Solid Surfaces.

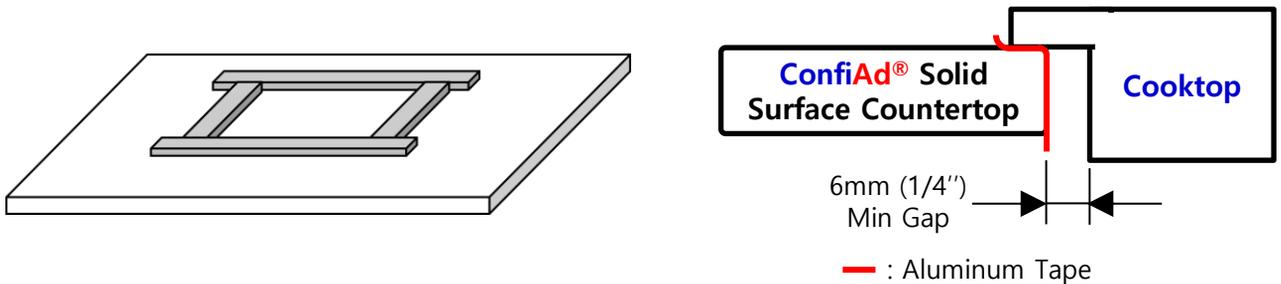
For accurate and faster cutouts, it is recommended to have templates for all **ConfAd®** Sinks & Bowls.

### General Cutout Requirement

- Cutouts must be performed with a router only.
- **Never use a jigsaw for cutouts**
- Measure the actual sinks, bowls, and cooktops for exact dimensions.
- Inside corners of all cutouts should be radiused.
- Round over top and bottom edges of the cutouts a minimum 3mm (1/8") radius.
- Remove any roughness (Sand the cutout using a 150 grit sandpaper).
- Minimum 50mm is required from the cutout to the front edge.
- Minimum 60mm is required from the cutout to the back-wall or backsplash.  
✂ For cooktop, minimum 100mm space is required for avoiding heat damage.
- Specially designed corner blocks must be used in all four corners for heat generating appliances.
- Apply heat reflection tape (aluminum tape) around the cutouts for heat generating appliances.

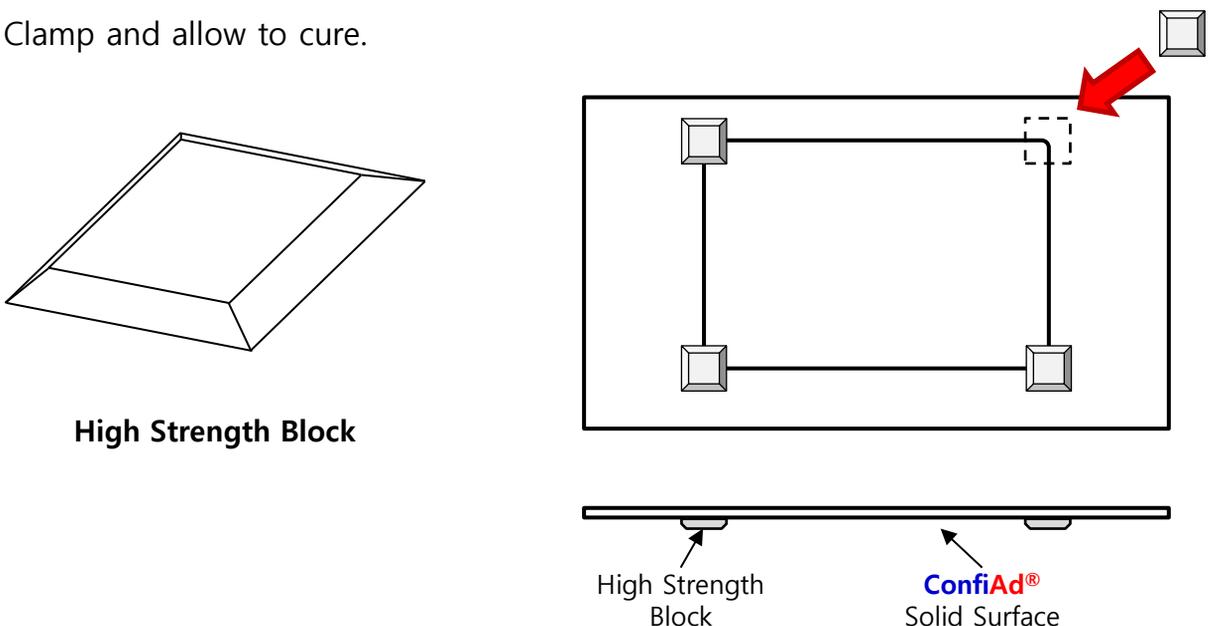
## 6.7.1 Cooktop Cutout

- Using appropriate template and template guide, cutout the opening.
- Always use a router to make cutouts. Never use a jigsaw.
- Run your router clockwise slowly.
- Inside corner of the cutout must be minimum 12mm (1/2").
- Minimum 6mm (1/4") gap is required between edge of cutout and cooktop.



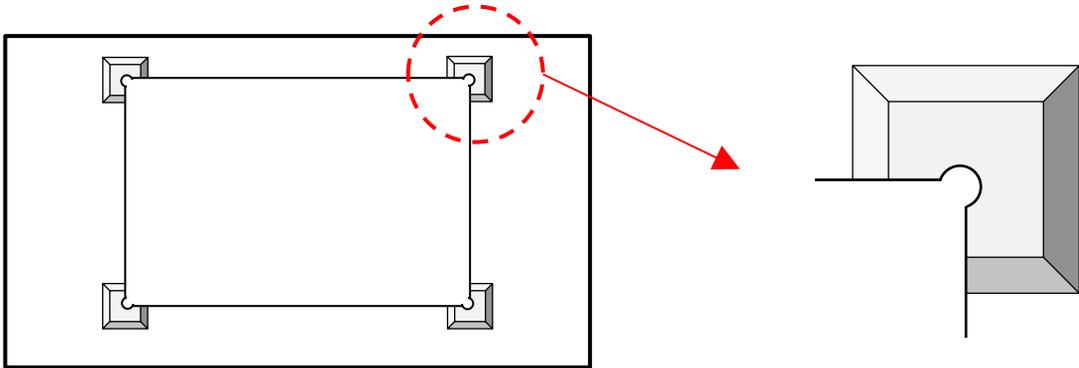
## High Strength Blocks

- Prepare the **ConfiaAd®** Solid Surface high strength blocks.
  - ※ The blocks should be minimum 100mm x 100mm (4" x 4") and all sides should be beveled at 45°.
- Line up the blocks to center the blocks in the corner.
- Adhere the blocks in the corner of the bottom of the cooktop cutout using **ConfiaAd®** Seamless Joint Adhesives.
- Clamp and allow to cure.



## Final Route

- After the adhesive is dry, cut off the extra materials of the corner blocks with a router. Only use routers for cuts
- Rout out four corners at a 45° until the bit touches where two lines meet. (Pencil marking recommended.)
- Use 19mm (3/4") router bit or bigger.



## Sanding

- Sand entire cutout with 150 grit sandpaper.
- Rout 3mm (1/8") radius on the top and bottom edges of the cutout.
- All side of cutout should be sanded until smooth.
- All chips and router chatters must be sanded out.
- After sanding, wipe the area with denatured alcohol.
- Apply heat reflection tape (aluminum tape) around the cutout.
- Do not fold the tape allowing it to hang down.

## Potential Problems

- Excessive Heat (Expansion & Contraction)
- Stress Points in the cutout
- Missing heat reflection tape
- Faulty cooktop
- Not enough space between the cooktop and the countertop
- Missing high strength corner blocks

## Prevention

- Use router for all cutouts.
- Use templates for the cutouts.
- Make the cutout as big as possible.
- Specially designed corner blocks (min 10mm x 10mm ) must be used in all four corners.
- All top and bottom edges of the cutouts need to have a minimum 3mm (1/8") radius.
- Make sure to sand all sides of cutout. Use 150 grit sandpaper.
- Apply heat reflection tape (aluminum tape) around the cutout.
- Do not fold the tape.
- Educate the customers in the proper use of the heat reflection tape including not to remove or alter the tapes.

## 6.8 Seaming

ConfAd® Solid Surfaces' biggest advantage is that the seamless joint is available if the fabricator use ConfAd® adhesives.

Even if the fabricator use ConfAd® adhesives for seaming, depending on the cuts, seam preparation, seaming procedure, fabricators' skill and others, the seam could be visible.

We recommend fabricators to strictly follow the seaming guide in this chapter for achieving seamless joint.

### 6.8.1 Recommended Tools

- Router (3 HP)
- Router Bits
  - 1) 1½" x 1½" Double Flute Bit
  - 2) Wavy Edge Bits
  - 3) CNC Bits
- Straight Edge
- Clamps
- Denatured Alcohol
- Clean Rags
- Release Tape including clear boxing tape
- Ski Router
- Vacuum
- Sandpaper (80 grits)
- Panel Saw (Optional)
- CNC Router (Optional)
- Pulling and tightening Equipment

### 6.8.2 Cuts for Seams

There are several ways to cut ConfAd® Solid Surfaces.

We highly recommend the following cutting methods.

- Mirror Cut
- Wavy cut
- Panel Saw
- CNC Router

## 1) Mirror Cut

Mirror cut is the most effective method for getting a good seam when the expensive machines (CNC, Panel Saw, and etc) are not available.

For this, cut the two pieces that will be seamed together at the same time.

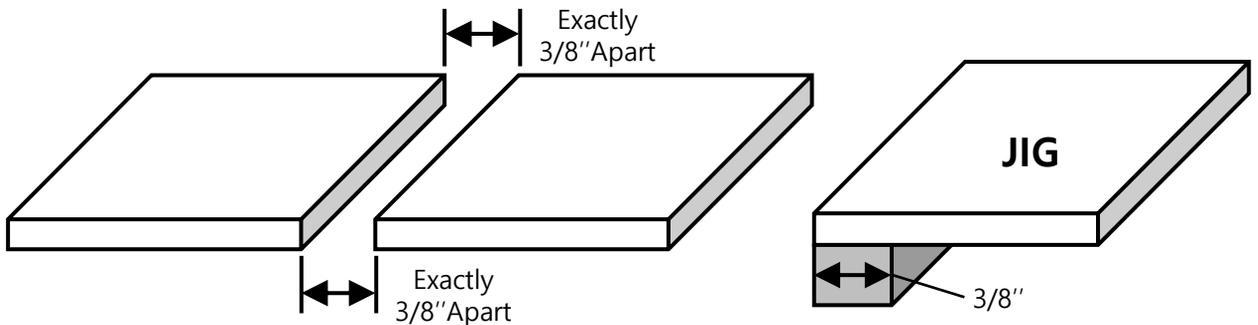
You will have the two pieces that are perfectly mirror matched up to each other.

### Directions

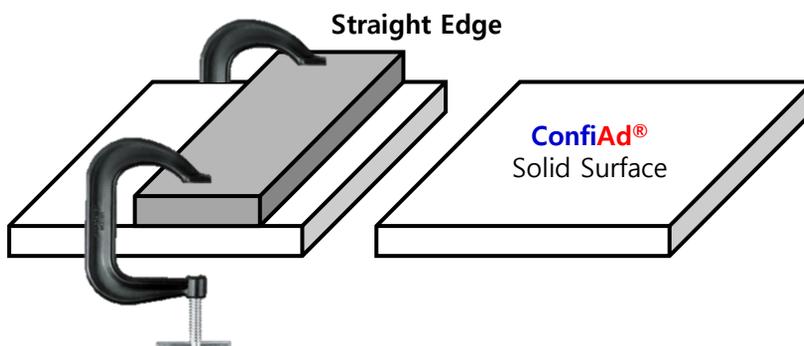
- Set the 2 pieces to be seamed together consistent 10mm (3/8") apart. Make sure that the 2 pieces are flat and parallel to each other.

※ Making "Jig" will save your time.

The "Jig" could be made from one piece of ConfAd® Solid Surfaces or any other material that will keep its form and will not contract or expand easily.



- Clamp the 2 pieces down to prevent any movement.
- Prepare 12mm (1/2") bit and a router.
- Place the straight edge on the left piece to be cut. The straight edge should be perfectly parallel to the gap.
- Measure the router base to determine the required straight edge offset for exact same amount of cut. The router bit should cut 1.5mm (1/16") from each pieces.
- Clamp the straight edge.
- Set the depth of the router to cut the materials.
- Run the router from left to right at constant speed and **DO NOT STOP once start.**



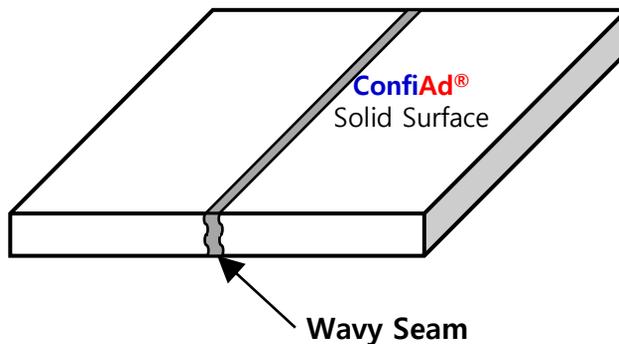
## 2) Wavy cut

Using wavy bit and a router that has special wavy base, the seam has 50% more gluing area and this method also helps align the seamed pieces.

The reinforcement strip (50~75mm) under the two pieces to be seamed is required.

### Directions

- Rout one piece with the low (thin) side of the base.
- Rout the other piece with the high (thick) side of the based. Check with bit manufacturer.
- This will make the two pieces to align to each other.



## 3) Panel Saw & CNC Router

If fabrication shop has special equipment such as panel saw and CNC router, use special blades and bits.

If fabricators do not use correct blades and bits, ConfAd® Solid Surfaces will have rough edges and chatter marks.

When making cuts using CNC router or Panel saw, any final cuts are not needed.

### ※ Note

You should never use the following tools to make final cuts before seaming.

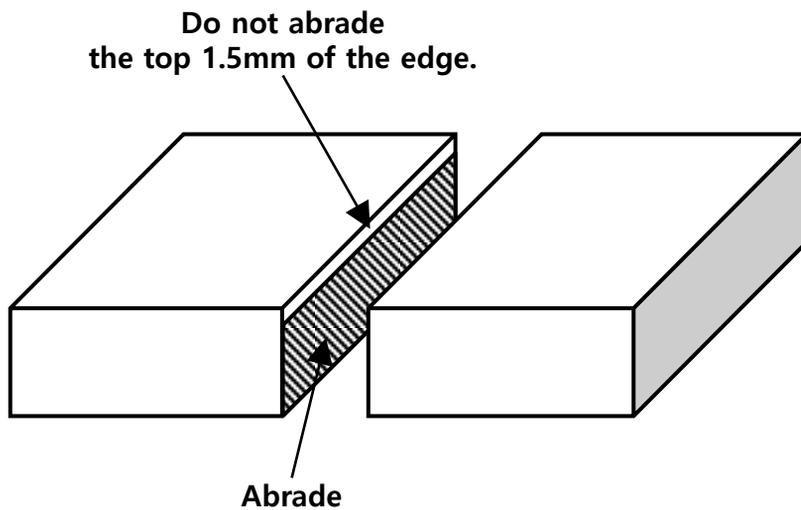
- Circular Saw
- Table Saw
- Router cutting each pieces separately
- Any other cutting method that the tool manufacturers are not specified.

### 6.8.3 Seam Preparation

For the invisible seam joint, good seam preparations are necessary.

#### Directions

- Abrade or sand the seaming edge using 150 grit or equivalent sand paper.  
※ In case of sensitive colors, finer sand papers need to be used (400 or 600 grit)
- Do not round off the top edges.
- Do not abrade the top 1.5mm (1/16") of the edge.
- Clean all pieces with denatured alcohol.



## 6.8.4 Adhesive Application

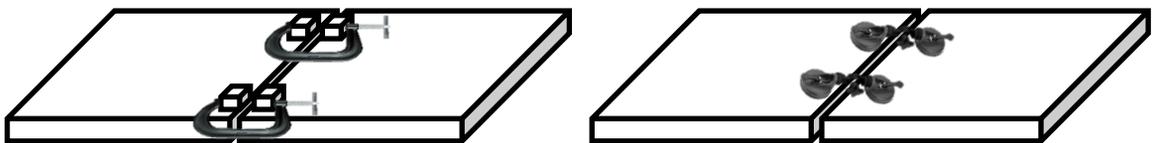
After cutting the pieces to be seamed and subsequent preparation of the edges, apply the adhesives with the following procedure and method.

### Directions

- ① Prepare **ConfAd®** Seamless Joint Adhesives kit.



- ② Place some release paper or plastic foil under the seam to prevent surplus adhesive onto workbench.
  - ※ Scotch Tape, Wax Paper, and etc.
- ③ Wipe 2 seam edges with denatured alcohol. Remember to wipe in one direction. For avoiding the contamination of the seam, remove printed letter and number on the back side through the seam area.
- ④ Once you wipe the material down, do not touch the pieces. The oils from your skin may discolor the seam.
- ⑤ Choose the clamping method
  - Wood Blocks and Clamps
  - Suction Cups and Clamps
  - Vacuum Clamping system (Paralign)



- ⑥ Make sure that the sheets are flat and have good alignment.
- ⑦ Set the two seam pieces apart about 3mm (1/8").
- ⑧ Place **ConfAd®** Seamless Joint Adhesives Cartridge in dispenser and purge small amount of adhesive before setting the mixing tip. This ensures that both components are present and dispensing properly.
  - ※ Strictly follow the **ConfAd®** adhesive color index for choosing best glue colors.
- ⑨ Set the mixing tip to the cartridge and purge a small amount of adhesives.

- ⑩ Pour the Adhesives into the gap and fill it. If there are any air holes or lapses go over the entire seam again with second bead.
- ⑪ Pull seam together with chosen clamping method.
  - ※ **The optimal joint width is 100~120 $\mu$ m.**
  - ※ Do not apply too much pressure to the seam because this may squeeze all the adhesive out. And it will cause the weak seam.
- ⑫ Allow to cure 25 ~30 minutes at 22°C (72°F).
  - ※ Cure time is air temperature and sheet temperature dependent. The higher temperature is, the shorter curing time will take.
- ⑬ Once fully cured, it can be sanded down.

### ※ Tip

- In that event that a gas or air bubble is trapped in the cartridge, upright storage should allow it to reach the top (outlet) of cartridge to be eliminated during the initial purge.
- Apply smooth even strokes when dispensing
  - Maintain constant feed and pressure using the full stroke of the trigger.
- The measurement of seam width
  - Use wide stand microscope. "PEAK" is recommended.
  - A4 paper (100 $\mu$ m) and Name card (200 $\mu$ m) are second choice.

### ※ Note

- Refer to the "Chapter 6.2.4 How to use" for more information including how to use "Tube Type Adhesives".

## **6.8.5 Removing Excess Adhesive**

Once the seam adhesive is fully cured, the excess glue can be sanded down.

Since the adhesive may shrink during the curing stage, if the fabricator remove the excess glue when it is still wet, the void lines in the seam could be happened.

Make sure again that the adhesive is fully cured.

Removing excess adhesive can be done by ski routing.

### **Ski Routing**

The ski routers can be purchased or made using a trim router, 1/2" bit, and skis.

※ Skis could be made from wood or **ConfAd<sup>®</sup>** Solid Surfaces.

Attach the skis to the bottom of the router base.

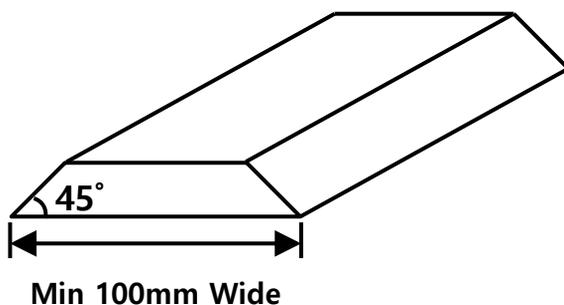
### **Directions**

- ① Run the ski router over the cured seam adhesive to remove excess glue.
- ② Once the excess seam glue is routed off, sand the area with 150 grit sand paper. Do not stay in one area long to prevent creating valley on the top.
- ③ Remember to feather out the seam area to prevent high and low spots. It is recommended to sand an area of about 18"~20" evenly.

