



ARCHITECTS & DESIGNERS PRODUCT MANUAL



With less than 20% crystalline silica
Use of recycled materials
A new vision for a better Impact in our Environment

4R Technology applied in the production of 4R Surfaces results in less waste ending up in landfills and delivers a lower carbon footprint in the production of the finished product. We are dedicated to set forth the path for others to follow. As we have always stated: perfection is an attitude.

REDUCE

Less than 20% crystalline silica

RECYCLE

Recycled materials such as glass or other components are incorporated in the body.

REUSE

Recycling nearly 100% of the water required in the manufacturing process.

RESPECT

Lower environmental impact.
Up to 70% reduced crystalline silica when compared to traditional quartz surfacing.



Nano-Ink Technology

Under high temperature and high pressure, Nano Ink Technology, which uses a patented 5D nanotechnology, penetrates into the surface of 4R, delivering authenticity of color and pattern.

EASE OF FABRICATION

The fabrication process of 4R Surfaces requires no changes in processing techniques when compared to traditional quartz surfacing. No changes in cutting techniques, consumable tooling, adhesives or handling of the material. Mitering is recommended for edge profiles.

TRUE NATURAL BEAUTY

Amazing color, veining and texture, with a real and natural appearance.

INK DEPTH

Nano-INK technology injects the ink up to 1mm under the surface avoiding the drawbacks of printing a pattern that is limited to the top surface only. This drastically improves the stability of colors, creates a deep 3D effect, and provides better resistance to scratches.

ETERNAL COLOR

Color remains unchanged and stable over time.

HIGH-DEFINITION PRINT

Unsurpassable high-definition sharpness and clarity.

DEPTH AND TRANSLUCENCY

Supreme Authenticity: Thanks to an even purer translucency, it provides each pattern with a deeper visual strength.





In the pursuit of perfection, 4R Surfaces evolves toward a new concept of engineered surfaces. A new vision committed to environmental sustainability, featuring the ultimate technology to obtain a durable and resistant product that perfectly imitates natural stone. The realization of this vision is EcoPress - combining an environmentally friendly formulation in the composition of the product with patented printing technology to present a printed surface that will revolutionize the stone market and lead a new stone generation.

What is EcoPress?

EcoPress is a unique surface that has been developed with our revolutionary 4R Technology named after its four major pillars: Reduce, Recycle, Reuse and Respect.

By incorporating up to 70% of recycled materials, such as glass, 4R Surfaces achieves a significant improvement in the use of post-consumer content, simplifying the manufacturing process, and reducing the use of raw materials.

The use of recycled materials combined with a meaningful reduction in crystalline silica, means 4R Surfaces has the lowest environmental impact among the other engineered stones in the market.

In addition, nearly 100% of the water required in the manufacturing process is reused.

The Importance of a Natural Appearance...

However, 4R Surfaces's commitment with perfection is not only in the process but also in the outcome. To create a surface which flawlessly imitates natural stone has always been our ultimate goal. For this reason, 4R Surfaces brings a translucency equivalent to real marble, patterns with unbelievable white backgrounds with no visible grains, an unparalleled visual depth thanks to the sharpness and realistic details of each vein, and better light reflection and brightness than any other existing engineered stone.



4R SURFACES: PRODUCT DESCRIPTION

4R Surfaces grew from our strong desire to present the world with the most natural, believable marble designs. The result? A peerless surface with high-definition character movement and sharp, clean, tight lines, which in previous generations often appear blurry or washed out.

We produce surfaces with a 'no grain' surface, with a better light reflection and higher shine. No other in the market is brighter, or whiter. What's more, 4R Surfaces's translucency is unmatched. And 4R Surfaces's unparalleled depth is evident through soft and subtle undertones of color beneath the surface.

Precision and efficiency define our material. Whether for private quarters, work areas or public spaces, 4R Surfaces represents a solid asset that ensures value for money and return on investment for years to come.

SIZE

The slab dimensions of 4R surfaces are: 126"x63" (3200 x 1600 mm).
These options give fabricators the flexibility to maximize their utilization of the material.

THICKNESSES

The slabs are available in 20 mm.

FINISH AVAILABLE: Polished



3200mm/126"

1600mm/63"

