



LUMINA STONE
THE NEW QUARTZ ERA

ARCHITECTS & DESIGNERS
PRODUCT MANUAL





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BRIGHT, FRESH AND ELEGANT

The Enlightenment is the philosophical, political, literary and scientific movement that developed in Europe and its colonies throughout the eighteenth century, giving rise to the Century of Lights. It represented an important cultural modernization as a result of the progress and diffusion of the new Ideas and new scientific knowledge, which led to the attempt to transform the outmoded structures of the Old Regime.

LUMINA is the Latin word to describe the LIGHT, origin of knowledge and of great historical movements.

LUMINA STONE was born with the intention of illuminating the decoration sector with unique and surprising proposals through its founder, Sergi Vendrells, a well-known Spanish designer and entrepreneur with extensive international experience in the field of design and fashion who now transports us, through his new creations, to the world of lights, to the world of LUMINA STONE.

It's not easy to circumscribe the Lumina universe within a definition.

A world made up of sensations, traditions, culture and a Mediterranean nature.

Sergi Vendrells has made a trademark of his name which is known throughout Europe, easily recognizable thanks to its glamour and great versatility.

One Designer who has known how to make a flag out of his Spanish character.



ADVANTAGES

Quartz is one of the nature's hardest minerals. Our surfaces are composed of up to 93% quartz, and are therefore designed to last.

In an unique LUMINA STONE process, we take the innate strength of quartz and combine it with numerous polymers and dashes of pigments. The result : A range durable and beautiful quartz surfaces in a wide variety of colors and finishes.



EVERLASTING SHEEN

Like natural stone patterns, our veins show a unique translucent transparency that will make you believe they are real. The incredible shifting of shades and movement inside our patterns make them so unique that they are rivaled only by natural stone.

SHOCK RESISTANT

Lumina Stone produces a notably enhanced surface, suitable for any application, and with much better durability than any other material you have worked with.

100% ENGINEERED STONE

Any application is possible, not only with the look of a high-end natural stone, but with a reliably consistent appearance and price, for any quantity needed. Perfect for projects large or small.

LIQUID REPELENT

Lumina Stone is protected by NEOS, Nano Enhancement of Surfaces, an extraordinary innovative high-performance stain and substance repellent technology. Available for all colors, polished and silk.

STAIN RESISTANT

Lumina Stone resists staining, and crucially, repels a broad range of chemicals, from pH1 to pH13, becoming in the most durable product in the sector, secured from acid corrosion.

EASY TO CLEAN

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

EASY TO CUT AND MANUFACTURE

Our material is very easy to cut and manufacture, and what's more important, you can use the entire slab with no waste.

LUMINA STONE: PRODUCT DESCRIPTION

PRODUCT DESCRIPTION

Lumina Stone grew from our strong desire to present the world with the most natural, believable marble designs. The result? A peerless quartz with high definition character movement and sharp, clean, tight lines, which in previous generation quartz often appear blurry or washed out. **Having perfected the white marble quartz through Phi Technology, we have created a new product generation: QUARTZ 2.0.**

We produce slabs of quartz 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, Lumina Stone's translucency is unmatched. And Lumina Stone's unparalleled depth is evident through soft and subtle undertones of color beneath the surface.

The integral solidity and strength of Lumina Stone's quartz surfaces provide designers and architects with the widest possible choice of profile options, equaling those available in natural stone products. This freedom allows you to explore creative concepts and endless practical applications.

Precision and efficiency defines our material. Whether for private quarters, work areas or public spaces, Lumina Stone's quartz represents a solid asset that ensures value for money and return on investment for years to come.