## 6.8.6 Seam Reinforcement

All ConfAd® Solid Surface seams must be reinforced by installing seam plates on the seams.

Seam plates should be at least 100mm (4") wide made from ConfAd® Solid Surface with 45° angle cut on both side edges to prevent any stress.

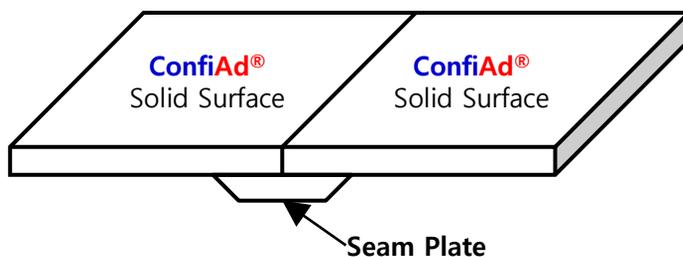


### Directions

- ① Make sure that seam plates do not rock due to the excess glue from the seam.
- ② Make sure that the seam plates go the full length of the seam.
- ③ Make sure that there is no any space between the front edge buildup and the seam plate.
- ④ Sand both the seam plates and the top prior to applying adhesives.
- ⑤ Center the seam plates so that it covers 50mm (2") on both sides of the seam.
- ⑥ Clean with denatured alcohol.
- ⑦ Apply adequate amount of ConfAd® Seamless Joint Adhesives to both surfaces for 100% coverage and place seam plate over the seam.
- ⑧ Clamp the seam plate to the countertop.

### ※ Note

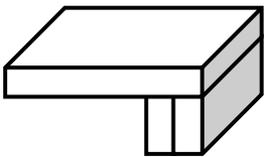
- Do not use thinner seam plate than the countertop.  
For 12mm thickness top, use 12mm or thicker seam plate.



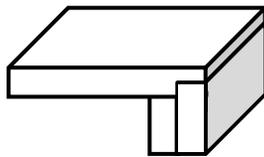
## 6.9 Edge Detail & Buildups

Although there are many different edge buildup methods, we recommend the following three effective and verified edge buildup methods for ConfiaAd® Solid Surface.

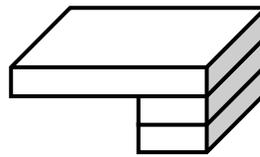
- Drop Edge (Standard, Rabbet)
- Stacked Edge
- V-Grooving



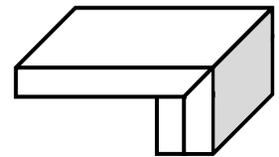
**Drop Edge  
(Standard)**



**Drop Edge  
(Rabbet)**



**Stacked  
Edge**



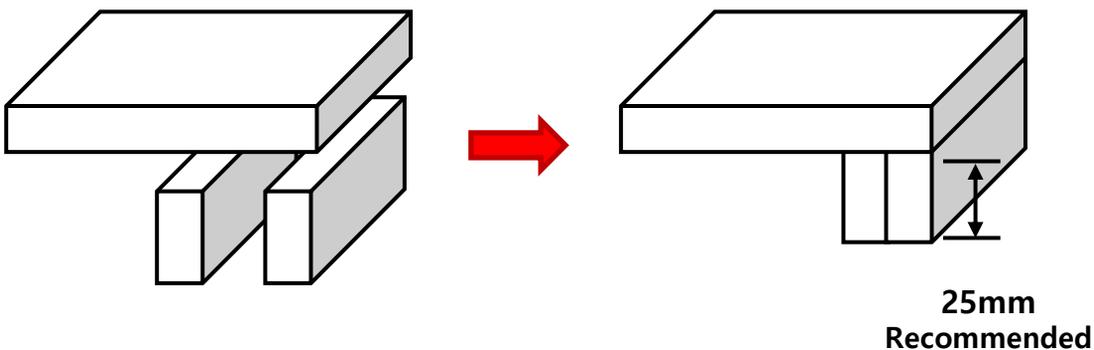
**V-Grooving**

### 6.9.1 Drop Edge (Standard)

Drop Edge Buildup is one of the most frequently used method for building edges because this method creates only 1 seam in the front edge. If fabricated correctly, the seam line will not be shown.

For building Drop Edge, you will need 2 strips of ConfiaAd® Solid Surfaces cut in desired width (25mm = 1" is recommended). One is for the front and another strip is for adding the strength seamed up against the front strip.

※ Make sure to check for all defects underside of the sheet and always sand the underside of the sheet prior to apply adhesives.

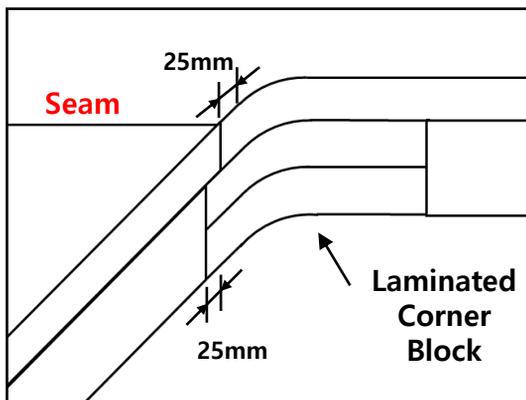
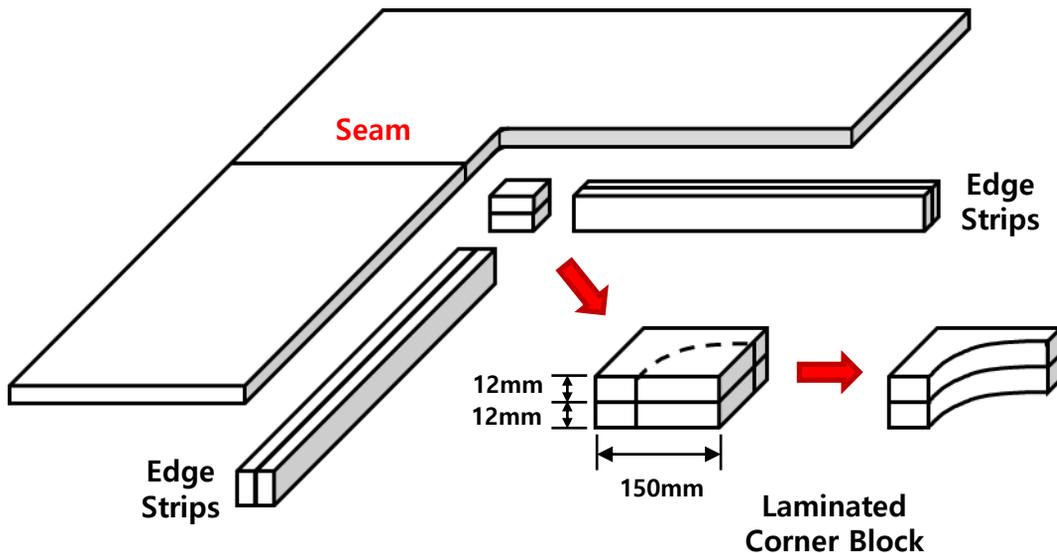


## 1) Inside Corner Buildup (Corner Block)

There are mainly 2 ways for the inside corner buildup.

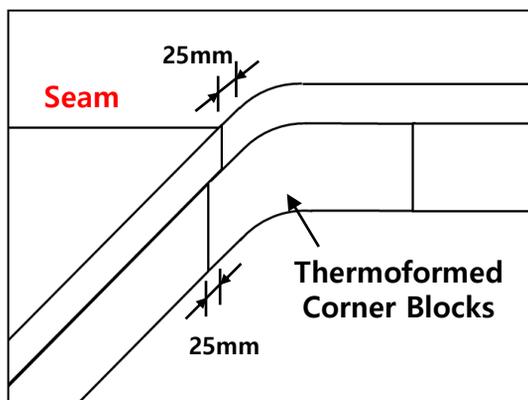
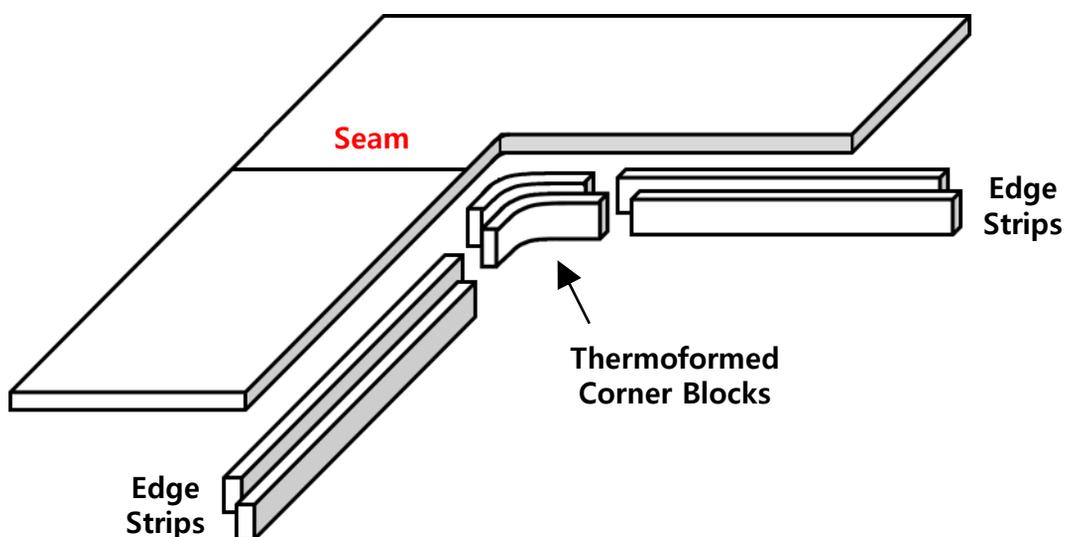
### a) Laminated Method

- ① Cut 2 pieces of the same color into 150mm x 150mm (6" x 6"). The pieces should be 12mm (1/2") thick.
- ② Sand, glue using **ConfAd®** Seamless Joint Adhesives, and clamp the 2 pieces. Then it forms a square corner block.
- ③ Route the corner block.
- ④ All inside corners should have minimum 12mm (1/2") radius. The bigger radius, the better
- ⑤ Applying **ConfAd®** Seamless Joint Adhesives, glue the block underside of the countertop.
- ⑥ The end of corner block must be at least 25mm (1") from the seam in the countertop and the seam should be at least 25mm (1") from the radius of the inside corner.



## b) Thermoformed Method

- ① Thermoform 2 strips for the inside corner buildup.
- ② Refer to **Chapter 8 “Thermoforming”** on page 74 for how to thermoform.
- ③ All inside corners should have minimum 12mm (1/2”) radius. The bigger radius, the better
- ④ When applying **ConfiaAd®** Seamless Joint Adhesives, glue the 2 strips and make the thermoformed corner block. And glue the blocks underside of the countertop.
- ⑤ The end of corner block must be at least 25mm (1”) from the seam in the countertop and the seam should be at least 25mm (1”) from the radius of the inside corner.

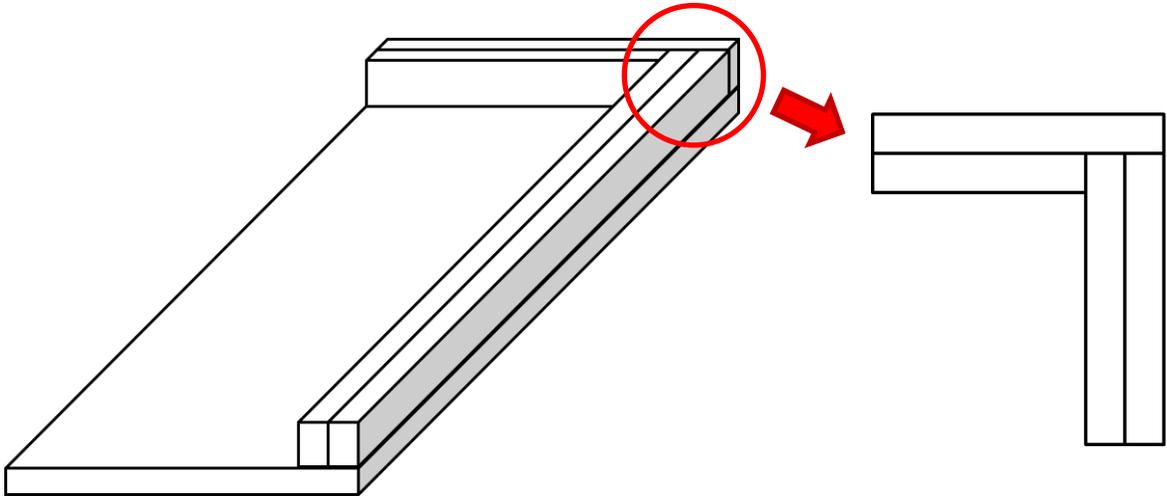


## 2) Outside Corner Buildup

Like the insider corner buildups, an outside corner can be formed using "Laminated Method (Corner Block)" or "Thermoformed Method".

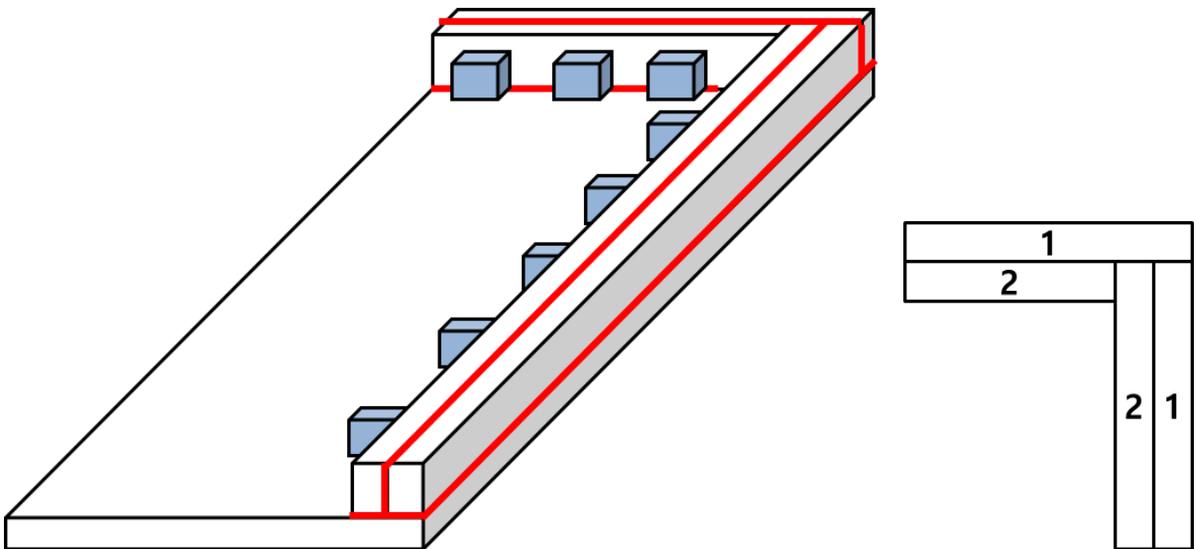
However if the radius is not big, just use the strips.

※ Outside corners are very visible, try to minimize the seams.



## 3) Directions

- ① Cut the strips to desired width. (25mm = 1" is recommended)
- ② Check for any defects to the underside of the sheet and eliminate all defects.
- ③ Dry fit all the buildup pieces and check the seam lines.
  - ※ When the pieces are clamped down, if the seam line is visible, the seam line will be visible after glued together.
- ④ Use small wooden blocks to set guide and fix them every 300mm (12" )with hot glue.
- ⑤ Sand all the pieces with 150 grit sand paper and wipe down with denatured alcohol.
- ⑥ Apply **ConfAd®** Seamless Joint Adhesives, and clamp all the pieces down.
  - ※ Seam #2 pieces first and then apply the adhesives on #1 pieces.
  - ※ Always use spring clamps every 76mm (3") for enough pressure.
  - ※ When Clamping the strips, make sure that they are all perfectly aligned at 90 degrees to the countertop.
- ⑦ Once the adhesives are fully cured, route off the excess materials.



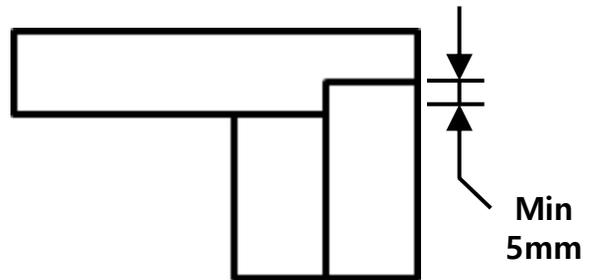
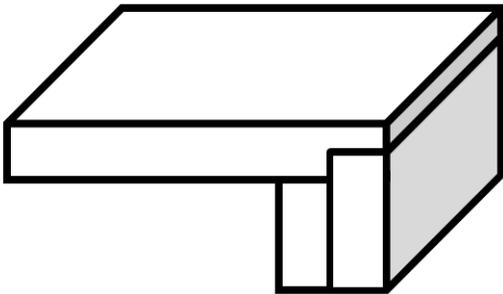
**— : Seaming Point**

## 6.9.2 Drop Edge (Rabbet)

Drop Edge (Rabbet) Method is recommended for the series that have big chips because of the particle segregation.

### Directions

- ① Rout a rabbet at least 5mm at the bottom of the front edge.
- ② Cut the required number of strips to desired width.
- ③ Sand all the pieces with 150 grit sand paper and wipe down with denatured alcohol.
- ④ Dry fit all the buildup pieces and check the seam lines.
- ⑤ Apply **ConfiaAd®** Seamless Joint Adhesives, and clamp all the pieces down.
  - ※ Seam the front edge and then apply the adhesives on second strip for support.
  - ※ Always use spring clamps every 76mm (3") for enough pressure.
  - ※ When Clamping the strips, make sure that they are all perfectly aligned at 90 degrees to the countertop.
- ⑥ Once the adhesives are fully cured, route off the excess materials.



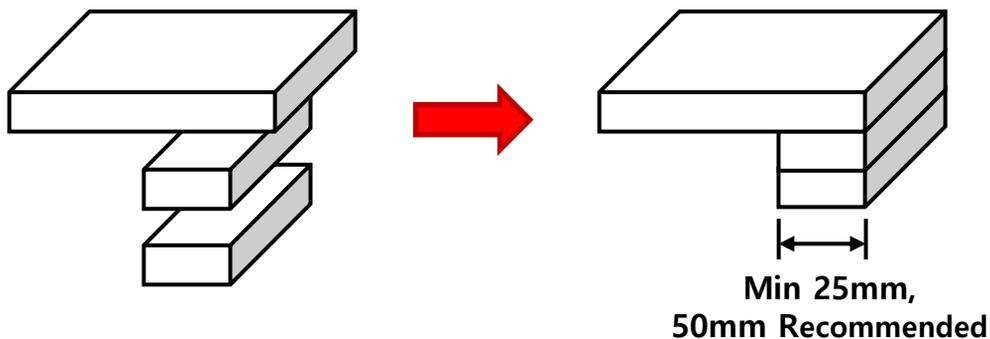
## 6.9.3 Stacked Edge

Stacked Edge Buildup is also widely used method because of its strength.

However, since this method creates 2 seam in the front edge, you have to strictly follow the fabrication procedure. Unless the seam lines will be shown.

For building Stacked Edge, you will need cut 2 strips of ConfAd® Solid Surfaces in minimum 25mm (1") width (50mm = 2" is recommended) and stack the strips on top of each other for creating the thickness.