4R SURFACES: PRODUCT DESCRIPTION

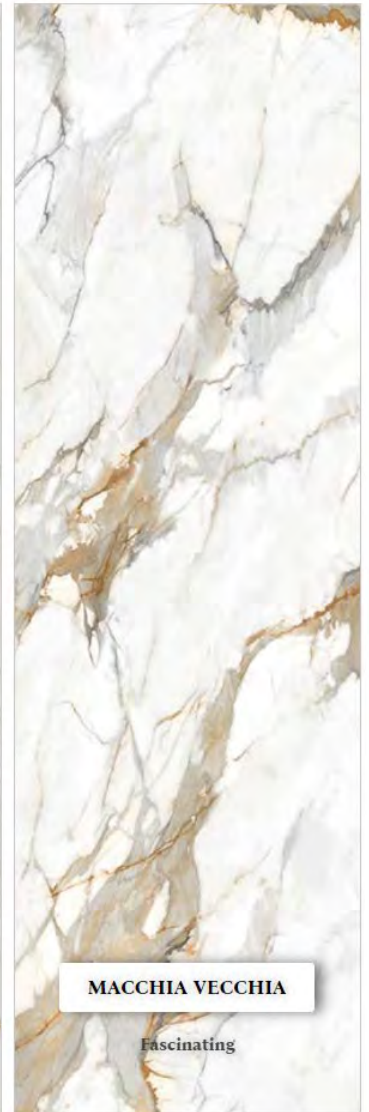
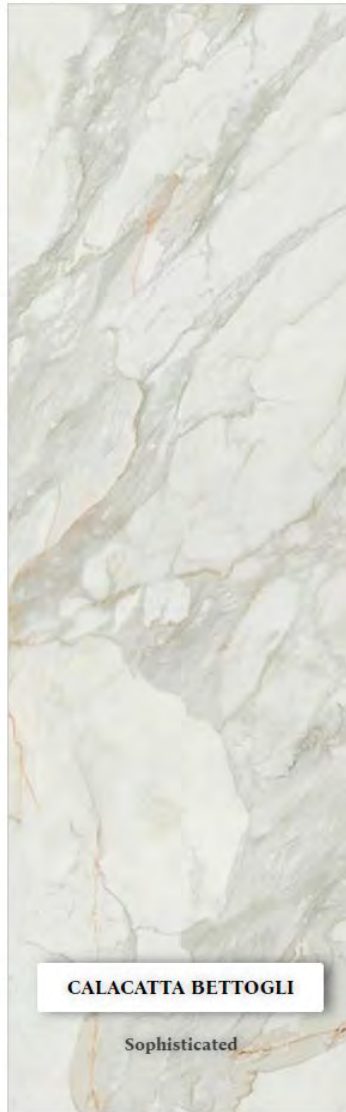
APPARENT DENSITY	ASTM C97/C97M-09	2.25g/cm ³
WATER ABSORPTION	ASTM C97/C97M-09	0,01%
MOH'S HARDNESS	EN101	5
FLEXURAL STRENGTH	ASTM C880/C880M-09	97.66MPA
ABRASION RESISTANCE	ASTMC241/C241M-13	36
LINEAR THERMAL EXPANSION COEFFICIENT	ASTM C531-00(2012)	32.5x10 ⁻⁶ /°C
CHEMICAL RESISTANCE	ASTM C650-04(2009)	Not affected
BREAKING STRENGTH	ASTM C 648-09	5660 N
IMPACT TEST	With reference to ANSI 2124.6-2007 Section 4.2.1	No visible damage
Cigarette Bum Test	With reference to ANSI 2124.6-2007 Section 5.4	No visible damage
Heated Pan Test	With reference to ANSI 2124.6-2007 Section 5.6	No visible damage

4R SURFACES COLLECTION

A carefully curated selection of marbled stones featuring majestic veins against bright and pure white backgrounds.

4R Surfaces reinterprets the most exquisite Italian marbles to bring patterns with a profusion of details, richness in their nuances and a great sense of realism.

A collection designed to stand the test of time and be the focus of attention of any project. Make a bold statement by adding one of these colors to your kitchen, bathroom or accent walls.



FABRICATION GUIDE: COMPLETE INSPECTION OF PRODUCT

VISUAL INSPECTION OF SLABS:

Always inspect all material before fabrication. 4R Surfaces replicates marble and is a veined material that has a non-directional pattern. During the layout process it is very important to use extra care in layout relative to your seam locations. 4R Surfaces vein distribution can be different throughout the slabs and at all edges, whether factory or fabricated. Our veined patterns will require a somewhat more careful/specialized layout to produce the optimal esthetic look.

Color-matching slabs before fabricating is a very important step. It is typical and expected for 4R Surfaces slabs to exhibit slight color variation between batches and/or production cycles, due to the complex blending of natural minerals and raw materials.

If your job requires more than one slab you will want to check the 4R Surfaces labels to check batch number along with the shade number of each slab. After inspecting all slab numbers, it is important to remove the protective plastic film. Now you will want to visually inspect slabs for color variation, color match and any other defects before cutting material.

During layout don't forget to consider backsplashes. It is important that they color match and have vein patterns similar to those on the countertop.

Layout is one of the most important processes in fabricating 4R Surfaces and vital to ensuring the best end result. Because 4R Surfaces closely replicates the look of natural marble, it requires a little additional attention in this process to maximize the homeowner's lasting enjoyment.

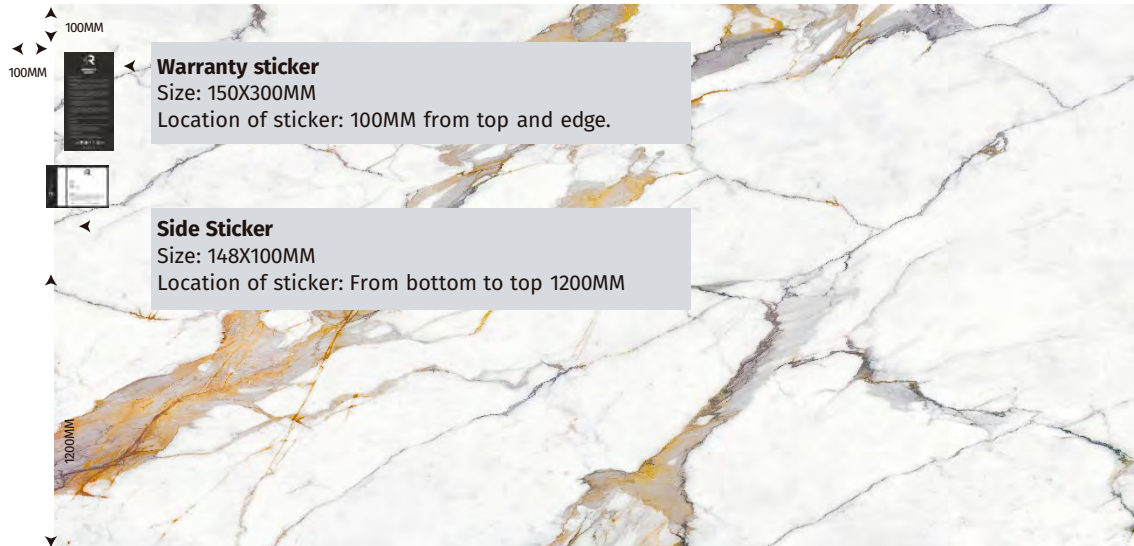


4R SURFACES: SLAB INFORMATION

4R SURFACES SLAB LABELS

Standard 4R Surfaces Label on Front of Slabs.