※ Make sure to check for all defects underside of the sheet and always sand the underside of the sheet prior to apply adhesives.

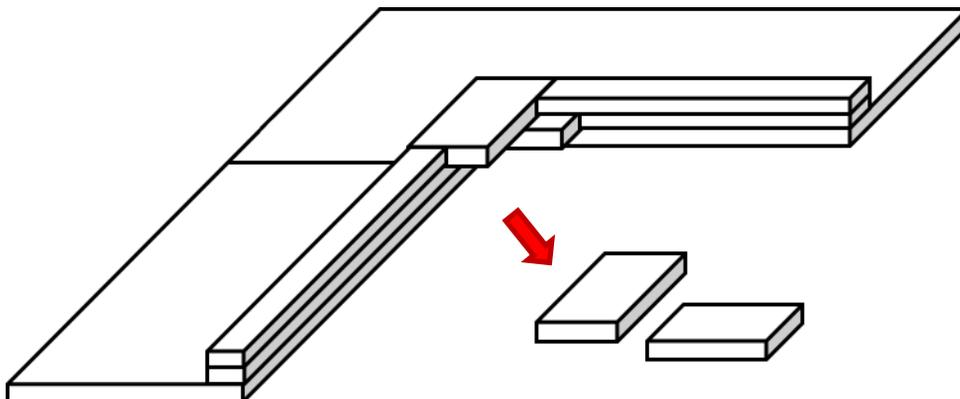


### 1) Inside Corner

- ① Cut 2 pieces of the same color into 150mm x 100mm (6" x 4").
- ② Overlap the pieces in opposite directions and fit them up against inside corners.
- ③ Sand, glue using ConfAd® Seamless Joint Adhesives, and clamp the 2 pieces.
- ④ All inside corners should have minimum 12mm (1/2") radius.

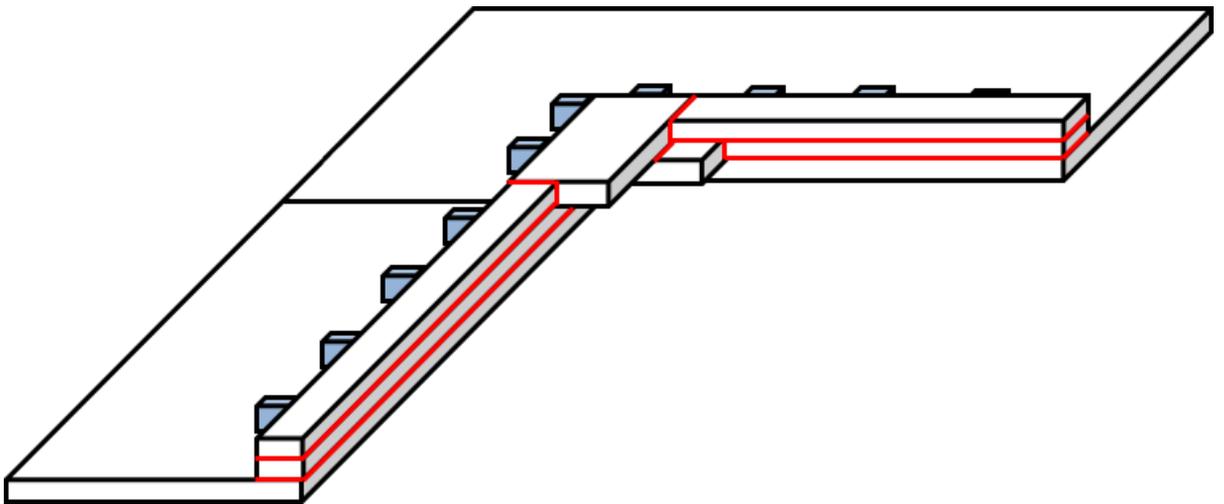
The bigger radius, the better.

※ The end of the block must be at least 25mm (1") from the seam in the countertop and the seam should be at least 25mm (1") from the radius of the inside corner.



## 2) Directions

- ① Cut the strips to desired width. (25mm = 1" is recommended)
- ② Check for any defects to the underside of the sheet and eliminate all defects.
- ③ Dry fit all the buildup pieces and check the seam lines.
  - ※ When the pieces are clamped down, if the seam line is visible, the seam line will be visible after glued together.
- ④ Use small wooden blocks to set guide and fix them every 300mm (12" )with hot glue.
- ⑤ Sand all the pieces with 150 grit sand paper and wipe down with denatured alcohol.
- ⑥ Apply **ConfAd®** Seamless Joint Adhesives, and clamp all the pieces down.
  - ※ Always use spring clamps every 76mm (3") for enough pressure.
  - ※ When Clamping the strips, make sure that they are all perfectly aligned.
- ⑦ Once the adhesives are fully cured, route off the excess materials.



— : Seaming Point

## 6.9.4 V-Grooving

V-Grooving is very easy, fabrication time saving, hidden seam method for edge buildups. However, the very expensive machines and equipment are needed.

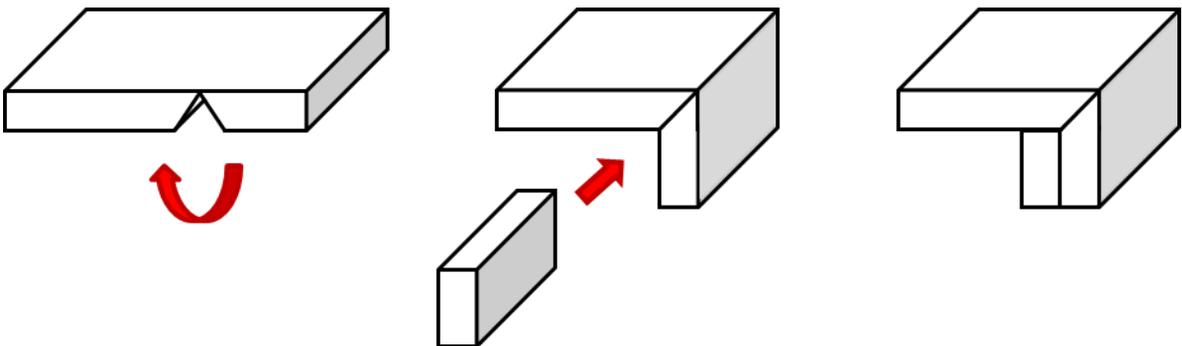
In this chapter, we briefly go over the basic of V-grooving edge buildups. For more details, always consult with the V-Grooving Machine manufacturers.

### Directions

- ① V-Grooving machines rout "V" in the **ConfiaAd®** Solid Surface countertop, so that it can be 90° folded.
- ② After the "V" is routed in the material, wiping the seaming area down with denatured alcohol.
- ③ Apply a 3mm (1/8") bead of **ConfiaAd®** Seamless Joint Adhesives in the bottom of the groove.
- ④ Slowly fold the pieces to close the groove and clamp down.  
※ Never re-open the joint.
- ⑤ Once the **ConfiaAd®** Seamless Joint Adhesive is fully cured, you may start the decorative route and polishing.

### ※ Note

- For adding strength, a additional piece needs to be seamed behind the front piece.
- All inside corners should have minimum 12mm (1/2") radius.  
The bigger radius, the better
- For inside corner, use 150mm x 150mm (6" x 6") **ConfiaAd®** Solid Surface corner block.



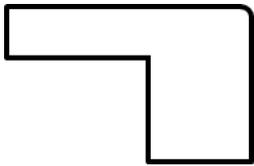
## 6.9.5 Decorative Edge Profile

Decorative Edges adds beauty and style to **ConfAd®** Solid Surface countertops. So, most of the countertops have decorative edge profile.

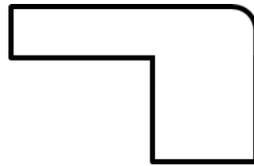
The commonly used edge profiles are Eased Edges, Round Edges(1/4", 1/2", 3/4"), Bull Nose (Full, Half), Bevel (Chamfer), Ogee, Cove, Receding, and etc.

### ※ Note

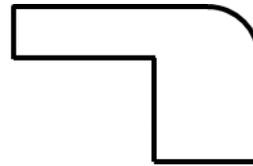
- Always consult with the specific decorative bit manufacturers for special instructions and details.
- **ConfAd®** Solid Surface will not be responsible for any edge damages and failures due to faulty bits, flawed design of the edges, and other related circumstances.



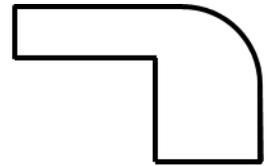
Eased



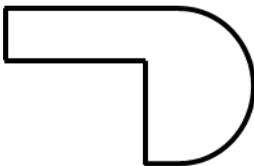
Round (1/4")



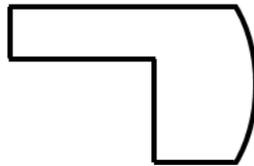
Round (1/2")



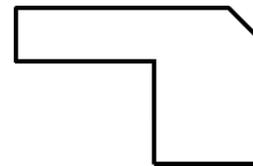
Round (3/4")



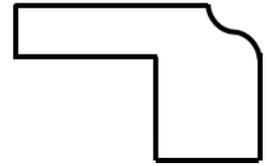
Bull Nose (Full)



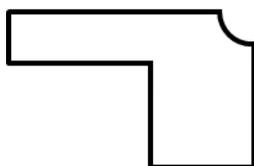
Bull Nose (Half)



Bevel



Ogee



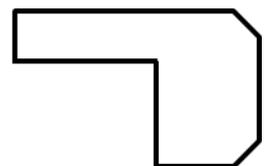
Cove



Receding



Round  
Top & Bottom



Bevel  
Top & Bottom

## 6.10 Inlays

Inlays can add beauty and value to **ConfAd®** Solid Surface countertops.

There are two types of Inlays.

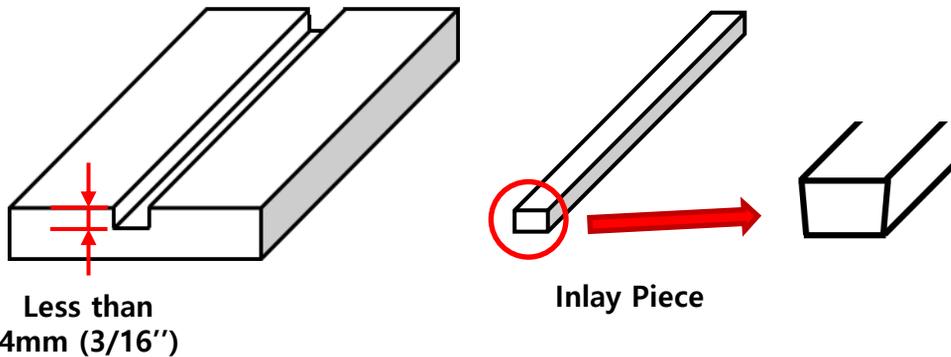
- Hard Inlays
- Soft Inlays

### 6.10.1 Hard Inlays

**ConfAd®** Solid Surface sheets can be set and seamed into the surface of another sheet.

#### Directions

- ① Create a slot routing out the material using a straight bit. The slot should be less than 4mm (3/16") deep.
- ② Construct the **ConfAd®** Solid Surface inlay piece. The inlay piece should be cut on a slight angle 1~2° and should be 1.5mm (1/16") thicker than the depth of the slot. This angle will allow the inlay piece to fit firmly in the slot without visible seams.



- ③ Dry fit all the pieces for making sure everything fits well.
- ④ Sand all the pieces with 150 grit sandpaper.
- ⑤ Wipe out the slot and the pieces with denatured alcohol.
- ⑥ Apply **ConfAd®** Seamless Joint Adhesives to the corner of the slot and to the pieces especially on the tapered edges.
- ⑦ Place the Inlay pieces into the slot.
- ⑧ Clamp down the pieces until the adhesive fully cures.
- ⑨ Ski-route or sand the excess material and the polish the area until smooth.

## 6.10.2 Soft Inlays

Soft Inlays are usually used for difficult stripes.

### **Directions**

- ① Create a slot routing out less than 4mm (3/16") deep.  
Small inlays can be done with a router.  
Complicated inlays can be done with CNC routers.
- ② Create a dam around the slot using hot glue or other adhesives.
- ③ Apply Inlay kit into the slot.  
Always overfill the slot. This will compensate for the shrinkage of the inlay kit and will let the air bubbles reach to the top.
- ④ Once fully cured, ski-rout or sand the excess material and the polish the area to desired finish.

### **※ Note**

- Always allow the enough time for the inlay to fully cure.  
If sanding before fully cured, the inlay will shrink
- Allow enough time to fully cure.
- Great care should be needed for avoiding air bubbles in the inlay.

## 6.11 Backsplash

There are three backsplash options to choose for ConfiaAd® Solid Surface countertops.

- Loose Backsplash
- Coved Backsplash
- Full Height Backsplash

### 6.11.1 Loose Backsplash

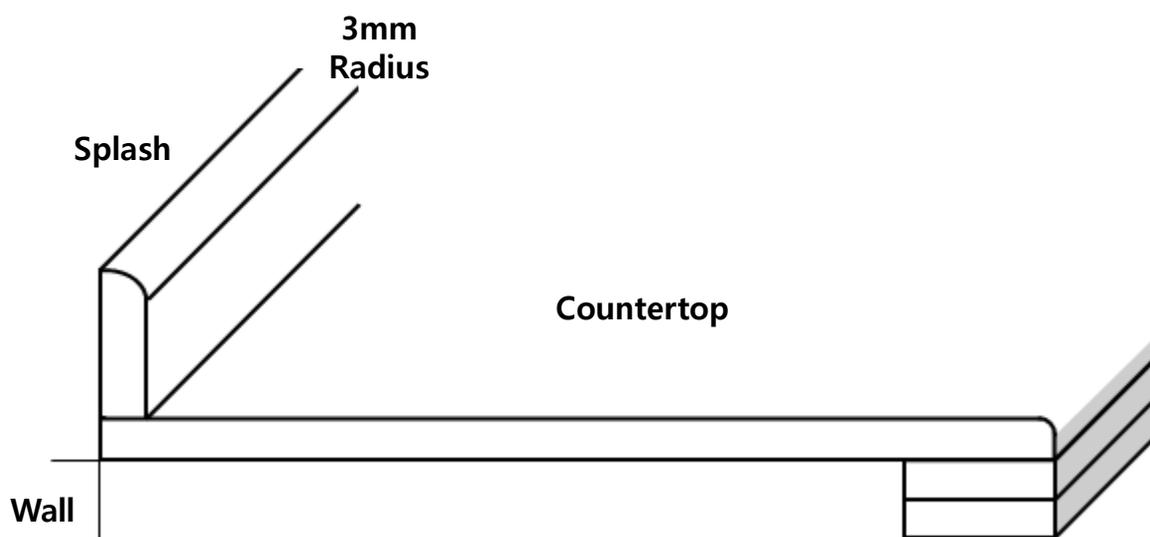
Loose Backsplash is the most common and widely used method and the backsplash is set on the top of the countertop.

The Loose Backsplash is generally from 80~120mm (3~5") high and 12mm (1/2") thick but the height can be chosen by customers' preferences.

For the decorative purpose, the top edge of backsplash usually has 3mm (1/8") radius.

There are two ways to install loose backsplash to the countertop depending on whether the permanent installation or not.

- Using ConfiaAd® Adhesive kit (Permanent)
- Using Silicone Adhesive



## 1) Installation of Loose Backsplash using ConfAd® Adhesive kit (Permanent)

- ① Cut the splash from the same materials that were used for the countertop fabrication. Always check for color match before fabricating.
- ② Cut all splash to the required size.  
The top edge usually has 3mm (1/8") radius.
- ③ Apply ConfAd® Seamless Joint Adhesives to where the countertop meets the backsplash.
- ④ Apply dabs of silicone adhesive approximately every 300mm (12") on the back of the splash that will contact with the wall.
- ⑤ Apply dabs of hot glue on the back of the splash on the back of the splash as well for holding the splash in place during the silicone dries.  
Hot glue should be applied between the dabs of silicone.
- ⑥ Put the splash in place and hold it tight against the wall and to the countertop until the hot glue dries.
- ⑦ Remove excess glue squeezed from the joints.

## 2) Installation of Loose Backsplash using Silicone Adhesive

- ① Cut the splash from the same materials that were used for the countertop fabrication. Always check for color match before fabricating.
- ② Cut all splash to the required size.  
The top edge usually has 3mm (1/8") radius.
- ③ Run a bead of silicone on the countertop where the splash will rest.
- ④ Apply dabs of silicone adhesive approximately every 300mm (12") on the back of the splash that will contact with the wall.
- ⑤ Apply dabs of hot glue on the back of the splash for holding the splash in place during the silicone dries.  
Hot glue should be applied between the dabs of silicone.
- ⑥ Put the splash in place and hold it tight against the wall and to the countertop until hot glue dries.
- ⑦ Lay a bead of silicone in the corner between the top and the splash for water proof.
- ⑧ Spray the corner bead of silicone with denatured alcohol .
- ⑨ Make sure the bead of silicone touches the splash and the top.
- ⑩ Wipe excess silicone squeezed from the joints using laminate chip.

## 6.11.2 Coved Backsplash

A Coved backsplash method is a little more complicated backsplash. than Loose Back Splash. However this method is very popular and preferred by many fabricators because it provides a seamless coved seam.

There are three different methods for coved backsplash.

- "V" Grooving
- Hand Held Cove Router
- Alternative Method

### Precautions

- The onsite template should be produced to the identical shape of the wall and cabinets for preventing any gaps along the top edge.
- Same sheets or sheets from same LOT # should be used in the fabrication of the backsplash.
- Seam lines should be inconspicuous.
- The cove build-up should be inserted in a notch of the countertop.
  - This helps to strengthen the backsplash and creates a proposal seam.
  - If the backsplash is build without the notch on the countertop, the seam line will be visible and the countertop will be voided of its warranty.
- In case of "Metallic Series" and "Marble Series", because of the characteristics, the coved backsplash method is not recommended except for "V-Grooving".

## 1) "V" Grooving

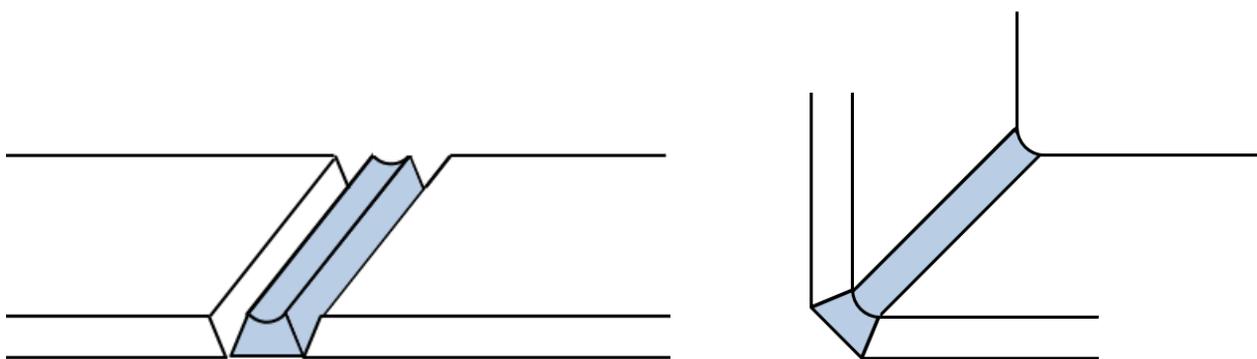
"V" Grooving is one of the fastest and easiest method for achieving a coved backsplash. However, still the cost for V-Grooving equipment are quiet expensive.

The basic principle of "V" Grooving for the coved backsplash is to route the solid surfaces into the material so that it can be folded up 90° angle.

Since the specific techniques will differ depending on the equipment, please consult the "V" Grooving equipment manufacturer for the detailed instructions.

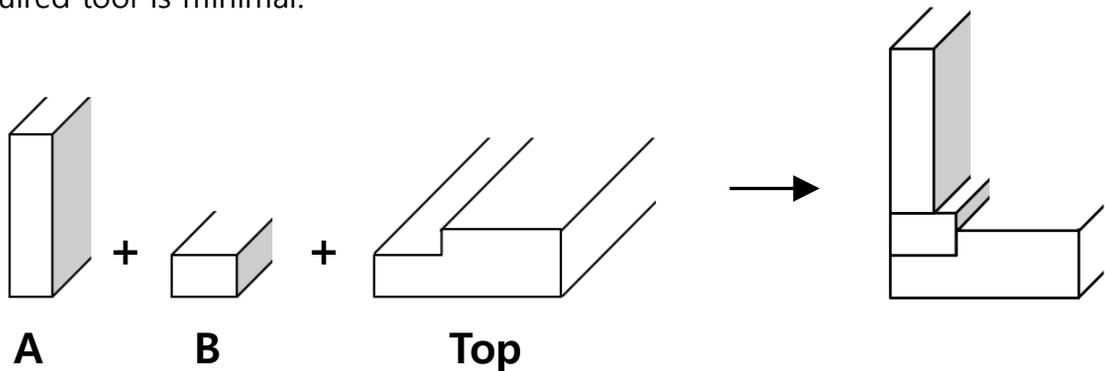
### Directions

- ① Calibrate the equipment.
- ② Apply the proper tape recommended by equipment manufacturer on the backside of the cut.
- ③ Run the material into the machine.
- ④ Wipe out the grooves with denatured alcohol.
- ⑤ Apply **ConfiaAd®** Seamless Joint Adhesives in the grooves and fold up the material.
- ⑥ After curing, sand and polish it



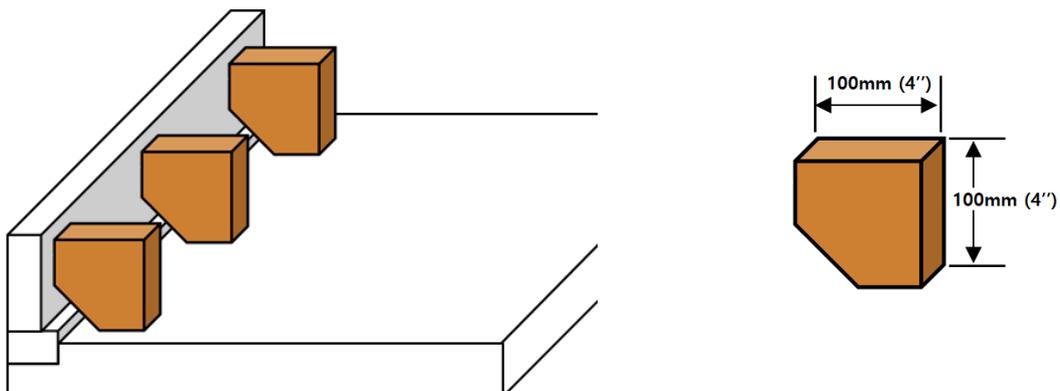
## 2) Hand Held Cove Router

Hand Held Cove Router is easy and popular method because it is easy and the required tool is minimal.

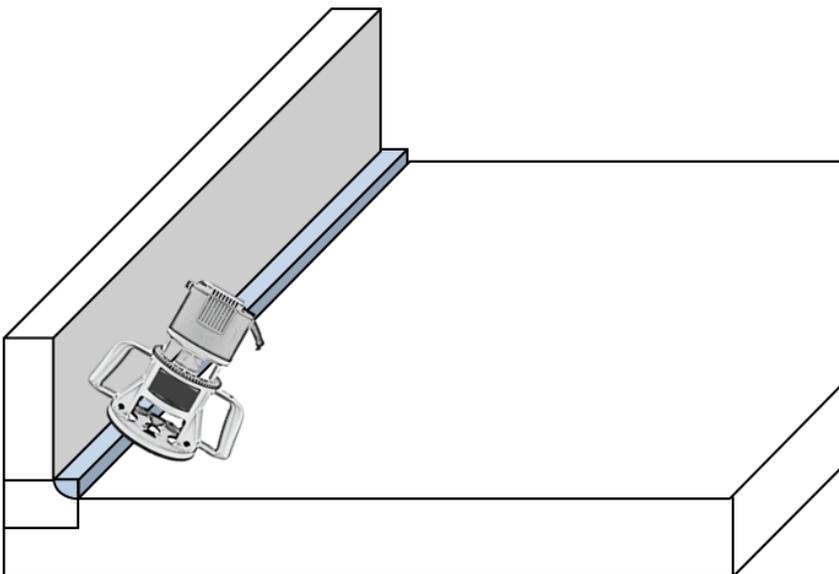


### Directions

- ① Cut the backsplash piece "A" 9.5mm (3/8") shorter than the normal height.
- ② Cut the piece "B" 12mm (1/2") x 22mm (7/8") x Length of the top.
- ③ Abrade pieces "A" and "B" and wipe down with denatured alcohol.
- ④ Seam them perpendicular to each other with **ConfiaAd®** Seamless Joint Adhesives.
- ⑤ Clamp two pieces together using spring clamps every 6" of entire length.
- ⑥ With rabbet bit, create 3mm (1/8") deep and 22mm (7/8") wide notch on the "Top".
- ⑦ Keeping the splash pieces 90° to the countertop is very important.
- ⑧ Using MDF or particleboard, make blocks 100mm (4") x 100mm (4") with a 45° cut on the bottom.
- ⑨ Place the blocks every 300mm (12").
  - ※ The blocks should be placed about 2" from the both ends.
- ⑩ Dry fit the splash and clamp down for making sure everything fits well.



- ⑪ Hot glue the blocks to the deck. All blocks should be against the backsplash.
  - ※ The blocks should be placed to make the splash 90° to the deck.
- ⑫ Once all blocks are hot glued to the top, wipe down the bottom of splash and the notch of the top with denatured alcohol.
- ⑬ After the denatured alcohol is completely dry, apply **ConfAd®** Seamless Joint Adhesives to the notch.
  - ※ Apply 3mm (1/8") beads to the three places (front / back / middle parts of the notch).
- ⑭ Place the backsplash on the notch and clamp the splash downward and from front to back making sure the splash is glued down all the way and is kept at 90°.
  - ※ **Note**  
When placing the backsplash into the seam adhesive on the notch, set it a little back and push it forward. This will make sure that the seam adhesive will be under the splash and in front of the seam.
- ⑮ After the adhesive is fully cured, remove clamps and wood blocks and clean up the hot glue residue.
- ⑯ Calibrate the cove router so that the bit touches the splash and the countertop.
- ⑰ Run the router from left to right making sure to keep the router tight up against the splash.
- ⑱ After routing out, sand and polish the splash, cove, and the countertop to the desired finish. Refer to **Chapter 6.14 "Finishing"** on page 67.



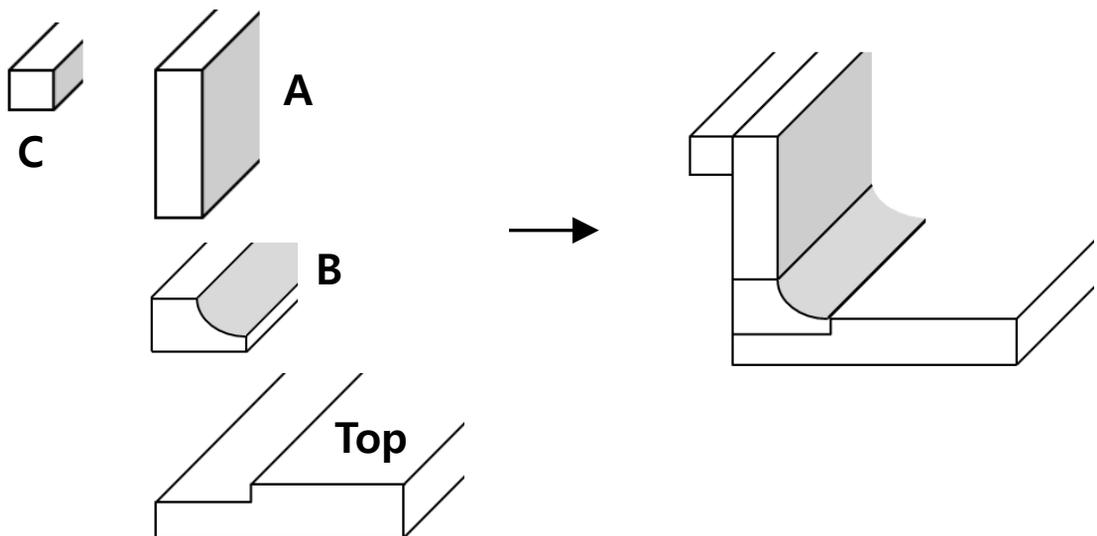
### 3) Coved Stack

Looking back to the previous **Chapter 6.10.2 1) "V-Grooving"**, the method is very easy and very fast but it is very costly.

In case of 6.10.2 2) "Hand Held Cove Router" method, it is pretty simple method and it is not expensive because the required tool is minimal.

However, the sanding of splash that is already installed to the countertop is quiet difficult.

The following method is one of the alternative methods for solving the disadvantages of the previously mentioned methods.

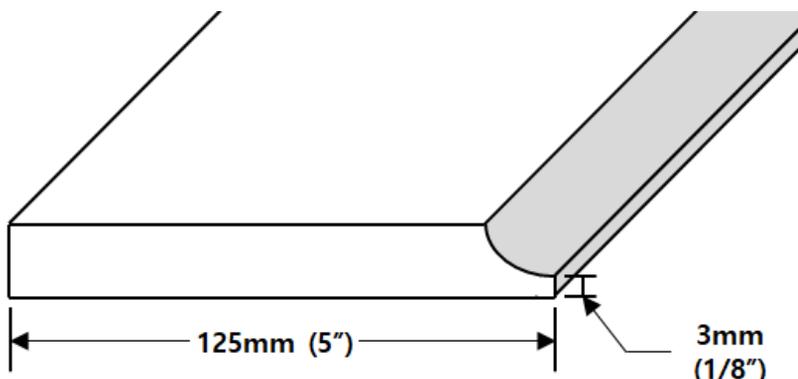


#### Directions

- ① Cut a material 125mm (5") wide with length of the top.

Set the piece face up and clamp it on the table.

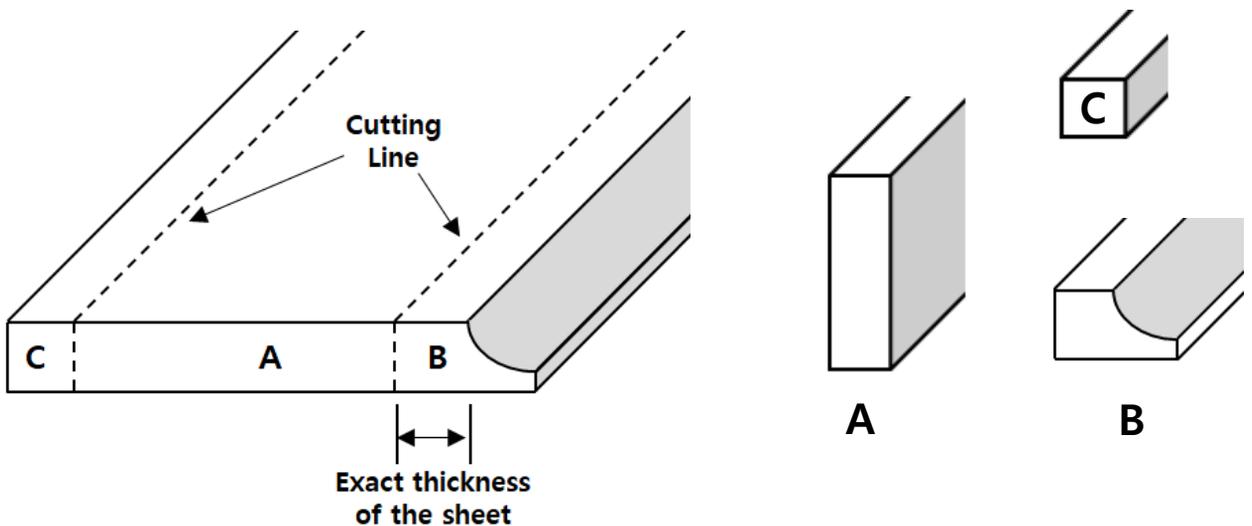
Using a 10mm (3/8") cove router bit, rout the material leaving 3mm (1/8") of flat surface on the piece.



- ② Using the table saw with sharp blade, set the fence to the desired width. Cut the material exact thickness of the sheet. The 2 pieces will become the splash part "A" and the cove part "B". If needed, cut the material for the spacer strip part "C".

※ **Note**

- To measure the exact thickness of the sheet, put a scrap piece 90° to the 5" piece and mark the line using a utility knife.



- ③ Place release tape on the table and set two pieces face up on the release paper.
- ④ Abrade the bottom of "A" and the top of "B" and wipe two pieces down with denatured alcohol.
- ⑤ After the alcohol is completely dry, apply **ConfAd®** Seamless Joint Adhesives on the cove piece "B". (6.5mm (1/4") bead in the middle of the piece)
- ⑤ Clamp two pieces together using spring clamps. For giving constant pressure to entire length of the seam, use clamps properly spaced.
- ⑥ After the adhesive is fully cured, remove the clamps and sand the backsplash to desired finish.
- ※ Use a soft pad for the pad curves to the cove. Be cautious not to sand the cove with too much pressure. It may deform the cove.
- ⑦ With rabbet bit, create 3mm (1/8") deep and 22mm (7/8") wide notch on the "Top".
- ⑧ Keeping the splash pieces 90° to the countertop is very important. Follow the same instructions in section 6.10.2 2) Step ⑧~⑭ on page 50~51.

- ⑨ After the adhesive is fully cured, remove clamps and wood blocks and clean up the hot glue residue.
- ⑩ Sand and polish to desired finish.  
Refer to **Chapter 6.12 “Finishing”** on page 67.
  - ※ Remember the backsplash is already sanded.  
Be careful not to sand the cove area.
- ⑪ If need, add a space strip to the back of the splash.

## 6.11.3 Full Height Backsplash

This splash runs from the top of the counter to the bottom of the upper cabinets. After the countertop is installed, it is strongly recommended that the full height backsplash be templated.

Make a template of the wall where the backsplash would be.

Corrugated plastic or cardboard templating is the best method for the Full Height Backsplash.

### Directions

- ① Cut the corrugated plastic or the cardboard to 3mm (1/8") short of overall height and length. If there are different heights, cut the pieces separately. Make these pieces longer than needed by about 200mm (8") for overlapping and gluing.
- ② Once all the pieces are cut to size, hot glue them together.
- ③ After the pieces are glued, cut 12mm (1/2") wide strips and hot glue to the template.
- ④ Lay the template on the material and trace out.  
Lay the template flush with the bottom of the material.  
After tracing is finished, use a router and straight edge to cut the material to size and to make the required holes for the backsplash.  
**※ Never use a JIGSAW to cut the material.**
- ⑤ Sand entire sheet to desired finish and rout 3mm (1/8") on all exposed sides.

### Installation of Full Height Backsplash

- ① Run a continuous bead of silicone all the way around the perimeter of the sheet and around all cutouts.
- ② Apply dabs of silicone adhesive approximately every 300mm (12") on the back of the full height splash.
- ③ Apply dabs of hot glue on the back of the splash for holding the splash in place during the silicone dries.  
Hot glue should be applied between the dabs of silicone.
- ④ Put the splash in place and hold it tight against the wall until hot glue dries.
- ⑤ Lay a bead of silicone in the corner between the top and the splash for water proof.
- ⑥ Spray the corner bead of silicone with denatured alcohol .
- ⑦ Make sure the bead of silicone touches the splash and the top.
- ⑧ Wipe excess silicone using laminate chip.

## 6.12 Sink & Bowl

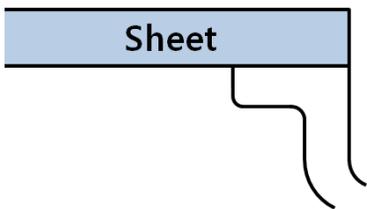
There are so many different types and styles of sinks and bowls that could be installed into **ConfiaAd®** Solid Surfaces.

In this chapter, we go over the **ConfiaAd®** 100% Acrylic Sinks & Bowls and non-solid surface sinks & Bowls (Stainless Steel, Cast Iron, and others).

For all sink or bowl installations, we recommend you to consult the manufacturers for the details.

### 6.12.1 ConfiaAd® 100% Acrylic Sink & Bowl

Here are some installation options for **ConfiaAd®** 100% Acrylic Sink & Bowl.



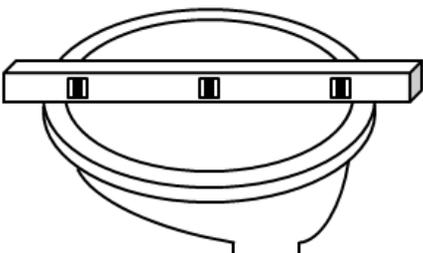
**Seamed Under Mount**



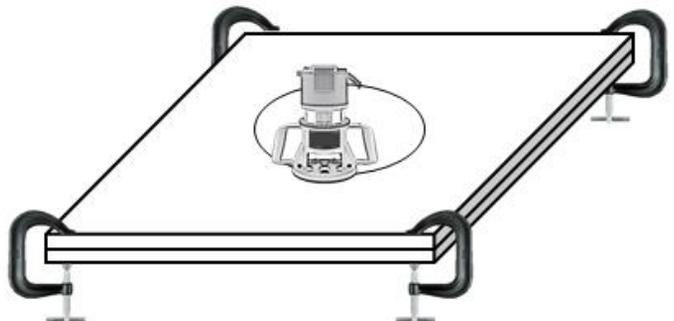
**Bevel Mount (Angled)**

### Seamed Under Mount

- ① Check the sink/bowl flange for flatness with aluminum level.
- ② Check the back of the sheet for flatness.
- ③ Clamp the cutout template in position.
- ④ Rout the all cutouts using a router.

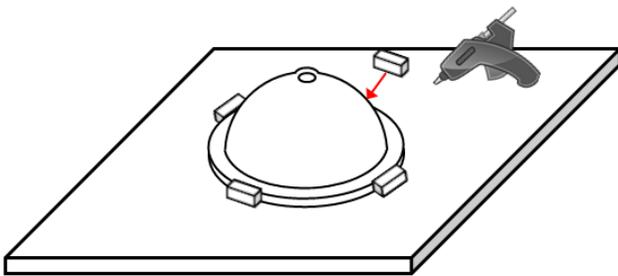


**Check Flatness**



**Clamp Template & Cutout**

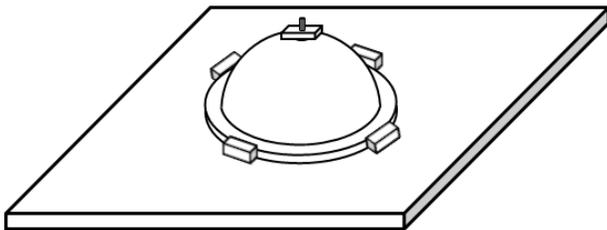
- ⑤ Remove the template and position the sink/bowl on the sheet. Using hot melt glue, fix the sink/bowl with the guide blocks.
- ⑥ Sand the flange surface for proper adhesion. Clean the sink/bowl flange and the sheet with denatured alcohol.
- ⑦ Apply thick continuous bead of **ConfiaAd®** Seamless Joint Adhesives to the sink/bowl flange and glue in position.
- ⑧ Secure the sink/bowl firmly in place using clamp and allow to dry.
- ⑨ Turn the countertop over carefully and rout the surplus material to the edge of the sink/bowl with the decorative bit for the desired edge.
- ⑩ Polish the entire surface and bowl for the desired gloss level.