Each slab will be put three stickers: Warranty Sticker, Slabs Edge Sticker, Tear Off Paper



Tear off sticker and edge sticker information:

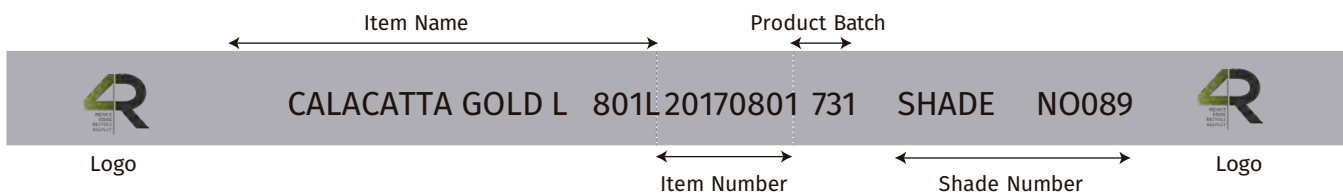
1. Item name
2. Item number
3. Production batch
4. Shade number

For example:

CALACATTA GOLD L 801 1717
SHADE005
are on both stickers and they must be the same.



Standard 4R Surfaces Label on the Back of labs



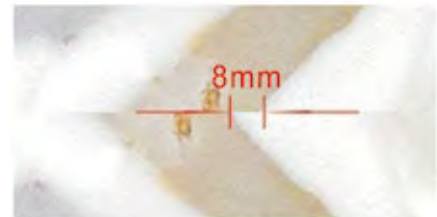
4R SURFACES: SLAB INFORMATION

FABRICATION GUIDE: COMPLETE INSPECTION OF PRODUCT

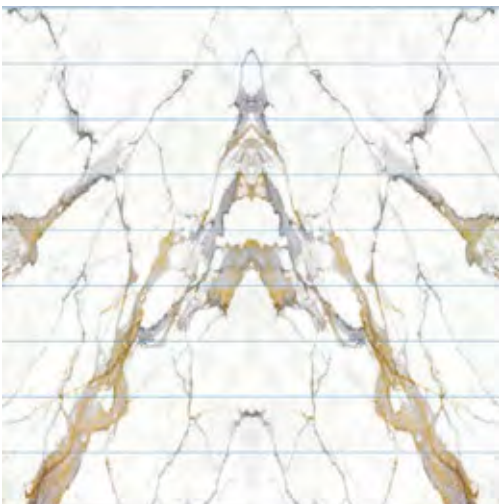
BOOKMATCH STANDARD: 4 EDGES BOOK MATCHED



STANDARD OF BOOK MATCHING



10mm unconnected tolerance



In any batch, no less than 70% of slabs will be bookmatched. For the remaining 30% that may not be bookmatched, it is acceptable that the quantity of L slabs and R slabs may not be equal.

FABRICATION GUIDE: COMPLETE INSPECTION OF PRODUCT

WAYS OF PACKING 4R SURFACES SLABS

Standard 4R Surfaces Label on Front of Slabs.



LOCATION OF STICKERS ON THE SLABS

The stickers are put on the right-hand edge of the left design slabs. The stickers are put on the left-hand edge of the right design slabs.

WAYS TO PACK THE SLABS IN BUNDLES

Slabs of book matched left-hand and right-hand design slabs are packed together in the same bundles. Book matched labels will be put on the edge of slabs. Please use the book matched slabs with the same book matched labels.

Slabs of non-book matched but with same shade of left-hand and right-hand designs are packed in the same bundles.

For orders of 30 slabs or more, there will be at most 3 separate shades. If the number of shades exceeds 3, then customer's approval will be sought before shipping.

SUPPORT REQUIREMENTS

Structures with support on four (4) sides. Structures supported on four sides do not require any additional support for 2cm material if the countertop depth is less than 26" and the countertop length is less than 118".

However, if the above dimensions are exceeded, support will be required every 36".

Structures with support on three (3) sides (i.e., dishwashers, frameless cabinets, desks, and Lazy Susans). Structures supported on three sides require additional support for 2cm material as follows:

- 2cm material needs support every 24".



OVERHANG/CANTILEVER REQUIREMENTS:

- Overhangs cannot exceed 1/3 of the countertop depth and must have a minimum length of 24".
- Material that is 2cm requires support every 24".
- Overhang ratios require that two-thirds of the width/length of the material to be used be supported; one-third of the width/length of the material to be used can be unsupported (an overhang).
- No cutouts or cored holes are permitted on any overhangs.
- Additional support (i.e., support bars or 5/8" plywood) may need to be added to meet additional span requirements.
- Overhangs that exceed cantilever rules will need to add columns, corbels, or legs to be properly supported as follows:

Overhang 2cm material	No Support Needed ≤ 8"	Corbels Required > 8"	Columns Required > 18"
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- Corbels should always be mounted to a stud for proper support of the material.

RECOMMENDED SUPPORT MATERIAL FOR CABINETS:

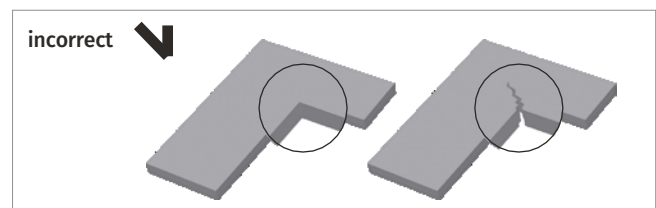
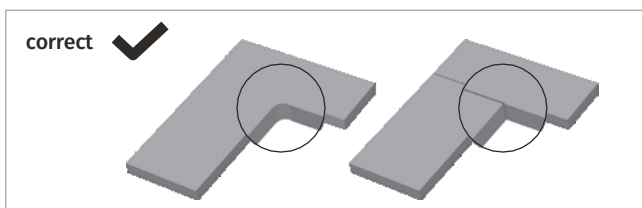
- Plywood, wood, medium density fiberboard and structural steel are the recommended support materials for cabinets that need additional support for 4R Surfaces.
- Materials or products that are not moisture resistant, like oriented strand board and particle board, are not acceptable as support material.

The above information should be taken into consideration during the templating and layout/measuring process. This will help to prevent any problems during the fabrication and installation process. Not following the procedures in this fabrication guide voids any warranty provided by 4R Surfaces.

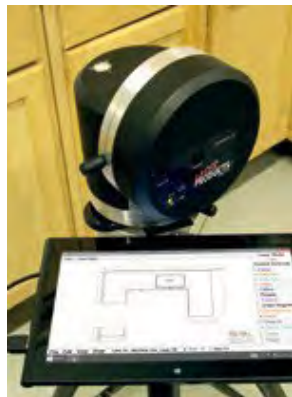
DETERMINE SEAM LOCATIONS:

During the layout process, determine all your seam locations. This is very important to ensure the optimum aesthetics of the material and the kitchen. Seams should never be placed in the following locations:

- Through the center of sink cutout.
- In places where there is direct sunlight.
- Above dishwashers



FABRICATION GUIDE: TEMPLATING: JOB LAYOUT & MEASUREMENT



DIGITAL TEMPLATING:

Today there are many digital templating methods from which to choose. Digital templating is used to capture accurate countertop dimensions and configuration data. Digital templating has the advantage of being able to send/relay the digital information directly to compatible fabrication equipment, such as computer numerical control (CNC) machines, bridge saws and waterjets. These digital systems use lasers, digital cameras, and point-to-point digitizers. Digital templating technology is a faster, more accurate and efficient way to measure jobs because information can be transferred digitally to your fabrication equipment.



MANUAL TEMPLATING:

Handmade fabrication templates are created to accurately transfer the measurements and configurations from the job site to the fabrication shop. The most common items used are thin plywood, luan strips and cardboard. Job drawings containing the specific job information and are very important to support the actual template.

It is important to capture all necessary information to accurately fabricate all aspects of the job, including sink and appliance centerlines, faucet hole locations, finished edges and overhangs. It is recommended that all appliances, sinks, cooktops, or any item that requires a cutout on the countertop be on site when the job is templated.

INFORMATION TO GATHER FROM HOMEOWNER:

- Choice of 2cm material
- Name of 4R Surfaces slab selection
- Determine seam locations if needed
- Edge profile
- Backsplash
- Sink location
- Faucet location
- Appliance locations (i.e. cooktop/range, refrigerator, dishwasher)
- Location of additional items (i.e. soap dispenser, sprayer)
- Clarify inside corners (in order to get a 3/8" minimum radius, fabricators have to use a 3/4" bit. 4R Surfaces is requiring inside corners to have a 3/8" minimum radius.)

Very important regarding cabinets:

Make sure that the cabinets are finished and installed properly. Fabricator must verify that all cabinets are level. The top of the cabinets must be true and flat with no more than a 1/16" slope over the span of 18". The cabinets must be adjoined to each other and secured to the immediate wall. All cutouts and seams must be properly supported; similarly, there should be extra, structural support around the dishwasher.

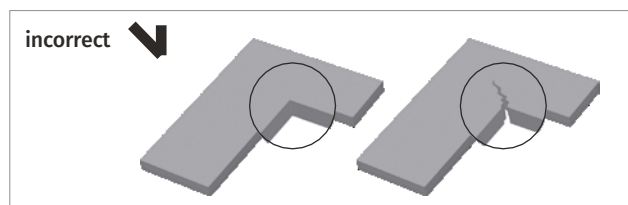
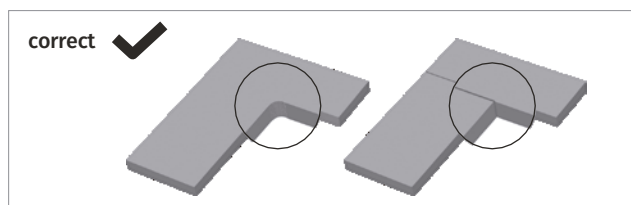
CUTTING:

- All equipment that is used to cut 4R Surfaces should always be kept cool with a sufficient amount of water. **ALWAYS AVOID EXCESSIVE HEAT WITH ALL DIAMOND-CUTTING TOOLS.**
- The first cut of your 4R Surfaces slab should be made along the largest part of the slab and then proceed to the shortest.
- When using a bridge saw, never plunge cut.
- Important: Never cut inside square corners when fabricating 4R Surfaces. This can create stress points in the countertop and can result in cracking. **ALWAYS USE A DIAMOND CORE BIT FOR ALL CORNERS OR RADIUSES.**
- Inside corners that are fabricated on a single slab must have a minimum of a 3/8" radius.
- Never use cross cutting when fabricating 4R Surfaces countertops. Always use a diamond core bit to create your radius. Please clarify: This should always be used on inside corners, so any internal angled corner must have a radius. **NEVER CROSS CUT!**
- Remember that 4R surfaces slabs contain resin, which can cause warping or bowing depending on the weather and how they are stored. If bowing or warping does exist in the slab, cutting the slab into component parts will release the tension and flatten out the pieces.