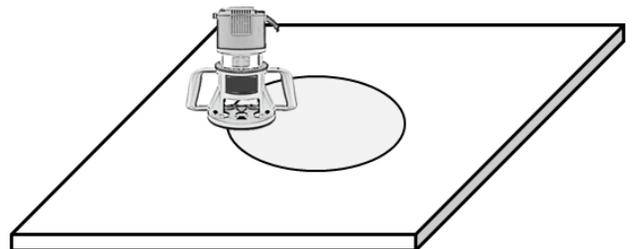
**Guide Blocks**



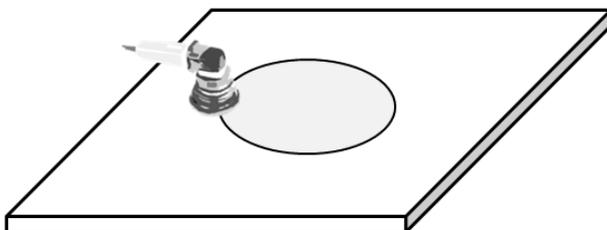
**Applying Adhesives**



**Secure and allow to dry**



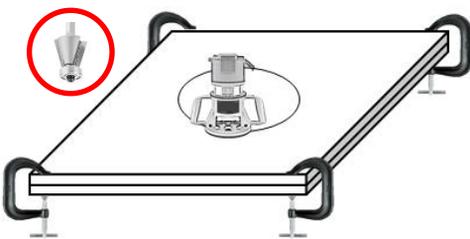
**Decorative Edge**



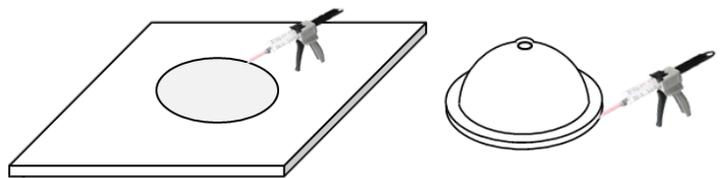
**Polish**

## Bevel Mount (Angled)

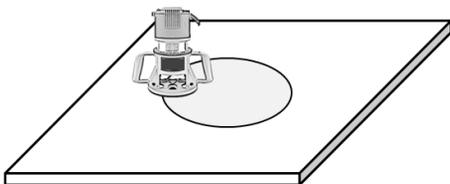
- ① Check the sink/bowl flange for flatness with aluminum level.
- ② Check the back of the sheet for flatness.
- ③ Clamp the cutout template in position.
- ④ Rout the all cutouts using a router with 30mm copy ring and 10mm (3/8") single flute bit.
- ⑤ Bevel the cutout edge with a 15° bevel bit until the desired sink edge location is obtained.
- ⑥ Position the sink/bowl on the sheet.  
The rim face of the sink/bowl be 1~2mm above the sheet. If need, repeat step ⑤.
- ⑦ Remove the template and clean the edge of sink/bowl and the cutout edge with denatured alcohol.
- ⑧ Make a dam using plastic tape underside of the cutout.
- ⑨ Apply thick layer of **ConfAd®** Seamless Joint Adhesives to the sink/bowl and the cutout edge.
- ⑩ Set the sink/bowl in the position.
- ⑪ Secure the sink/bowl firmly in place using clamp and allow to dry.
- ⑫ Level the sheet with a sander.
- ⑬ Make the edge of the sink/bowl with the decorative bit for the desired edge.
- ⑭ Polish the entire surface and bowl for the desired gloss level.



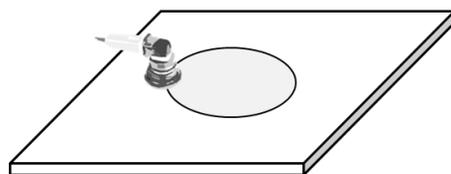
**Clamp Template & Cutout**



**Applying Adhesives**



**Decorative Edge**



**Polish**

## 6.12.2 Non-Solid Surface Sink & Bowl

ConfAd® Solid Surfaces can accommodate any type of sinks in the market such as Stainless Steel, Cast Iron, and others.

### 1) Stainless Steel Sink

Stainless Steel Sink can be top mounted or under mounted to ConfAd® Solid Surfaces

#### Under Mount Stainless Steel Sink

- Normally under mount stainless steel sink is installed with 100% silicone adhesive. However, depending on weight and type of sinks, special clips are needed for holding sinks.
  - Cut out the sink hole with template.
  - Apply a bead of 100% silicone adhesive to the sink flange and to the edge of ConfAd® Solid Surface cutout.
  - Place the sink into the cutout.
  - Attach clips and clamp down to the underside of the sink.
  - Clean up any excess silicone.
- ※ Remember that 100% silicone needs at least 24 hours to dry.

#### Top Mount Stainless Steel Sink (Drop-in)

- Apply a bead of 100% silicone adhesive to the bottom edge of the self rimming sink flange and to the edge of ConfAd® Solid Surface cutout.
- Place the sink into the cutout.
- Attach clips and clamp down to the underside of the sink opening.
- Clean up any excess silicone.

## 2) Cast Iron and other heavy sink

Cast Iron and other heavy sink can be top mounted or under mounted to **ConfiaAd®** Solid Surfaces.

However, it is very important to consult fabrication plant for any special instruction.

### Under Mount Cast Iron and other Heavy Sink

- Follow the same direction 6.12.2 1) Under mount Stainless Steel Sink
- The difference is that the special frame is required for supporting heavy sink.
- Install 25mm(1") x 75mm (3") wood frame or pre-made frame to the inside of the sink base. Screw into cabinet and wall.
  - ✘ **The frame must be strong enough for holding the weight of the sink, water, and other items in the sink.**
- Place the sink on the frame and attach all plumbing.
- Apply a bead of 100% silicone adhesive on the rim of the sink.
- Position the countertop and push down it to make sure silicone is coming out.
- Clean up any excess silicone.
- ✘ **Remember that 100% silicone needs at least 24 hours to dry.**

### Top Mount Cast Iron and other Heavy Sink (Drop-in)

- Follow the same direction 6.12.2 1) Top mount Stainless Steel Sink

## 6.13 Support

ConfAd® Solid Surface needs to be supported on a strong perimeter frame.

The best materials for ConfAd® Solid Surface countertop support is made from **moisture resistant** wood products.

※ **Moisture Resistant Plywood, Solid Hardwood Lumber, MDF**

### 6.13.1 Countertop Support

Proper countertop support is one of the most important thing because the countertops not properly supported can be severely damaged and this will not be covered under warranty.

In this manual, we review three specific ways to build a full perimeter support.

- **Cabinet Frame**
- **Full Perimeter Support**
- **Framing**

#### 1) Cabinet Frame

Depending on type of cabinet, the Cabinet frames can be used as the full perimeter support.

- Countertops need to be supported every 300mm (12")
- Make sure to check the cabinets for sturdy frames.
- For supporting the countertop every 300mm (12"), extra support frames attached directly into the cabinets might be required.

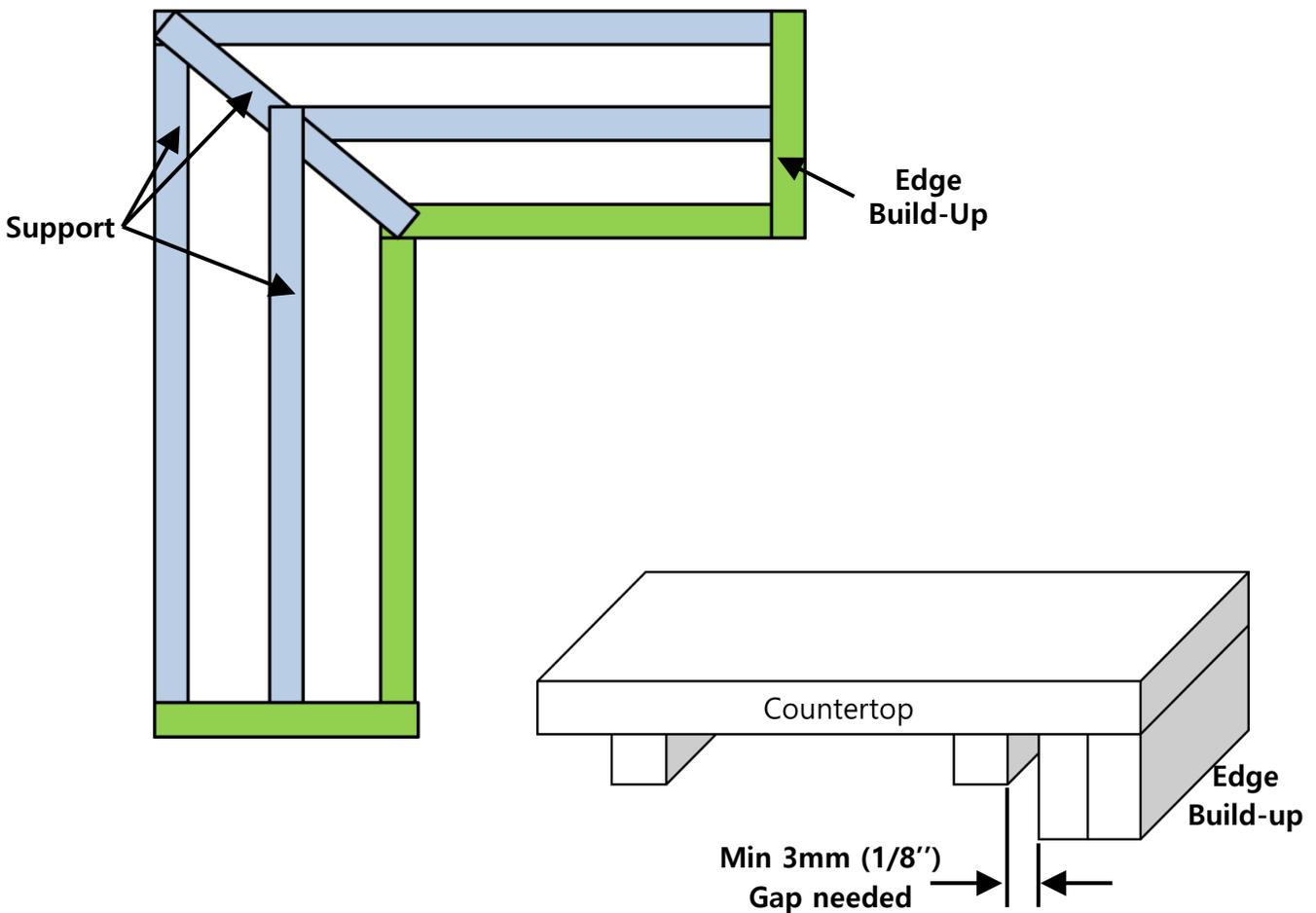
#### 2) Full Perimeter Support

- All the tops need to be supported every 300mm (12")
- Apply perimeter support strips to the countertop.
- Use 100% silicone adhesive to bond support strips to ConfAd® Solid Surface.
- Support should be provided under all countertop joints.
- If the stacked edge build-up is 2" wide, supports in the front edge are not needed.
- If the edge build-up is less than 2", wood support is needed behind of the edge build-up. When placing the wood support, at least 3mm (1/8") gap between the front edge and the support considering the contraction and expansion property.

- All cabinets must be leveled and shimmed as necessary to 1/16" tolerances prior to countertop installation.
- After the support system is installed and leveled, you will be ready to begin installation of the ConfiaAd® Solid Surface countertop.

## ※ Note

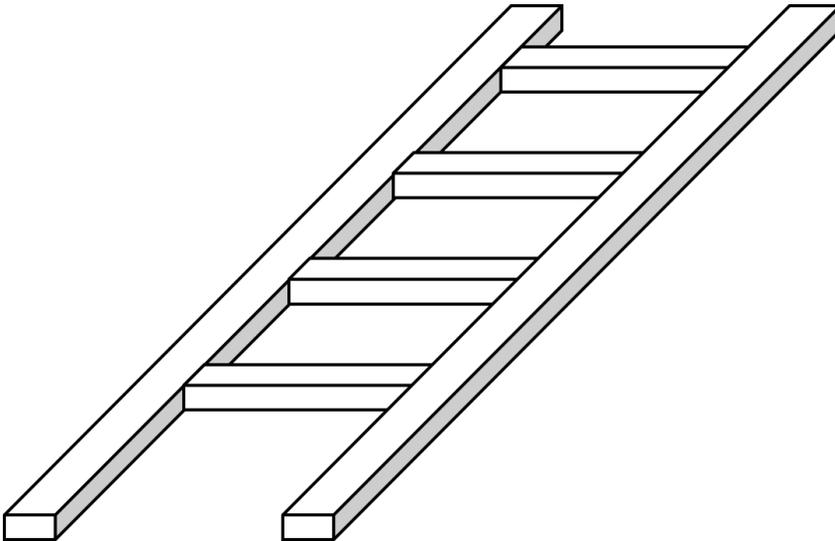
- Full underlayment support (Sub-Top) is not allowed because it cause heat accumulation and thermal expansions that could be the reason of warping and cracking according to the different thermal expansion between wood and ConfiaAd® Solid Surface countertop.
- There needs to be air flow on both sides of the sheet to allow for contraction and expansion.
- If the cabinet has dust cover, it needs to be removed prior to top installation.



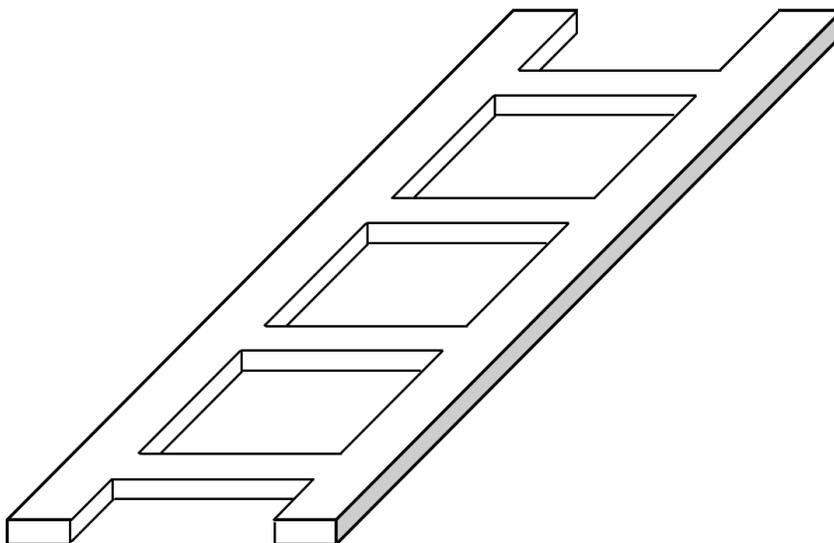
### 3) Framing

Framing support method can be used when the cabinet conditions are not good. The frame can be made two ways.

- **Constructed Ladder System gluing the strips together**



- **Routed Ladder System forming a solid piece of frame routing out the appliance cut-outs**

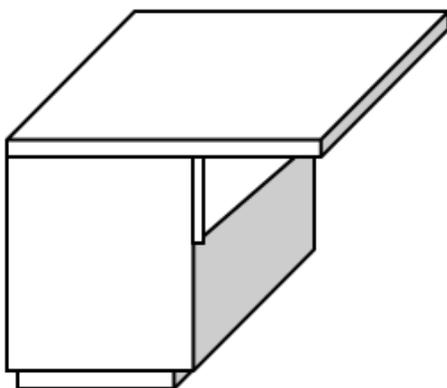
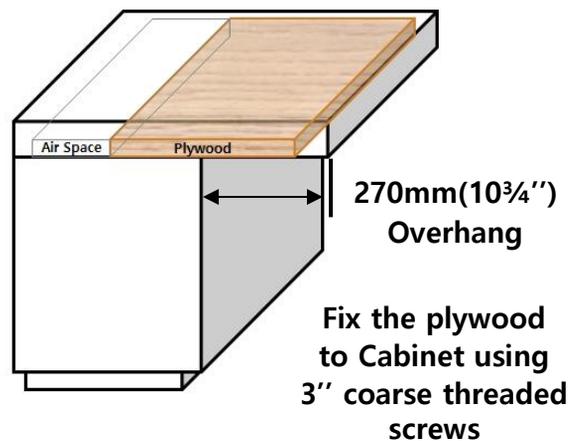
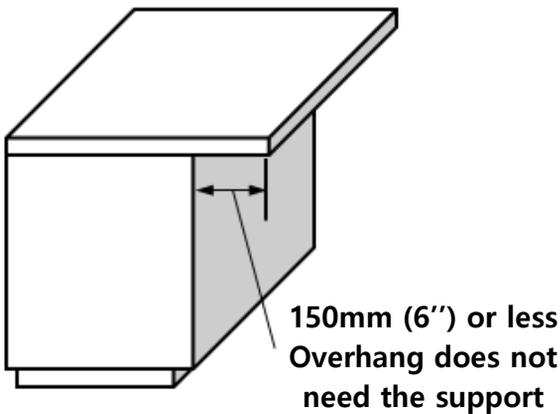


### 6.13.2 Overhang Support

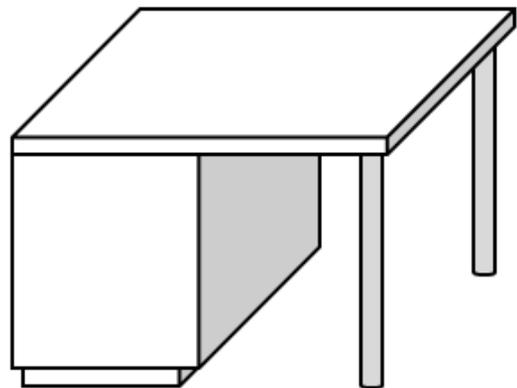
Followings are the guidelines for overhang support.

Overhang Length (12mm Thickness)	Support Requirement
≤ 150mm (6")	No additional support required
150mm (6") < < 405mm (16")	Plywood underlayment or Brackets required at 600mm (24") or less intervals .
405mm (16") ≤	Legs or Columns require at 600mm (24") or less Intervals

※ 6mm (1/4") sheets are not recommended for countertop use.



**Brackets for Overhang**  
150mm(6") ~ 405mm(16")



**405mm (16") or more Overhang**  
needs Legs or Columns

## 6.14 Finishing

The finishing is very important and sensitive part of entire fabrication process because

For achieving the proper finish, have right tools and sanding pads.

✘ **Never use belt sanders that could cause excessive heat.**

Explain the performance of finish option to the customers well.

### 6.14.1 Tools Required

- Random orbital sander (Pneumatic or Electrical)
- Sand Papers

Type	Specification
Standard Grits	Average size of grit
Micron Paper (3M)	All grit the same size (5, 9, 15, 30, 60, 80)
Abralon (Mirka)	Wet or Dry (180, 360, 500, 1000, 2000, 4000)
Trizat (3M)	Color coded, <b>Must be wet</b>

### 6.14.2 Type of Finish

Type	
Matte	Most common / Easiest to maintain
Semi Gloss	Common / Easy to maintain
Gloss	High Maintenance
High Gloss	Not recommended for countertops / Very High Maintenance

### 6.14.3 The Finishing Chart

According to customers' requirement, the finish may vary.

However, for daily use, a **"Matte"** or **"Semi Gloss"** finish is recommended.