5. CUTOUTS:

This can be completed with several different types of equipment. A bridge saw can be used for straight cuts, but a radius needs to be cored with diamond core bits with no cross cutting. The same rules apply to CNC machines, which are also very popular. A waterjet can also be used with the proper abrasives and water pressure.

- L- or U-shaped countertops with inside corners should always be fabricated from a single slab and must have a minimum of a 3/8" radius. Always keep in mind that the larger the radius, the stronger the corner.
- If the distance between the cutout and the seam is less than 6", the seam needs to be supported. This can be achieved during the layout process by making sure that all seams are at a cross member of the base cabinet; otherwise, additional cross members need to be added.
- Internal cutouts on all inside corners should have a 3/8" radius at minimum.
- Cutouts for all drop-in sinks, cooktops, outlets, slide-in stoves, etc. should include an extra 1/8" from the edge to allow for expansion.
- Cutouts range from simple, core holes for faucets and soap dispensers to complex cutouts for specialized equipment. It is best to have all equipment on the job site during the installation process as this is the safest way to determine the shape and size of the core or cutout.
- Always refer to the manufacturer's recommendations when available.
- The customer should make the final decision regarding the location and the size of the cutout in their countertop and sign off on this.
- Additional support should be added to both ends of the cutout if the base cabinet cross bars are not within 3" of cutout.
- All hot cutouts (i.e. cooktops) require that 9-mil aluminum foil tape (heat tape) be used to prevent the transfer of heat to 4R Surfaces. Always follow manufacturer's guidelines.



LAMINATIONS:

When laminating, it is important to make sure that the lamination piece is the full length of the top piece and that the corners are cut at 45 degrees. If for some reason the two laminated pieces must be joined, the joint must be cut at a 45-degree angle. The use of a mitered end cut reduces stress on the material that may cause stress fractures.

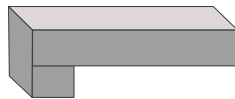
The lamination strip should be cut from the same slab as the countertop surface material to ensure a color match. When cutting the piece to be laminated, add the lamination piece size to your cutting measurements to ensure that a lamination strip of the correct length and color is available for the lamination process. A 45-degree corner joint is recommended to minimize the stress on the corners.

- Use full-length lamination pieces if possible.
- For long countertop runs where a joint may be required, make sure that the joint in the laminated piece is at 45 degrees to minimize stress points.
- When clamping and gluing miter joints, we recommend the use of Mitsubishi G-Tape or a tape of similar properties. For standard 1 1/2" mitered edge profiles, tape should be applied prior to glue every 8" to 10". As edge profiles become taller (3" to 8") tape will need to be applied more frequently to support the weight of the apron piece being attached. If mechanical clamping systems or jigs are being used to secure the miter during the gluing process, be aware that both uneven clamp pressure, or clamp pressure higher than required can introduce warpage into the finished product.

Examples of Mitered and Butt Joints:



Square Mitered



Square Laminated

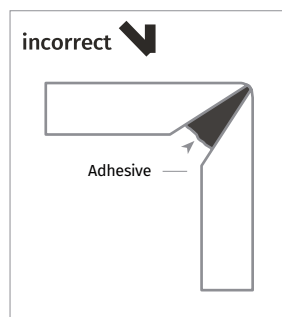
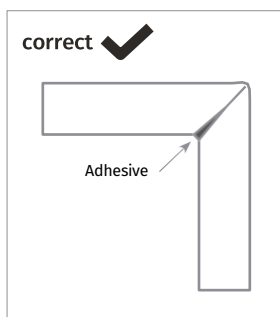
Butt Joints (Square Laminated) are not recommended as you will have an interruption of pattern at the lamination joint.

Mitered Edge:

A mitered edge is one with a perfect, 90-degree angle. This is created by joining two pieces of 4R Surfaces, each with a 45-degree angle. This is typically done with 2cm material. The longer the apron, the harder it is to hide the seams because it is more difficult to clamp. It is never recommended to have a mitered edge over 4" unless a special support is added.

Adhesives:

We recommend that a cartridge-style acrylic or epoxy that is already color matched for 4R Surfaces be used. 4R Surfaces is translucent, so solid colors will not match the translucency of the stone. Acrylics and epoxies have a chemical attraction to the stone and will provide the tightest seams. This is very important for mitered edge details because, when properly done, the adhesive is not visible.



POLISHING/EDGE DETAIL:

Polishing: It is very important to select the right polishing pads for 4R Surfaces. Please note: Do not use polishing pads that have colored resin. While such pads can work well with granite, they require an excessive amount of water and can transfer the resin's color to the edges of 4R Surfaces. We recommend using only white resin pads for all applications, whether hand polishing, or using an automatic edge polisher or a CNC machine.

1. Rigid Backer Pads: Flexible backers work well for concave profile edges, such as ogee edges. The need to use a flexible backer on most other profiles is not needed. Keep in mind automatic edge machines all use extremely rigid polishing tools and backer pads; these machines will produce a far better edge than what many fabricators can do by hand.



2. Polishing Pads: Common problems include both using too much water and not enough water, and not using the proper polishing technique. The Sequence of grits shown above for both Polished and Hone finishes are a guideline for achieving a polish equal to the factory finish.

- When too much water is used while applying pressure to the center of the pad, the water gets trapped in between the pad and the stone, causing a hydroplaning effect. This causes the water to escape to the outer edges of the pad, making it difficult for the polishing pad to effectively polish the edge or edge's surface. This

will result in a spotty polish.

- When too little water is used, the polishing pads tend to flex or cup outwards around the center of the pad (mainly with higher grits). This causes the outer edges of the polishing pad to touch the surface but will not allow the center of pad to polish. The tendency is to apply more pressure, which also leaves a spotty polish.

- When polishing the edge detail on 4R Surfaces, be sure to use the entire polishing pad surface, which is stated in the tips below. When polishing any bullnose edge, it is important to use the center of the pad only as it will give the proper water distribution for the pad and the stone.

- Never use a final buffing pad for 4R Surfaces. These come in black and buff and contain different chemicals and no diamonds and are meant to bring granite to a high polish. The final step for polishing 4R Surfaces is to use a grit level of 3000.

- Dry polishing the edge profile may cause overheating of 4R Surfaces. Excessive heat to the stone can alter the physical properties of the slab which can cause micro-fissures not visible to the naked eye. This can lead to chipping, discoloration and a poor, uneven polish. Never use dry polishing pads on 4R Surfaces.

When polishing the top edge of the miter after gluing has been completed, we recommend the following steps;

- 1. Begin the process with a 400 polishing pad applying very light pressure on the tool. Repeat this process with a 600 polishing pad, again applying very light pressure on the tool. Fabricators who routinely work with porcelain or sintered stone products typically must exert a much higher degree of pressure on the tool due to the extreme hardness of the materials they are polishing. If this process is adhered to, the visible line that appears at the transition from the top surface to edge in 4R surfaces will be much less visible than the typical result you would see in either a porcelain or sintered stone slab.***

2. 4R Surfaces should never be polished on the top surface of the manufacturing finish.

Polishing Tips: When polishing any edge detail on 4R Surfaces you should use the proper amount of water. Polishing pads with grit levels of 50-400 have a higher concentration of diamonds and require less water; a trickle from your center water feed will be sufficient. Higher 800-1,500 grit pads have less diamond content and require more water. Using the proper water flow allows the pads to work faster.

Polishing should be done in circular motion, utilizing the edges of the polishing pad as it rotates from the top half of the edge to the bottom half as it moves down the piece. While polishing, you will feel resistance with each grit level, which is the diamonds polishing. Allowing the diamonds to do the work requires less pressure from the polisher. When resistance is no longer felt, it is time to change the polishing pad to the next grit. Follow this procedure until you arrive at the final grit level.



3. Air/Electric Polisher RPM:

The rpm for all air/electric polishers should be between 2,800-4,000. It is best to start at 2,800 rpm and increase as needed. Anything over 4,000 rpm could result in burning or smearing the resin on your edge detail. This is where the color of the resin on the polishing pad makes a big difference. If the edge is burned with a white resin polishing pad, it can be easily removed with denatured alcohol.

However, the dye in colored resin polishing pads can create a major problem when working with white, translucent 4R Surfaces.

4R SURFACES: INSTALLATIONS

INSTALLATION:

It is important that cabinets are leveled, and shimmed where necessary, to 1/16" tolerances prior to final countertop installation. Check all cabinets for level.

- After the support system is installed and leveled, installation of the 4R Surfaces countertops can begin. Measure cabinets and verify that the pieces will fit before placing the 4R Surfaces on the countertop.
- Bring the pieces in one at a time, and test fit them in their proper place on the cabinets. Adjust as necessary to ensure a good fit and proper alignment. Always make any necessary cuts outside, cutting wet to control dust.
- Space should always be allowed as 4R Surfaces needs room to expand. Each countertop requires at least 1/8" at each wall for expansion and contraction. Fill the gap between the wall and counter- top with silicone.
- After all of the pieces have been adjusted for fit, you will need to attach the tops to the cabinets and support strips using caulk that is 100 percent silicone. Apply silicone caulk approximately every 8"-12" around the perimeter of the cabinet, and at the cross supports. Do not use epoxy adhesive, acrylic adhesive or the product Liquid Nails. The purpose of the silicone is to allow the top to expand and contract as needed.
- Use extra silicone on all corners and joints, and around all cutouts.



SEAMS:

- Seam tolerance is generally the same for all hard-surface countertop material. The recommended seam width is 1/16"; recommended seam tolerance is +/- 1/32". Both pieces should be level across a seam, with a tolerance of +/- 1/32". One side of a seam can be slightly raised, or one side can be slightly lowered, but not both.
- The two edges to be seamed must be cut straight and true. If a waterjet is used for cutting, the edges should be ground flat to remove any grooves from the cutting process.
- Test fit to make sure that the two pieces to be seamed together form a tight, level and uniform seam before applying adhesive. Shim and level pieces if required. Also, check to make sure the color and vein pattern matches across the seam.
- Always clean the joined edges with denatured alcohol and wipe clean with a white cloth. Apply strips of tape to the top and underside of the two pieces to be joined/seamed. Put tape on each side of the two pieces, leaving about 1/4" between the pieces. This prevents adhesive from dripping into the cabinets and allows for easy clean-up on the top surface.

Tip:

If possible, use a pneumatic seam setter with a vacuum and posts/pins to level and to make seams as tight and inconspicuous as possible. Several manufacturers sell this equipment. Seams should never be more than 1/16" wide.

ADHESIVE:

- Seams should be made using a pre-mixed cartridge adhesive, which can be either acrylic or a two-part epoxy system.
- Insert the adhesive cartridge in the seaming gun with a fresh, disposable mixing tip. Always purge the adhesive (generally the length of the tip you are using) with your cartridge adhesive system to ensure that the adhesive and hardener is properly mixed before seaming the material. After each use, remove and replace the tip, otherwise the remaining adhesive will cure in the tip.

Remove the used tip and replace the original cap for an airtight seal. The normal cure time for acrylics is about 15-20 minutes in 70° F. During the summer month's hot temperatures, work time is reduced. During winter's colder temperatures, work time is increased. The cure time for two-part epoxy systems can be anywhere from 2-6 hours.

4R SURFACES: INSTALLATIONS

SINKS:

We recommend that the sink manufacturer's guidelines be followed when installing all sinks, whether they are top mount or undermount.