※ **Dark colors need higher gloss and require additional maintenance and care for retaining the original color.**

**So, in high traffic area, dark colors are not recommended.**

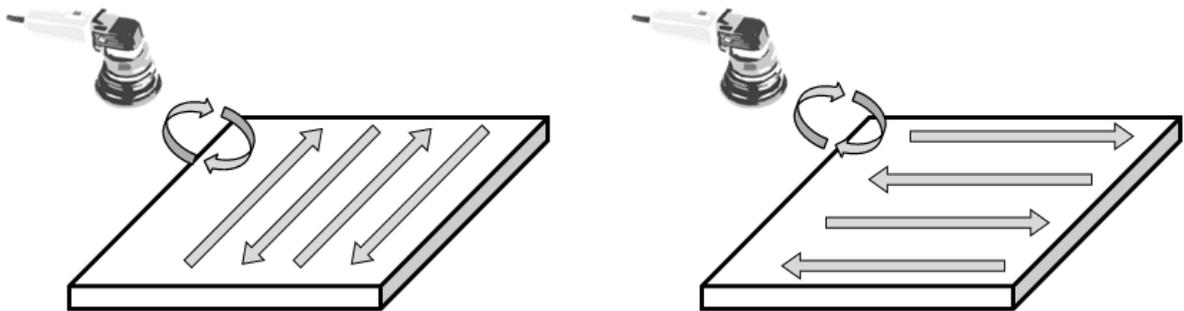
Finish	Standard Grits	Micron Paper (3M)	Abralon (Mirka)	Trizat (3M)
<b>Matte (Light Color)</b>	120, 150, 180 Red Scotch Brite	80, 60 Red Scotch Brite		
<b>Matte (Dark Color)</b>	120, 150, 180 220, 320 Grey Scotch Brite	80, 60 Grey Scotch Brite	180, 360 Grey Scotch Brite	
<b>Semi Gloss</b>	120, 150, 180 220, 320 600 (Wet)	80, 60, 30 15	180, 360, 500	
<b>High Gloss</b>	120, 150, 180 220, 320 (600, 800, 1,000) Wet	80, 60, 30 15, 9, 5	180, 360, 500 1,000, 2,000, 4,000	60 micron Green, Blue Orange, White <b>All Wet</b>
<b>Mirror Finish</b>	All of the above, plus 1. Marine Grade Rubbing Compound 2. Finesse it Compound 3. Liquid Glass as coat			

※ **Wet sanding should be done with pneumatic tools.**

※ **This chart is only for a guideline and should be tested for your applications.**

## 6.14.4 Sanding

- Sanding should be done in same direction.
- Sand front to back, side to side in small circular clockwise motion with equal pressure and equal speed.
- Overlap half diameter of sander.  
ex) Sander: 6", Overlap: 3"
- Clean the dust between each grit of sandpaper for preventing scratches, swirls on the surfaces.



## 6.14.5 Polishing

For high polishing the surfaces, there are some more steps.  
Note that high polishing requires extra maintenance.

- Sand the surfaces to a high gloss finish.
- Make sure that cleaning off all dust between each grits of sandpaper.
- There are 3 rubbing compounds and it is important to use different pads for each compound.
  - Marine Paste Compound (3M)
  - Finesse-it Compound (3M)
  - Liquid Glass
- Spread small amount of "Marine Paste Compound" on surfaces and polish it using pad #1 with same method front to back, side to side in circular clockwise motion.
- Wipe down the compound before moving to the next step.
- Change pad #2 and follow the previous step using "Finesse-It" compound.
- After wiping down the compound, change pad #3 and repeat the previous step using "Liquid Glass" compound.
- After the "Step 3 (Liquid Glass)", wait 5 minutes and then buff the surface.

## 7. Installation

### 7.1 Transportation

ConfAd® Solid Surface countertop are heavy and fragile.

When planning and packing for transportation, consideration must be given to portability and site access.

- **Never carry, lay, and transport the surfaces flat**

- "A" frame carts with wheel and wheel locks is one of the best option for transport.
- Transport ConfAd® Solid Surfaces vertically on "A" frames.
- Brace or otherwise secure all cutouts to avoid flexing of the seams and corners.
- Make sure that the materials are wrapped with carpet, blankets, or proper padding to protect surfaces from any damages.
- Always strap tops to the rack and strap the rack to the truck.
- Do not allow any parts to slide around during transport.

### 7.2 Site Preparation

- Check accessibility.
- Ensure that all cabinets are complete an satisfactorily installed.
- Verify that all cabinets are leveled and flat within 3mm (1/8") for every 3m(10').
- The cabinets should be affixed to each other and then secured to the back wall.
- Make sure that the surrounds of the cutouts have sufficient support.
- Cover all heat and AC vents near where the top is being installed.
- Clear all debris and obstructions.
- Note electrical/plumbing positioning and any irregular wall conditions.
- Check interference between Cabinet doors/drawers and any overhang/edges.

## 7.3 Dry Fitting

When all site preparations are satisfied, it is time to fit the **ConfAd®** Solid Surface to make sure everything fits correctly.

- Always lift the pieces vertically.
- Bring the pieces and test fit them in place on the cabinets. Adjust as necessary to insure a good fit and proper alignment.
- Verify all pieces fit correctly against walls and cabinet sides where applicable. There should always be about 3mm(1/8") space at all each wall for expansion and contraction of **ConfAd®** Solid Surfaces.
- Verify that all overhang areas are the correct measurements and parallel to cabinets.
- Make sure all pieces are properly supported.
- All the seam areas are aligned.
- Pull the seam together to see how the seam will turn out.

If all pieces are placed properly and everything is in order, you are ready to fix the top to the cabinets.

## 7.4 Field Seams

**ConfAd®** Solid Surfaces should be seamed in the fabrication shop as much as possible and should minimize the field seams.

However, sometimes, for the following reasons, the field seams are inevitable.

- Size and Shape of the countertop
- Transportation Difficulty
- Accessibility to the job site
- Installation Difficulty

At the initial stage of site inspection and templating, it should be decided which seams will be completed in fabrication shop and which seams will be done in the field. All preparations should be done in the shop before departing to the job site.

### Directions

- Follow the procedure in **Chapter "6.8 Seaming"**.
- Polish to match the finish
- ✳ **Minimize dust and noise.**

## 7.5 Faucet Holes

Sometimes, the faucet holes need to be drilled in the field.

### Directions

- Use standard hole saw with 1/4" pilot bit.
- For kitchen faucets, normally 1 3/8" hole saw is used but check the size of the faucet and manufacturer instructions.
- For Vanity faucets, normally 1 1/8" hole saw is used but check the size of the faucet and manufacturer instructions.

### ※ Note

- Do not twist or do not force the drill too much because this can cause the stress in the top and can break the top and make crack in the top.
- 3mm (1/8") radius routing around the hole is recommended.

## 7.6 Sink & Bowl Installation

- Refer to **Chapter 6.12 "Sink & Bowl"** on page 58 for details and instructions.

## 7.7 Countertop Installation

- When affixing **ConfAd®** Solid Surfaces to cabinets and to all supports, using 100% silicone adhesive is recommended to allow the top to expand and contract.
- Apply silicone adhesives every 200~300mm (8~12") at perimeter and intermediate support. Use extra adhesives on all corners and around all cutouts. Do not use Epoxy, liquid nails or similar non flexible adhesives.

## 7.8 Backsplash Installation

- Refer to **Chapter 6.11 "Backsplash"** on page 48 for details and instructions

## **7.9 Completion**

- After you finish installation, thoroughly clean the countertops and the work area.
- Inspect the entire job with customers upon completion.
- We strongly recommend that you take photos of the actual installation and get your customers' written confirmation about their satisfaction with the material and workmanship at the end of the job to cover you against damages caused by others.
- Review Care and Maintenance procedures with customers and leave the Care and Maintenance manual.
- If the customers have any concerns about the work, address and try to fix any problems that customers may have before you leave.  
This will minimize the return trip.
- Provide your company label or sticker to the inside cabinet door or the inside cabinet wall for future maintenance.

## 8. Thermoforming

Thermoforming is a process for creating desired shape by heating and forming **ConfAd®** Solid Surfaces.

Although **ConfAd®** Solid Surfaces are very suitable for using thermoforming technology, for good end results, the proper preparation and guideline is required as follows.

### 8.1 Material Preparation

Proper material preparation is very important for successful thermoforming.

#### Directions

- ① Remove the protective film on the material.
- ② Cut the pieces to the required dimensions.  
**※ Consider the material shrinkage and expansion during thermoforming.**
- ③ Sand all the pieces to smooth matte finish for removing any chips and scratches from the edges.  
**※ This prevents cracks during thermoforming.**
- ④ The following table is a guide of the minimum inside radius of the material when thermoforming **ConfAd®** Solid Surfaces.

Sheet Thickness	Minimum Inside Radius	Series
<b>6mm (1/4")</b>	25mm (1")	Solid, Granite (GR-001~200)
	105mm (4")	Granite (GR-201~999)
<b>12mm (1/2")</b>	75mm (3")	Solid, Granite (GR-001~200)
	130mm (5")	Granite (GR-201~999), Marble
<b>19mm (3/4")</b>	130mm (5")	Solid

**※ Lucent, Metallic, Genesis series are not recommended for thermoforming.**

**※ If the bent radius is smaller than the above figures, the sheet may be cracked and whitened.**

## 8.2 Mold Preparation

Proper and accurate mold preparation is essential for the high quality of the finished product.

Mold can be made from plywood or M.D.F. and male and female molds are recommended for holding the heated pieces in the desired shape.

### Directions

- ① Using high quality plywood or M.D.F., construct molds to the desired dimensions.
- ② The surfaces of molds must be smooth and free of any defects.  
Any imperfections in the molds will be transferred to the ConfAd® Solid Surfaces to be thermoformed.
- ③ To endure pressure, the molds must be properly supported.
- ④ Do not use metal or solid wood molds because they can absorb the heat and slow down the thermoforming process.

## 8.3 Oven Preparation

Having right oven is very important for proper thermoforming.

- The oven has to be able to heat the entire sheet uniformly with same temperature at the same time.
- The oven has to be able to fully enclose the sheet to be heated.
- The oven has to be equipped with a temperature control.

### Oven Calibration

- ① Drill a 1.5mm (1/16") diameter hole halfway into a test piece of ConfAd® Solid Surfaces.
- ② Insert the thermocouple wires into the hole and on the surface.  
Cover both areas with aluminum tape.
- ③ Turn on the oven and allow the oven to a 165°C (329°F) for 30 minutes.  
Put the test piece in the oven and start the timer.
- ④ Check the 2 different temperatures when the temperature in the hole reaches 150°C (302°F). If the temperature on the surfaces 160°C (320°F) simultaneously, this will be the most effective time/temperature for your oven.  
**✘ If the temperature on the surfaces is higher/less than 160°C (320°F), reduce/increase the heating power respectively.**
- ⑤ Remove the piece from the oven and allow it to cool until the thermometer reaches 82°C (180°F). Check the cool-down time.  
This is the minimum cool down time in the mold.

## 8.4 Thermoforming Guidelines

### Directions

- ① Calibrate the oven according to the instruction in **Chapter 8.3**.
- ② Pre-heat the oven to the desired temperature.
- ③ Have safety equipment, thermometer, mold, and etc.
- ④ Wearing protective gloves, place the piece of **ConfAd®** Solid Surfaces in the oven and start the timer.  
**※ Please see the Recommended Time and Temperature as below.**
- ⑤ When the piece has been in for designated time, transfer the piece to the mold using protective thermal gloves and clamp securely.
- ⑥ Reset the timer and wait until the calibrated cool-down time is expired.
- ⑦ Remove the piece from the mold with protective thermal gloves and allow cooling to the room temperature.

Sheet Thickness	Oven Temperature	Heat-up Time
<b>6mm (1/4")</b>	150°C (302°F)	30 ~ 60 min
	175°C (347°F)	15 ~ 30 min
<b>12mm (1/2")</b>	150°C (302°F)	45 ~ 80 min
	175°C (347°F)	25 ~ 60 min
<b>19mm (3/4")</b>	150°C (302°F)	75 ~ 105 min
	175°C (347°F)	50 ~ 85 min

**※ Temperature and time may vary depending on oven design & type (Convection oven, Contact oven) and the size of the piece to be thermoformed.**

**※ The above values are for the reference.  
It is highly recommended to test before fabrication.**

## 8.5 Thermoforming Checklist

- The oven temperature should not exceed over 175°C (347°F). Higher temperature may blister and the sheet can be permanently damaged.
- Do not thermoform the sheet that has been seamed.
- The smaller the radius, the more whitening there may be.
- **Never use open flame to heat ConfAd® Solid Surfaces for thermoforming under any circumstance.**  
**Using open flame from torch "WILL" make the blister and damage the sheet.**
- Never attempt any shock during cool-down stage.
- It is highly recommended to test before final fabrication.
- **Jin Gwang does not warrant thermoformed ConfAd® Solid Surfaces.**  
**Thermoformed ConfAd® Solid Surfaces are the responsibility of the fabricator.**  
**Prior to the thermoforming, all sheets must be inspected.**

## 9. Vertical Application

ConfAd® Solid Surface can be applied to not only countertop but also so many different field such as furniture, signage, art, deco, walls, shower booths and many more.

In this chapter, we briefly go over the vertical applications of ConfAd® Solid Surface.

- Shower Surrounds
- Tub Surrounds
- Wainscot
- Partitions
- Signage
- Etc.

The fabrication and installation techniques for them are very similar.

### 9.1 Fabrication and Installation

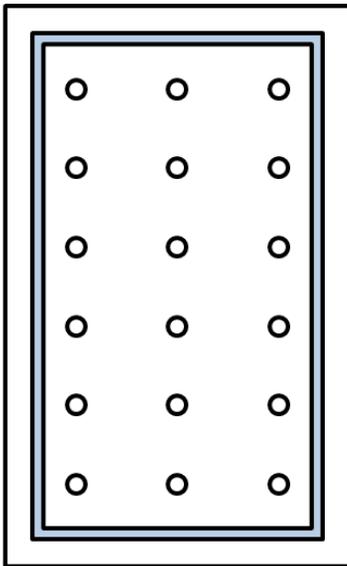
#### Directions

- ① Measure or template the walls or partitions.
- ② Cut the sheets oversized by about 12mm (1/2") around the perimeter.
- ③ After tracing out the template, cut the sheets with a router.
- ④ Sand the sheets to desired finish.
  - ※ Refer to Chapter 6.14 "Finishing".
- ⑤ Dry fit the sheet for the proper fit.
- ⑥ Measure all the cutouts and cut prior to installation.
- ⑦ Cut the faucet holes with a router.
  - ※ Do not cut the holes when the sheets are on the wall.
- ⑧ Using 100% silicone and hot glue, attach the sheets to wall.
  - ※ When attaching the walls, place bead of 100% silicone all around the perimeter of the sheets and place quarter size dabs of silicone every 250mm(10") ~ 300mm(12")
  - ※ Between the silicone dabs, apply hot glue to hold the sheets in place until the silicone fully cures.
  - ※ Attach the back walls first and then attach side walls.

- ⑨ After all the sheets are installed, wipe down with denatured alcohol.
- ⑩ Fill all the joints with color matched 100% silicone.
- ⑪ Remove excess silicone.

## ※ Note

- There should be at least 3mm (1/8") gap on each sides if the sheets are between enclosed space. This is for the sheet expansion and contraction.
- Do not hard seam inside corners. Corners must be seamed with 100% silicone.
- Outside corners can be hard seamed with **ConfiaAd®** Seamless Joint Adhesives.
- Sometimes, if the sheets cannot be seamed, batten strip or corner pieces could be installed.
  - The batten strip can be made by the same color of **ConfiaAd®** Solid Surface.
  - Cut 50mm (2") wide strips and set them over the seam.
  - Silicone the strips on the top of the two pieces.
- Attach sidewalls tightly against the back wall.
- If the glass door is installed, leave 3mm (1/8") gap between the sidewall and the glass door



**100% Silicone bead & dabs  
and hot glue between silicone  
to the wall**

## 10. Repair

For the Repair Techniques, please contact us or contact **“Andreas Custom Design”** directly.

Most of repairs need specially designed tools and detailed instruction.

We believe that the repairing method by **“Andreas Custom Design”** is reliable but please note that this does not mean both parties have responsibility of any kind. **ConfAd** and **“Andreas Custom Design”** disclaim any responsibility.

Therefore, sufficiently test and take necessary precaution for making sure that the repairing methods are suitable for your needs.

### **Andreas Custom Design**

80 Black Meadow Rd.

Chester, NY, 10918, USA

+1-800-935-5406

<http://andreascustomdesign.com/>

## 11. Care & Maintenance

Although **ConfAd®** Solid Surface is hygienic, durable, chemical & stain resistant, and can be easily repaired, it can be damaged if you mistreat it.

With the below instruction of care and maintenance, you could preserve your **ConfAd®** solid surfaces for many years and prevent severe damage that may cause special repairs.

### 11.1 Everyday Care

- On a regular basis, simply wipe **ConfAd®** Solid Surface using a soft cloth or sponge, soap, and warm water.
- For basic stains, clean with mild detergents or general all purpose cleaners (non-abrasive).
  - ※ **ConfAd® Neutral Cleaner** is recommendable for basic stain cleaning.
- Although **ConfAd®** Solid Surface is resistant to stain, for best results, clean liquid spills and stains from foods as soon as possible.
  - ※ **Dark colors will show dirt, dust, rubs, fingerprints, and watermarks more than other brighter colors. These colors will require more frequent cleaning and daily maintenance.**

### 11.2 Stubborn Stain Cleaning & Disinfection

#### 1) Stubborn Stain Cleaning

For removing stubborn stain on countertops and sinks & bowls, please follow the suggested cleaning procedure as below.

##### a) Matte Finish

Lightly scrub surface in a circular motion with a wet sponge (or green Scotch-Brite pad) and abrasive cleanser.

##### b) Gloss Finish

Use a non-abrasive cleanser and a wet sponge and scrub surface in a circular motion.

#### 2) Disinfection

- For disinfecting solid surfaces, apply diluted bleach and wipe it with a towel.
- For sinks & bowls, let the diluted bleach stand for 15 minutes, then drain and rinse.

## 11.3 Preventing Damage

### 1) Heat

- Although ConfAd® Solid Surfaces have excellent heat resistant properties, prolonged and extreme heat can damage the surface.  
Therefore, always use a hot pad or a trivet under heat generating appliances.

### 2) Chemical

- Avoid exposing ConfAd® Solid Surfaces to strong chemicals such as acetone based cleaners, paint removers, and oven cleaners.  
In case that surfaces are exposed to these chemicals, promptly flush with water.

### 3) Scratches

- Always use a cutting board. Never cut directly on ConfAd® Solid Surfaces.
- Be cautious not to drop or move heavy materials on the surface.

## 11.4 Removing Scratches and Cuts

Scratches and minor cuts can be removed by the following procedures.

### 1) Matte Finish

- Sand the affected area with 180 or 220 grit sandpaper until the scratches and minor cuts are not visible.
- For restoring the finish, scrub the surface with a wet Scotch Brite pad in a circular motion.

### 2) Gloss Finish

- Sand the area with 400 or 600 grit sandpaper.
- Apply ConfAd® Polishing cream for solid surfaces on the affected area with a low speed polisher (1,500~2,000rpm) and wool-felt.

※ **Severe damages or deep scratches should be repaired by authorized Solid Surfaces Repair Agents or Certified Fabricators.**

## 12. Warranty

### 12.1 Limited Residential Warranty

**Jin Gwang Industries Co., Ltd.** warrants to the residential owner-occupants of the original installation of **ConfAd®** Solid Surface that **ConfAd®** Solid Surface will be free of manufacturing defects during Ten (10) years after the date of original installation.

**Jin Gwang Industries Co., Ltd.** will, at its sole option, repair or replace without charge in accordance with the following if the product fails due to manufacturing defects.

#### Terms and conditions

1. This warranty applies only to **ConfAd®** Solid Surface.
2. This warranty applies only to **ConfAd®** Solid Surface that has been permanently installed in the interior of single-family residences and has not been moved from the original installation.
3. This warranty applies only to **ConfAd®** Solid Surface that has been fabricated and installed in accordance with the Fabrication Manual for transportation, storage, handling, fabrication, and installation.  
Improper fabrication or installation is the responsibility of the fabricator/installer.
4. This warranty shall be null and void if the product and the installation have not been paid for in full.
5. This warranty applies only to **ConfAd®** Solid Surface that has been properly maintained in accordance with Care & Maintenance available at "[www.confriad.com](http://www.confriad.com)".
6. The customers must register their warranty at "[www.confriad.com](http://www.confriad.com)" within thirty (30) days of installation to be eligible under this warranty.
7. This warranty is transferable under the following conditions.
  - 1) The original owner must have initially registered the warranty with **Jin Gwang Industries Co., Ltd.**
  - 2) The original owner must submit the name, address and phone number of the new owner in writing to **Jin Gwang Industries Co., Ltd.**
  - 3) The new owner will receive a 10-year limited warranty from the original date of installation.
8. This warranty applies to **ConfAd®** Solid Surface purchased and installed after Sep 01, 2015.