- We recommend that all sink installations be fully structurally supported without reliance on the 4R Surfaces as a form of support.
- Under no conditions can mechanical fasteners (screws, nails, etc.) be affixed directly to 4R Surfaces. These items will rust with moisture and the rust will bleed through the stone.
- For under mount sink installations, follow the minimum edge profile recommendations around the cutout to prevent chipping. Fasteners or clips should be used along with silicone.
- All sinks must be sealed to the countertop using 100 percent silicone.
- Always follow the sink manufacturer's recommendations. Some sinks may require support systems like cradles, rail systems and sink setters.



INSTALLATION OF BACKSPLASH MATERIALS:

- A backsplash is typically 3" in height unless a full backsplash is desired. The backsplash should always be cut from the same lot or batch as the countertop material.
- Cut all backsplash material to the sizes required for the project. The top edge and any exposed ends should be polished. Generally, the backsplash has a flat top with a slightly beveled edge.
- Dry-fit the backsplash to make sure that all joints and edges are tight. Apply a continuous 1/8" bead of silicone to the bottom of the backsplash that will be adhered to the countertop surface. Then place dabs of 100-percent silicone every 4"-6" on the back, unpolished side of the stone and adhere it to the wall.
- Do not hard-seam backsplash to countertop.



WALL APPLICATIONS (VERTICAL):

4R Surfaces can be used for all internal cladding of walls and vertical applications. The installation of vertical panels varies from location to location. Check with your local building codes. When designing and installing vertical panels and cladding, it is necessary to take the weight of the product into account and the services of an experienced structural engineer should be sought during the designing and installation phases.

Installation Guidelines:

1. Measure for any cutouts required on the water line wall of the shower. This is the wall with the tub diverter, bathtub faucet and the shower head. Use a tape measure to determine where you need to cut holes in the 4R surfaces slab for the pipe cut-outs. Mark the slab and use the diamond core bit to cut out the necessary holes. Allow a ½" clearance around all pipe cutouts.
2. Install the front and back slabs first before you install the side pieces. Apply a setting epoxy adhesive to the back of the slab that you are adhering to the wall. Use a ¼" notched trowel to spread the setting epoxy onto the back of the slab. This may require more than one person for the heavier/larger slabs. Maneuver the slab into position. Place it firmly against the following substrates, Cement board, Waterproofed plywood or existing Backer board on the walls. (If using existing backer board make sure it is free of any defects).
3. Apply firm pressure and move the slab up and down and side to side as much as you can to force the epoxy glue to completely bond with the wall/substrate behind and the slab itself. Once finished, allow the slab to come to its final resting place on top of the shower pan. Provide a minimum of 1/8" expansion joint (to be caulked with 100% silicone) at the bottom/top of the slabs, which would be the shower pan and ceiling. Use 1/8" shims at the top and bottom of slabs to get the proper spacing for expansion joints. Repeat the process with all other wall panels that are needed to finish the wall surround.
4. Epoxy or "hard" seams are not recommended for vertical wall applications. All corners should be caulked with 100% silicone caulk. Allow 1/8" minimum expansion joint between adjacent 4R Surfaces slabs. Use 1/8" shims between the adjacent slabs to get the proper spacing for expansion joints.
5. Apply the proper braces to support the wall panel until setting epoxy adhesive is completely cured. Keep the braces in place for at least 24 hours or according to the drying time on your setting epoxy adhesive.
6. Remove the braces. Apply silicone caulking to the inside corners and fill the gaps between the slabs. Also, silicone the area where the slabs meet the shower pan and ceiling. Allow the caulking to dry for 72 hours before using the shower.

PROPER CLEANING & MAINTENANCE OF 4R SURFACES:

4R Surfaces requires very little maintenance to keep the surface looking its best. It is a non-porous material, therefore cleaning with a damp cloth and warm clear water is all that is required.

DAILY CLEANING

For routine cleaning, simply wipe down your surface with a damp cloth or paper towel and a pH neutral cleaner for natural stone.

The pH activity level is what determines the best maintenance cleaner for 4R Surfaces. For example, most neutral cleaners have a pH balance of 7; however, some neutral cleaners are stronger than others because they have higher pH activity levels. Some neutral cleaners are not active enough to thoroughly clean the 4R Surfaces, while some neutral cleaners are too active for it.

To keep your worktop beautiful, spot free and shiny you can use a wide selection of available cleaners and their respective pH levels, since NEOS resists ranges between pH1 and pH13, making it the only protectant resistant to a broad list of chemicals and safe from acid corrosion.

Granite cleaners that are available at Lowe's, Home Depot or local grocery stores are typically pH neutral and can safely be used to clean 4R Surfaces. Make sure about its pH before using it.



PERIODIC CLEANING

It is recommended that 4R Surfaces subject to heavy traffic of use be treated (once in a month besides daily cleaning) with a heavy duty intensive and neutral cleanser, which is stronger than a daily cleaning product. Such type of a periodic cleaning will provide a mirror gloss effect.

In the use of industrial cleaning machines, make sure that soft pads are used on the machines while strictly avoiding wax strippers. Customers that use industrial-cleaning machines should always use appropriate types of pad and brush. For the dense dirtiness to resolve, professional cleaning products are applied by using a cleaning machine with plastic brush or soft pad. Following the application of the cleanser, rinse the surface thoroughly with water.

- Installers and fabricators should avoid using acetone on 4R Surfaces as it will leave a film on the countertop surface. We recommend using denatured alcohol if needed. Acetone is harmful to resins and should never be used as a cleaner.
- Soap and water can also be used, but the surfactants in some soaps will leave a greasy film on the surface. The film can feel sticky and is very difficult to remove.
- Bar Keepers Friend and soft scrub without bleach can be used to remove any film or haze created by surfactants/acetone that may be on the material's surface.
- 4R Surfaces is heat and scratch resistant, but not heat- and scratch-proof. Never put hot pots directly on the countertop surface; always use hot pads or trivets.
- 4R Surfaces does not require any waxes or sealants because it is a non-porous surface. It retains its lustrous gloss and smooth surface without the need for polish or sealant.
- Do not use bleach or any cleaners that contain bleach.
- Granite cleaners that are available at Lowe's, Home Depot or local grocery stores are typically pH neutral and can safely be used to clean 4R Surfaces.

CERTIFICATIONS:

4R Surfaces is internationally certified to ensure maximum safety and protection. Such certificates offer consumers the assurance that 4R surfaces is a safe, top-quality material. Our certificates offer a 100% guarantee.



NSF

With the NSF certificate, 4R Surfaces is deemed to be a safe material for direct contact with all types of food. This certificate is endorsed by esteemed organizations such as the FDA (Food & Drug Administration) and WHO (World Health Organization)

GREENGUARD

This certificate proves that 4R Surfaces does not generate any substance that is harmful to the environment. It also certifies the use of our surfaces in closed areas.

GREENGUARD GOLD

4R Surfaces has also been awarded the "Greenguard Children & Schools Certificate," which confirms maximum safety in its applications for schools and universities.

4R Surfaces products have stringent quality standards and quality controls to offer an excellent product. 4R Surfaces offers unique marble effect designs with the best high-quality performance.

TERMS AND CONDITIONS:

This warranty applies only to 4R Surfaces products in interior residential or commercial applications.

Validity of the warranty:

25-year Limited Warranty. 4R Surfaces guarantees that our material will be free from manufacturing defects during the indicated period.

Thanks to its beyond-belief technology NEOS, Nano Enhancement of Surfaces, an innovative high-performance stain and substance repellent technology developed for 4R Surfaces, we are the only brand to include a **Lifetime Stain Warranty**.

4R Surfaces guarantees that your countertop will resist staining and will be protected from a broad range of chemicals and acid corrosion (between pH1 and pH13).

To activate this policy, it is compulsory to register the product here <https://4rsurfaces.com/warranty-activation/>, a maximum of 6 months after the purchase. The original receipt could be required anytime by 4R Surfaces. In the case of acquisition of a new property, 4R Surfaces honors the real estate purchase contract as the original receipt. You are responsible for entering the correct details in the registration form. Those are: contact details, where 4R Surfaces is installed and product information. In case any information is not correct, your 4R Surfaces product may not be properly covered.

This warranty is assigned to the natural person that registers his/her personal information according to the instructions given in the registration form, and is non-transferable.

In order to obtain assistance during the validity of the warranty, you must contact the commercial establishment where the product was purchased or alternatively, you may contact 4R Surfaces directly.

In order to assess any product claim, the policyholder agrees to allow any professional authorized by 4R Surfaces to enter wherever the product is installed to examine the product and take pictures of the material and installation.

The purchaser and/or the fabricator/installer are responsible to inspect each slab for color, pattern and defects. Material with visible manufacturing defects must not be used. Samples are small select cuts from a slab; they do not exhibit all the characteristics of a design and therefore are not fully representative of what will be installed.

The warranty covers only manufacturing defects found to adversely affect the installation of 4R Surfaces in residential applications. 4R Surfaces has the right to repair or replace any material it deems defective, at its sole discretion.

This warranty is only applicable to the product that has been used and maintained by following the care and maintenance recommendations, as prescribed herein by 4R Surfaces.

This warranty is only applicable to 4R Surfaces that have been permanently installed indoors and have not been moved from the original installation.

4R Surfaces is not a seamless product; seams are visible. Where there are seams, the product pattern and shade can change.

EXCLUSIONS:

1. Those products that have not been completely paid are excluded from the warranty.
2. This warranty does not cover products installed outdoors.
3. In cases where 4R Surfaces opts in its sole discretion to provide replacement material to satisfy valid warranty claims, 4R Surfaces will not be responsible for the costs of transporting material to the destination.
4. Because 4R Surfaces does not have control over, including but not limited to, handling, templating, fabrication, manipulation, cutting, polishing or installation, any incidental and consequential damage arising from these activities are not covered. These items are understood and agreed to be the responsibility of the independent fabricator/installer involved in each project. 4R Surfaces highly recommends to carefully read the Architects & Designers Manual and/or the Fabrication & Installation Guide before manipulating 4R Surfaces products.
5. This warranty does not cover any fabrication or installation cost, nor the incidental costs incurred by other trades, including but not limited to plaster work, plumbing, electrical or structural work, etc.
6. This warranty does not cover installed products with manufacturing defects that were, or should have been, known or visible to installers at the time of installation, including, without any limitation, possible differences of color or tone. 4R Surfaces is made with pure natural materials. Variation in the natural stone color pattern, size, shape and shade are inherent and unique characteristics to be expected with this product.

7. This warranty does not cover any incorrect use. Damage caused by exposure, in use or otherwise, to abrasive or strong alkaline or acid or free radicals or oxidizers or the like (whether high, neutral or low pH) products is not covered, neither damages caused by exposure to excessive heat, weather or ultraviolet light or by inappropriate Care & Maintenance.
8. This warranty does not cover stains caused by exposure, in use or otherwise, to substances over pH13.
9. Use of the product in floors or other areas intended for the transit of persons or machinery is expressly excluded.
10. Use of the product in fireplaces or similar is expressly excluded.

No other entity but 4R Surfaces is authorized to offer any warranty agreement related to 4R Surfaces products.

This document has been updated August 2023. It prevails over any other 4R Surfaces previous warranty document and it shall come into effect on the date of its publication.