## Exclusions

This warranty shall not apply to

1. Product usage for any commercial applications.  
Commercial use includes, but not limited to, use in a store, rental properties, office or any other places of business.
2. Any products moved from the original place of installation.
3. Product and the installation have not been paid for in full.
4. Any outdoor applications and/or exposure to UV.
5. Flooring application.
6. Improper use or abuse including damage from mishandling of the product, damage from excessive heat or uneven exposure to weather conditions, physical or chemical abuse and damage from improper care and maintenance.
7. Failures due to improper fabrication, installation, handling, care and maintenance.
8. Workmanship of Fabricators or Installers.
9. Any defects that were visible at the time of fabrication/installation and were not avoided during fabrication/installation. Fabricators/Installers are required to perform an inspection of all materials prior to fabrication and again prior to installation.
10. Minor conditions such as scratches, stains, water spots and burns that may be corrected by care & maintenance guidelines
11. Failures due to inadequate support for the installation.
12. Damages from other than manufacturing defect.
13. Seam appearance, seam performance, adhesives, caulk or other accessory items.
14. Temporary marks on **ConfAd®** Solid Surface such as metal marks, fingerprints or other temporary marks by daily living.
15. Exposure to excessive heat. Trivets and heat resistant pads must be used.
16. Any damage caused by the installation of sinks and cooktop.
17. Any products installed in recreational vehicles.
18. Color Variation from samples.
19. Exact color matching from repair or replacement is not guaranteed.
20. Same color and vein between sheets in Marble collection.  
The vein may vary from sheet to sheet and also within a sheet.
21. Acts of Nature such as weather effects, fire, flood, and etc.

**Jin Gwang Industries Co., Ltd.** is not responsible for damage or injury caused in whole or part by acts of God, job site conditions, architectural or engineering design, structural movement, acts of vandalism, or accidents.

No other express or implied warranties of merchantability or fitness for a particular purpose are made by this warranty except for those expressly provided herein. Under no circumstances shall **Jin Gwang Industries Co., Ltd.** be liable for any loss or damage arising from the purchase, use or inability to use this product, or for any special, indirect, incidental or consequential damages. In no case will **Jin Gwang Industries Co., Ltd.** be liable for labor to remove and/or reinstall **ConfiaAd®** Solid Surface, or other similar activities necessary to complete the replacement or removal of the defective material.

This warranty entitles the purchaser to specific legal rights. Other rights may also be available, which may vary from state to state. Some states do not permit the exclusion or limitation of implied warranties or of incidental or consequential damages, so the above limitation or exclusion may not apply to you. To know what your legal rights are, consult your local or state consumer affairs office or your state's Attorney General.

To obtain service under warranty, please contact the company who sold you **ConfiaAd®** Solid Surface. You must provide the original receipt along with proof of purchase and installation of the product that clearly indicates the product purchased and installation dates to obtain service under this warranty. **Jin Gwang Industries Co., Ltd.**'s authorized agents or certified installer must be permitted sufficient time and opportunity to inspect your **ConfiaAd®** Solid Surface, evaluate, and respond to any claims. If the problem is not handled to your satisfaction, please contact our representative directly by writing or calling:

## **Jin Gwang Industries Co., Ltd.**

11-13 Maejari-gil, Opo-eup, Gwangju-si, Gyeonggi-do, 12798, Korea

Tel: +82-31-767-8441

Email: [confiad@confiad.com](mailto:confiad@confiad.com)

[www.confiad.com](http://www.confiad.com)

## 12.2 Limited Commercial Warranty

**Jin Gwang Industries Co., Ltd.** warrants to the original owner of the original installation of **ConfAd®** Solid Surface that **ConfAd®** Solid Surface will be free of manufacturing defects during ten (10) years after the date of original installation.

**Jin Gwang Industries Co., Ltd.** will, at its sole option, repair or replace without charge in accordance with the following if the product fails due to manufacturing defects.

### Terms and conditions

1. This warranty applies only to **ConfAd®** Solid Surface.
2. This warranty applies only to **ConfAd®** Solid Surface that has been permanently installed in commercial occupied structures and has not been moved from the original installation.
3. This warranty applies only to **ConfAd®** Solid Surface that has been fabricated and installed in accordance with the Fabrication Manual for transportation, storage, handling, fabrication, and installation.  
Improper fabrication or installation is the responsibility of the fabricator/installer.
4. This warranty shall be null and void if the product and the installation have not been paid for in full.
5. This warranty applies only to **ConfAd®** Solid Surface that has been properly maintained in accordance with Care & Maintenance available at "[www.confriad.com](http://www.confriad.com)".
6. The customers must register their warranty at "[www.confriad.com](http://www.confriad.com)" within thirty (30) days of installation to be eligible under this warranty.
- 7. This warranty is not transferable.**
8. This warranty applies to **ConfAd®** Solid Surface purchased and installed after Sep 01, 2015.

## Exclusions

This warranty shall not apply to

1. Any products moved from the original place of installation.
2. Product and the installation have not been paid for in full.
3. Any outdoor applications and/or exposure to UV.
4. Flooring application.
5. Improper use or abuse including damage from mishandling of the product, damage from excessive heat or uneven exposure to weather conditions, physical or chemical abuse and damage from improper care and maintenance.
6. Failures due to improper fabrication, installation, handling, care and maintenance.
7. Workmanship of Fabricators or Installers.
8. Any defects that were visible at the time of fabrication/installation and were not avoided during fabrication/installation. Fabricators/Installers are required to perform an inspection of all materials prior to fabrication and again prior to installation.
9. Minor conditions such as scratches, stains, water spots and burns that may be corrected by care & maintenance guidelines
10. Failures due to inadequate support for the installation.
11. Damages from other than manufacturing defect.
12. Seam appearance, seam performance, adhesives, caulk or other accessory items.
13. Temporary marks on **ConfAd®** Solid Surface such as metal marks, fingerprints or other temporary marks by daily living.
14. Exposure to excessive heat. Trivets and heat resistant pads must be used.
15. Any damage caused by the installation of sinks and cooktop.
16. Any products installed in recreational vehicles.
17. Color Variation from samples.
18. Exact color matching from repair or replacement is not guaranteed.
19. Same color and vein between sheets in Marble collection.  
The vein may vary from sheet to sheet and also within a sheet.
20. Acts of Nature such as weather effects, fire, flood, and etc.

**Jin Gwang Industries Co., Ltd.** is not responsible for damage or injury caused in whole or part by acts of God, job site conditions, architectural or engineering design, structural movement, acts of vandalism, or accidents.

No other express or implied warranties of merchantability or fitness for a particular purpose are made by this warranty except for those expressly provided herein. Under no circumstances shall **Jin Gwang Industries Co., Ltd.** be liable for any loss or damage arising from the purchase, use or inability to use this product, or for any special, indirect, incidental or consequential damages. In no case will **Jin Gwang Industries Co., Ltd.** be liable for labor to remove and/or reinstall **ConfiaAd®** Solid Surface, or other similar activities necessary to complete the replacement or removal of the defective material.

This warranty entitles the purchaser to specific legal rights. Other rights may also be available, which may vary from state to state. Some states do not permit the exclusion or limitation of implied warranties or of incidental or consequential damages, so the above limitation or exclusion may not apply to you. To know what your legal rights are, consult your local or state consumer affairs office or your state's Attorney General.

To obtain service under warranty, please contact the company who sold you **ConfiaAd®** Solid Surface. You must provide the original receipt along with proof of purchase and installation of the product that clearly indicates the product purchased and installation dates to obtain service under this warranty. **Jin Gwang Industries Co., Ltd.**'s authorized agents or certified installer must be permitted sufficient time and opportunity to inspect your **ConfiaAd®** Solid Surface, evaluate, and respond to any claims. If the problem is not handled to your satisfaction, please contact our representative directly by writing or calling:

## **Jin Gwang Industries Co., Ltd.**

11-13 Maejari-gil, Opo-eup, Gwangju-si, Gyeonggi-do, 12798, Korea

Tel: +82-31-767-8441

Email: [confiad@confiad.com](mailto:confiad@confiad.com)

[www.confiad.com](http://www.confiad.com)

## 13. MSDS

### 1. Product and Company Identification

- 1) Product Name: **ConfiaAd®** Solid Surfaces
- 2) Company
  - a) Name: Jin Gwang Industries Co., Ltd.
  - b) Address: 11-13 Maejari-gil, Opo-eup, Gwangju-si, Gyeonggi-do, 12798, Korea
  - c) Emergency telephone: +82-31-767-8441

※ E-mail address of the competent person responsible for the Material Safety Data Sheet : confiad@confiad.com

### 2. Hazards Identification

**ConfiaAd®** Solid Surface is not hazardous.

However, operations such as sawing, routing, drilling and sanding can generate dust.

High concentrations of dust can irritate eyes, nose and respiratory tract and cause coughing and sneezing.

Dust generated during handling of this product can contain particles of crystalline silica.

Over exposure to airborne crystalline silica can cause silicosis, symptoms of which include difficulty in breathing, wheezing, coughing, and impairment of lung function.

### 3. Composition / Information on Ingredients

Component	Percentage (%)	CAS Number
<b>Polymethyl Methacrylate (PMMA)</b>	38~42	9011-14-7
<b>Aluminum Tri-Hydroxide (ATH)</b>	57~62	21645-51-2
<b>Other Additives</b>	0.5~1.5	

## 4. First Aid Measures

**4.1. Eye contact:** In case of contact with dust, rinse thoroughly with large amounts of water at least 15 minutes.

**4.2. Skin contact:** Not Applicable

**4.3. Inhalation:** If large amounts of dust are inhaled, or exposed to fumes from overheating, move to fresh air.

**4.4. Ingestion:** Not Applicable

## 5. Firefighting Measures

**5.1. Flammable Properties:** Non-flammable

1) Flash Point: Not Applicable

2) Auto-ignition Temperature: Not Applicable

**5.2. Extinguishing media:** Water spray, dry powder, carbon dioxide(CO<sub>2</sub>), foam

## 6. Accidental Release Measures

Review “**Firefighting measures**” and “**Handling and storage**” sections before proceeding with clean-up.

Use appropriate personal protective equipment during clean-up.

## 7. Handling and Storage

### 7.1. Handling

1) Unloading/Moving

Sheets should be unloaded with a forklift or other lifting device capable of handling pallets safely.

If a lifting device is not available, always carry single sheet in the vertical position, and wear heavy-duty protective gloves and proper safety shoes.

Carrying should be done by two people facing each other on short sides with one hand under to support and the other hand on top to control the sheet.

2) Machining

Do not breathe dust. Do not breathe fumes generated during processing.

Minimize dust generation and accumulation.

If fabricators generate dust, make sure to proceed to the job at the well ventilated area only.

### 7.2. Storage

Store in a cool and well-ventilated area. Avoid exposure of direct sunlight

## **8. Exposure Controls / Personal Protection**

### **8.1. Engineering controls**

Provide for appropriate exhaust ventilation and dust collection at machinery.

### **8.2. Personal Protection**

1) Respiratory protection

: In case of insufficient ventilation, wear appropriate respiratory equipment in compliance with local regulations.

2) Hand protection: Wear protective gloves.

3) Eye protection: Wear safety goggles or face-shield.

4) Others: Safety shoes are recommended whenever handling large pieces of the sheet. Ear protection may be required during machining operations.

## **9. Personal Protection**

**9.1. Appearance:** Solid

**9.2. Color:** Varies

**9.3. Odor:** None

**9.4. pH:** Not Applicable

**9.5. Water Solubility:** Insoluble

**9.6. Boiling Point:** Not Applicable

**9.7. Melting Point:** Not Applicable

**9.8. Specific Gravity:** 1.6~1.8 g/cm<sup>3</sup>

**9.9. Vapor Pressure:** Not Applicable

**9.10. Vapor Density:** Not Applicable

**9.11. Flash Point:** Not Applicable

**9.12. Ignition Temperature:** Not Applicable

**9.13. Explosion Limit:** Not Applicable

## **10. Stability and Reactivity**

**10.1. Stability:** Stable at normal temperatures and storage conditions.

**10.2. Conditions to avoid:** Extreme heat, spark and fire

**10.3. Hazardous decomposition products:** Carbon monoxide, Methyl Methacrylate and smoke.

**10.4. Polymerization:** Polymerization will not occur in solid state.

**11. Toxicological Information**

This product has no known adverse effect on human health.

**12. Ecological information**

This product has no known ecotoxicological effects.

**13. Disposal Consideration**

Can be landfilled or incinerated, when in compliance with local regulations.

**14. Transport information**

Not classified as dangerous in the meaning of transport regulations.

**15. Regulatory information**

**U.S. Federal Regulations**

TSCA Inventory Status: In compliance with TSCA Inventory requirements for commercial purposes.

**16. Other information**

**Additional Information**

Do not use in medical applications involving permanent implantation in human body.

**Note for users**

The information contained in the present sheet is based on our own knowledge, information and belief at the date of the last version.

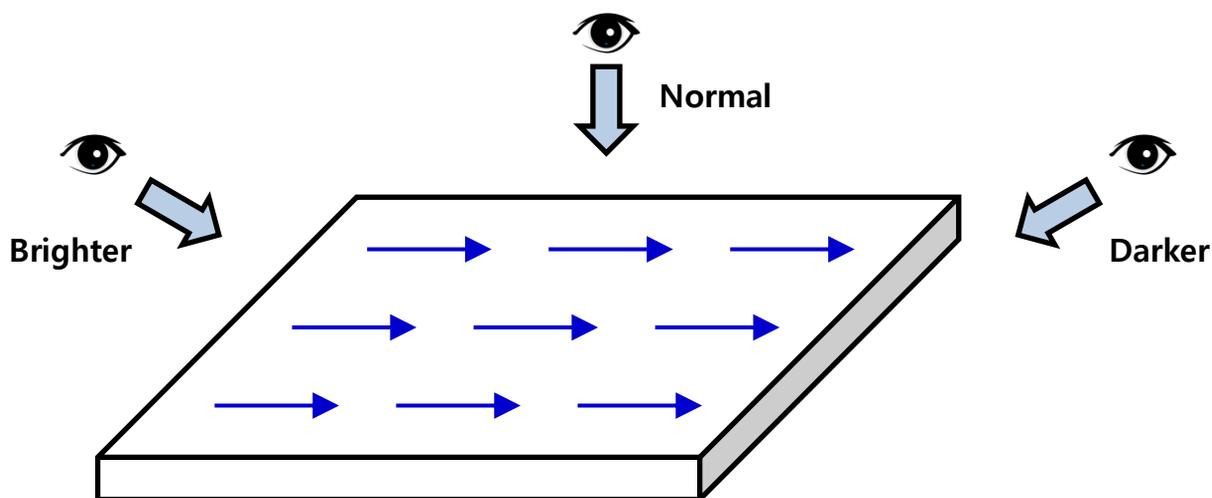
The information given relates only to the specific material designated herein and does not relate to use in combination with any other materials or in any process.

## 14. Technical Bulletins

### 14.1 Metallic Series

ConfAd® Metallic colors (ME Series) have sparkling particles and this makes the sheet color may appear lighter or darker depending on the light and viewing angle.

Therefore, special consideration for fabricating and installing these colors is required.



### Color List

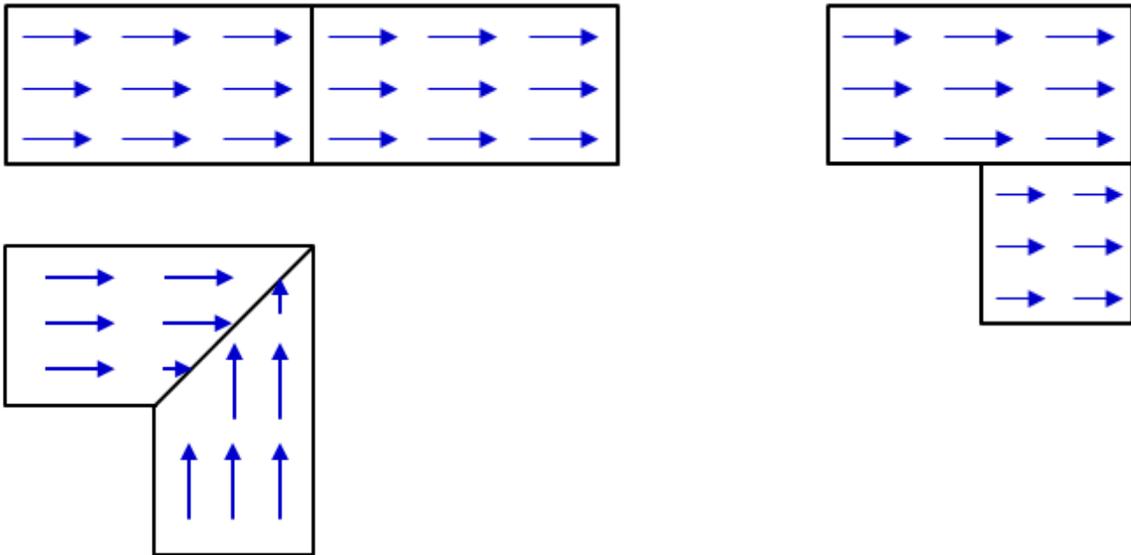
White Sparkle (ME-001)	Ebony Sparkle (ME-002)	Cloud Sparkle (ME-003)
Grey Sparkle (ME-004)	Snow Sparkle (ME-005)	Night Sparkle (ME-006)

## 14.1.1 Seaming

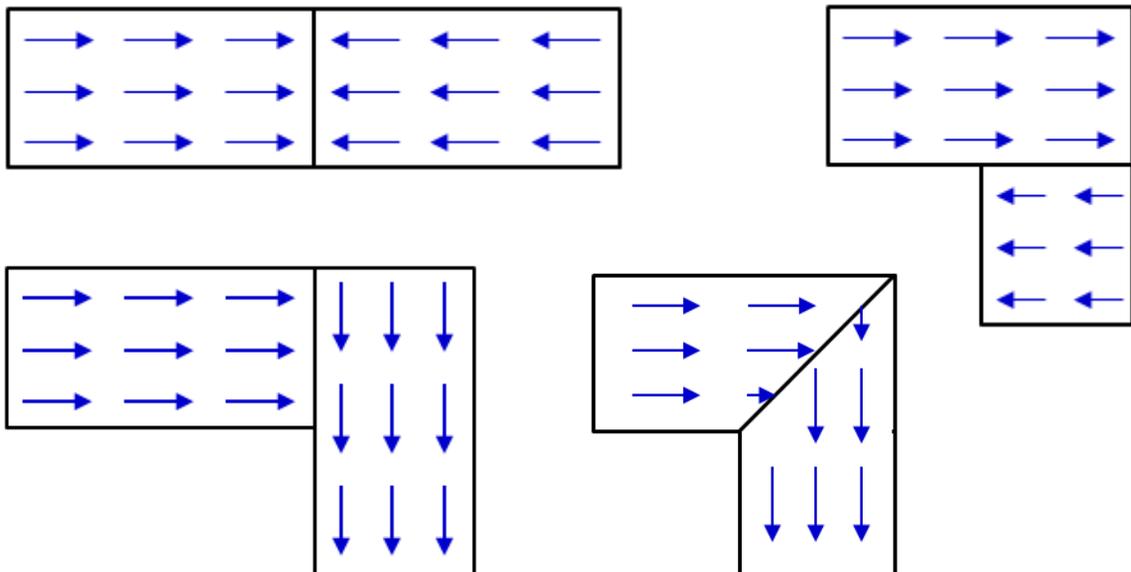
Since ConfAd® Solid Surface Metallic colors (ME Series) have directional effect, for minimizing the visible seam, the fabricators need to maintain the direction of the vein when seaming.

※ **Note that even though two sheets are seamed with same direction, the sheets can have visible change at the seam for some angles.**

### Correct



### Incorrect



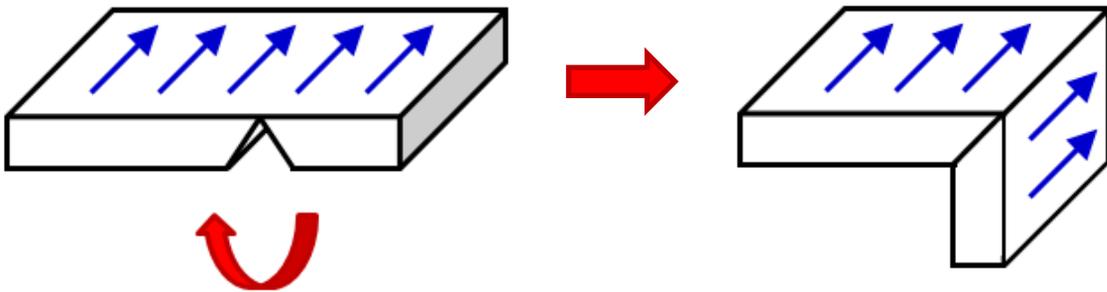
## 14.1.2 Edge

On the edge of the sheet, there are less metallic chips and the chips are less light comparing to the chips on the front side of sheets.

Therefore, for minimizing the visible seams at the edge build-up of ConfiaAd® Solid Surface Metallic colors (ME Series), V-grooving edge is recommended.

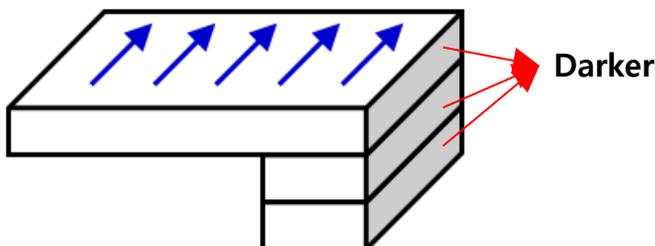
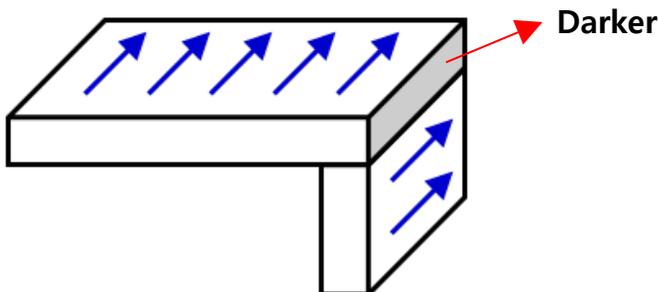
### 1) V-Grooving Edge (Recommended)

V-Grooving edge has uniform appearance over the entire edge surface.



### 2) Other Edges (Drop Edge, Stacked Edge)

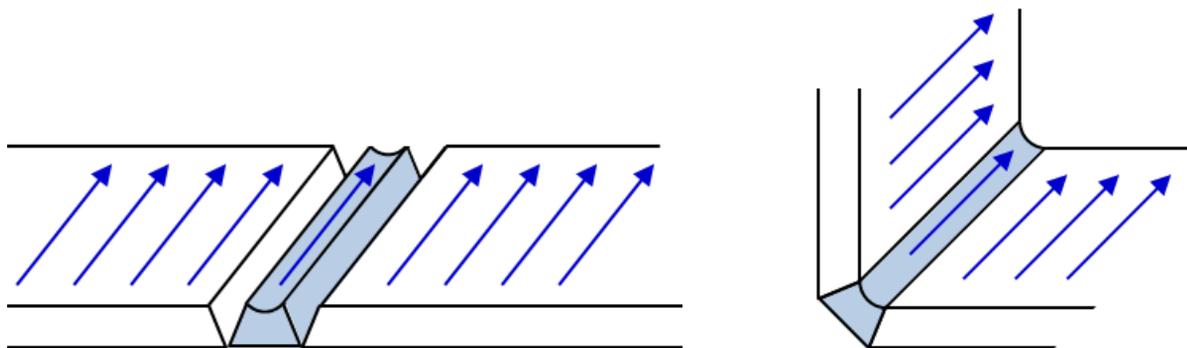
Other edges will have different surface reflectivity between edge and the front surface of the sheet.



## 14.1.3 Backsplash

"V-Grooving" Backsplash can be the most acceptable backsplash option because the metallic chips can be easily seen over the entire surfaces.

However it can also cause a little different reflectivity on some angles.



## 14.1.4 Thermoforming

ConfAd® Solid Surface Metallic colors (ME Series) are not recommended for the thermoforming.

## 14.1.5 Finishing

ConfAd® Solid Surface Metallic colors (ME Series) can be sanded and polished through the standard method.

Please refer to **Chapter 6.14 "Finishing"** for the detailed finishing guideline.

## 14.2 Marble Series

ConfiaAd® Solid Surface Marble colors (MA Series) have beautiful random veins like natural marble. However, this random pattern characteristic can make different result from what customers expected.

Therefore, not only special consideration for fabricating and installing these colors is required but also need to explain to customers about the random veining characteristic per sheets and difference from samples.

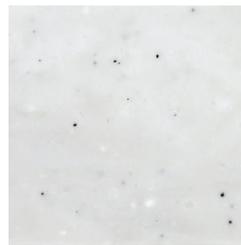
### Color List



**Snow Wave  
(MA-001)**



**White Aurora  
(MA-002)**



**Mercury  
(MA-003)**



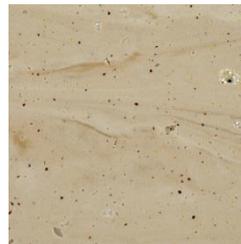
**Rosa Ivory  
(MA-004)**



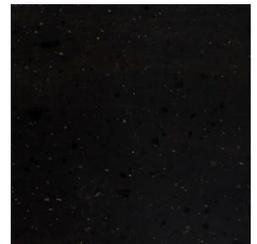
**Ravine Beige  
(MA-005)**



**Banana Shake  
(MA-006)**



**Bark  
(MA-007)**



**Dark Birch  
(MA-008)**



**Lanceline  
(MA-009)**



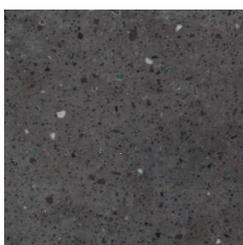
**Taupe Fog  
(MA-010)**



**Cliff  
(MA-011)**



**Cosmic Brown  
(MA-012)**

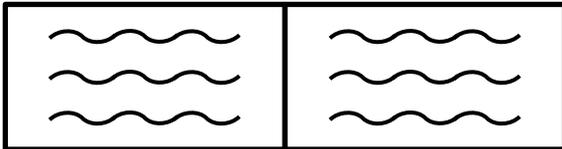


**Mud Flat  
(MA-013)**

## 14.2.1 Seaming

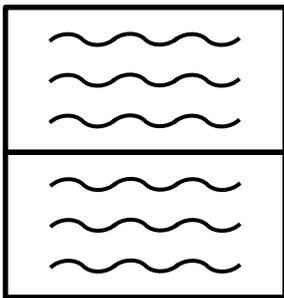
Since ConfiaAd® Solid Surface Marble colors (MA Series) have random vein and directional pattern, for minimizing the visible seam, the fabricators need to maintain the direction of the vein when seaming.

### End to End Seaming



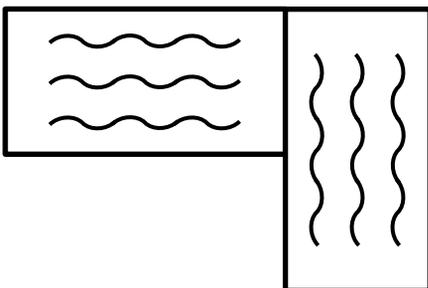
Same direction

### Side to Side Seaming

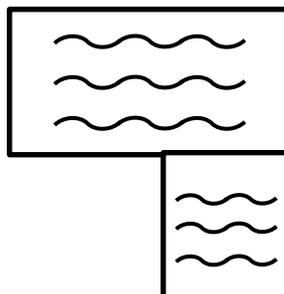


Same direction

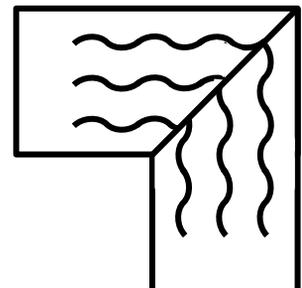
### "L" Shape Seaming



**Seam will be visible.  
Do not recommend.**



Same direction



**Miter L Corner  
for best appearance**

## 14.2.2 Edge

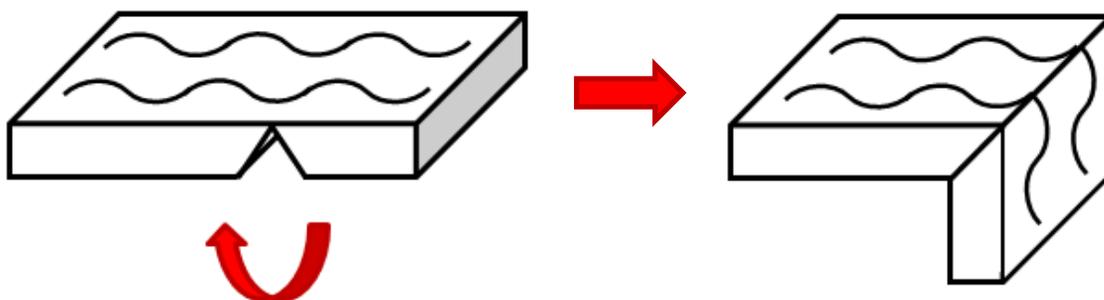
The edge of the ConfiaAd® Solid Surface Marble colors (MA Series) has different color than the top.

Therefore, for minimizing the visible seams at the edge build-up of ConfiaAd® Solid Surface Marble colors (MA Series), V-grooving edge or Drop Edge (Rabbet) is recommended.

### 1) V-Grooving Edge

The vein pattern direction can be retained.

※ Refer to Chapter 6.9.4 “V-Grooving” for the bonding process.

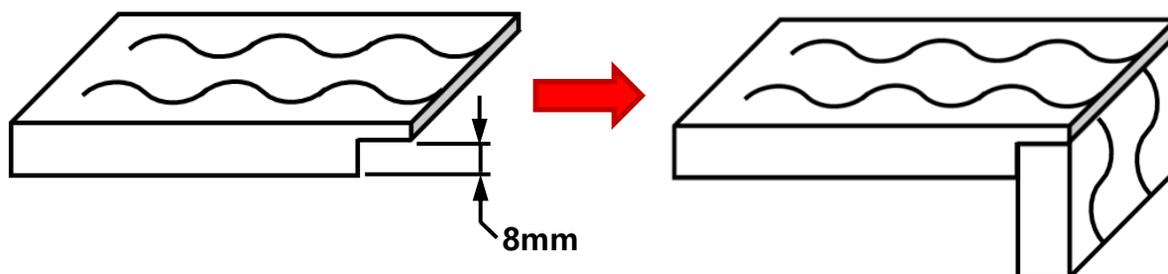


### 2) Drop Edge (Rabbet)

The vein pattern orientation can be retained.

※ Refer to Chapter 6.9.2 “Drop Edge (Rabbet)” for the bonding process.

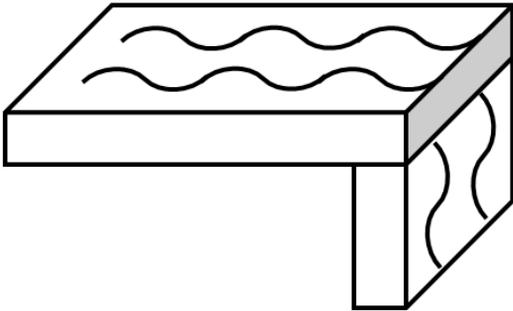
※ Rout the Rabbet around 8mm at the bottom of the front edge.



### 3) Drop Edge (Standard)

The drop edge (standard) generally have discontinued vein pattern.

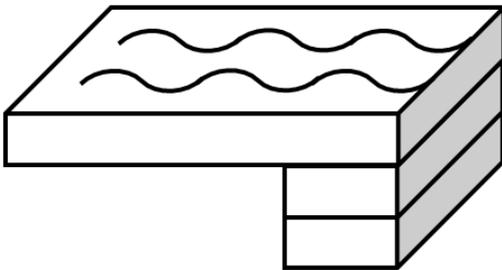
※ Refer to Chapter 6.9.1 “Drop Edge (Standard)” for the bonding process.



### 4) Stacked Edge

The stacked edge may have the unexpected aesthetic results.

※ Refer to Chapter 6.9.3 “Stacked Edge” for the bonding process.



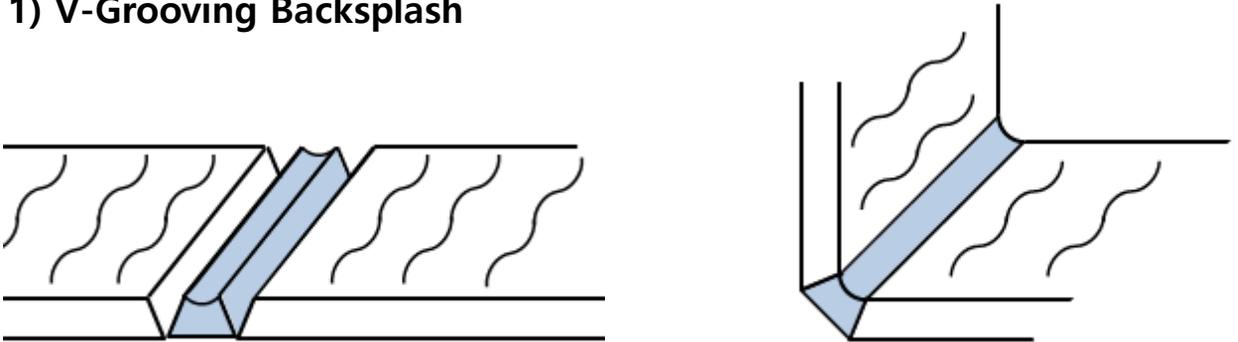
### 14.2.3 Backsplash

The vein pattern and the overall shade change through the thickness.

Therefore, "V-Grooving" Backsplash or "Coved Stack" Backsplash can be the most acceptable backsplash option because the pattern orientation can be retained.

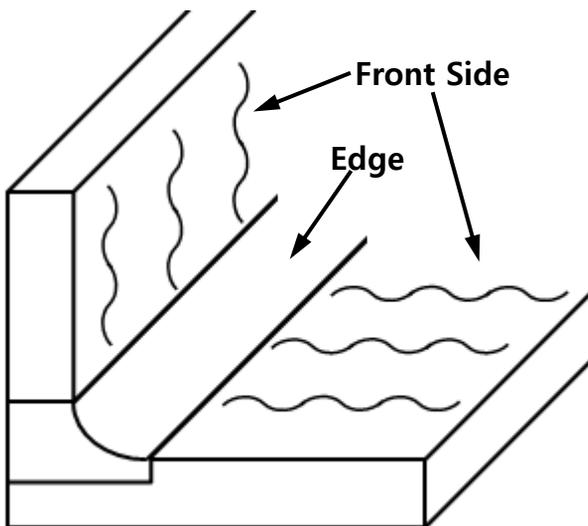
However it can also cause the a little visual break by the trimmed and rounded part..

#### 1) V-Grooving Backsplash



#### 2) Coved Stack Backsplash

Make sure the orientation of the veins and patterns when cutting the strips, and fit them on the countertop following the original direction.



## 14.2.4 Thermoforming

ConfiaAd® Solid Surface Marble colors (MA Series) can be thermoformed.

Please refer to **Chapter 8. “Thermoforming”** for the detailed thermoforming guideline (Minimum Inside Radius, Oven Temperature, Heat-up Time, and etc).

※ **Please do the test on a small piece to find the optimal temperature and time for your oven per colors.**

## 14.2.5 Finishing

ConfiaAd® Solid Surface Marble colors (MA Series) can be sanded and polished through the standard method.

Please refer to **Chapter 6.14 “Finishing”** for the detailed finishing guideline.

## 14.2.6 Warranty

The random vein pattern and visual break at the seam is the characteristics of ConfiaAd® Solid Surface Marble colors (MA Series).

Any damage or dissatisfaction from such characteristics of ConfiaAd® Solid Surface Marble colors (MA Series) is excluded from the ConfiaAd® Solid Surface Limited Warranty.

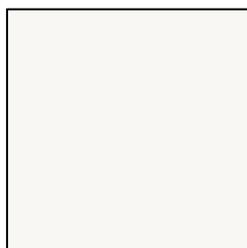
## 14.3 Lucent Series

ConfAd® Solid Surface Lucent colors (LU Series) have translucent feature.

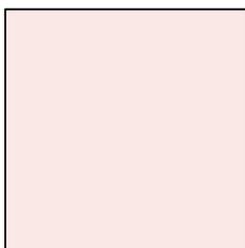
Therefore the additional fabrication considerations are needed especially for back light condition.

Please refer to the following Lucent colors' characteristics for the proper fabrication.

### Color List



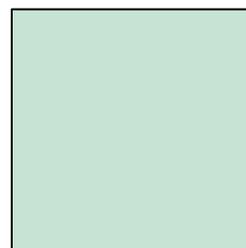
**Mist**  
**(LU-001)**



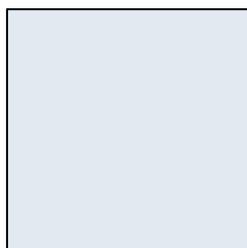
**Lucent Pink**  
**(LU-101)**



**Lime**  
**(LU-201)**



**Emerald**  
**(LU-251)**



**Sky**  
**(LU-301)**

## 14.2.1 Seaming

Although **ConfAd®** Solid Surface Lucent colors (LU Series) have seamless joint under no back light condition, under “**Back Light Condition**”, the seam can be visible depending on which adhesive you use and the fabrication method.

For minimizing the visible seam line in “**Back light Application**”, strictly follow the instruction as below.

- Use a new and sharp saw blade or trim off with CNC router.  
Clean mirror-cut is mandatory.
- Before bonding, clean up the edges.
- Use **ConfAd®** Seamless Joint Adhesive “Best” Color.
- Joint width should be no more than 1µm.
  - ※ Do not apply too much pressure to the seam because this may squeeze all the adhesive out. And it will cause the weak seam.
- Remove the excess adhesive on the back side.
- The sheet needs to be properly finished both side (Front and Back side).
- Choose low heat generating light source.  
Exposure to the high temperature can deform the sheet and cause color changes.
- Do not use reinforcing materials under seam line in case of back light application.
- Remove small scratches because they are very visible in “**Back Light Condition**”

## 14.2.2 Thermoforming

**ConfAd®** Solid Surface Lucent colors (LU Series) can be easily changed in color during heating. So, normally thermoforming is not recommended for Lucent Colors. However, the thermoforming may be done by fabricators after enough preliminary tests. (Heat-up Time, Temperature, Minimum Radius)

※ **Minimum Radius 130mm.**

※ **Never exceed 12 minutes heat-up time at 160°C.**

Please note that after molding, higher quality finish should be done because of the possibility of transfer of mold texture.

## 14.2.3 Finishing

**ConfAd®** Solid Surface Lucent colors (LU Series) can be sanded and polished through the standard method. But in case of backside finishing, the special consideration should be given to sanding quality, scratches and etc.

Please refer to **Chapter 6.14 “Finishing”** for the detailed finishing guideline.