TECHNICAL SPECIFICATIONS

TEST ITEM	TEST METHODS	TEST RESULTS	
APPARENT DENSITY	EN 14617-1:2013	2.34 g/cm ³	
WATER ABSORPTION	EN 14617-1:2013	0.01%	
MOH'S HARDNESS	EN 101	7	
FLEXURAL STRENGTH	EN 14617-2:2016	42.2MPa	
SLIP RESISTANCE (POLISHED)	EN 14231:2003	SRV "dry": 62 SRV "wet": 17	
ABRASION RESISTANCE	EN 14617-4:2012	23.0 mm	
THERMAL SHOCK RESISTANCE	EN 14617-6:2012	Mass loss: 0.03% Appearance: No visible defects Flexural strength after thermal shock: 44.2MPa Flexural strength Loss: -4.7%	
IMPACT RESISTANCE	EN 14617-9:2005	11.22J	
LINEAR THERMAL EXPANSION COEFFICIENT	EN 14617-11:2005	23.5x10 ⁻⁶ /°C	
DIMENSIONAL STABILITY	EN 14617-12:2012	Class: A	
FROST AND THAW RESISTANCE	EN 14617-5:2012	Flexural strength after freeze and thaw resistant: 44.1MPa The change in flexural strength: 104.5%	
BREAKING LOAD AT DOWEL HOLE	EN 14617-8:2007	5660 N	
SURFACE RESISTIVITY	EN 14617-13:2015	1.56x10 ¹² Ω/sq	
VOLUME RESISTIVITY	EN 14617-13:2015	3.42x10 ¹³ Ω-cm	
THERMAL CONDUCTIVITY	EN 15285:2008 Section 4.2.10 & EN 12664:2001 Heat flow meter method	0.746W(m-K)	
CHEMICAL RESISTANCE	EN 14617-10:2012	Rating: C ₄	
RESISTANCE TO CHEMICALS AND STAINING AGENTS	EN 14688, CLAUSE 5.5	STAINING AGENT	CLEANING TEST
		CH ₃ COOH (10% V/V)	REMOVAL
		NaOH (5% m/m)	REMOVAL
		C ₂ H ₅ OH (70% V/V)	REMOVAL
		NaOCl (5%)	REMOVAL
		METHYLENE BLUE (1% m/m) NaCl (170 G/L)	REMOVAL REMOVAL
RELEASE OF DANGER SUBSTANCES (REACH)	SGS In-House method-GZTC CHEM-TOP-092-01, GZTC CHEM-TOP-092-02, Analyzed by ICP-OES, UV-VIS, GC-MS, HPLC-DAD/MS and Colorimetric Method	Pass	

LUMINA STONE: PRODUCT DESCRIPTION

RESTRICTIONS

Lumina Stone is intended for interior use exclusively. Avoiding exposure to the following situations is highly recommended:

1. Excessive heat. Lumina Stone is strong and heat resistant; however one should avoid stressing the material with sudden thermal shock. Also, chronic or acute exposure to high heat can scorch the resin binders. Never set hot pans directly on the surface and always use hot pads or trivets to protect your counters.

2. Chemicals. Any product containing trichloroethane, methylene chloride, abrasives, pH levels greater than 8 or less than 5, hydrofluoric acid, liquid bluing, gentian violet or aggressive cleaning compounds must be avoided.

3. Acids. Common acids such as hydrochloric, muriatic or sulfuric do not affect Lumina Stone surfaces. In concentrated solutions, and after being exposed 24hrs, some acids including nitric acid will discolor the material, although they will not compromise its strength. Hydrofluoric acid spills should be removed immediately to avoid any reaction in the countertop. In case of accidental exposure to these substances, wash meticulously with clean water as soon as possible.

4. Bases: Sodium hydroxide and potassium hydroxide in concentrations of 10% or higher will mark the material; therefore, any accidental spill any accidental spill must be cleaned up immediately. Household cleaning products containing sodium and potassium hydroxide in typical concentrations do not damage Lumina Stone surfaces.

5. Solvents. Most solvents are not harmful. Household cleaners and industrial strength solutions of methyl ethyl ketone (MEK) have shown any effect on Lumina Stone. Solvents that can be safely used in pure concentration only in Lumina Stone include: acetone, mineral spirit, methylene chloride, lacquer thinner, isopropyl alcohol, trichloroethane.

6. Staining agents. Lumina Stone material is impervious to common laboratory staining agents. It is not permanently stained by povidone-iodine (betadine), potassium permanganate or tincture of iodine. Residual stains of betadine or iodine on light-colored Lumina Stone cleans off with chlorine bleach. Darker colors show no stain from these agents. However, some colors can be stained by prolonged contact with solutions of gentian violet, blue ink and some lipsticks.



PRODUCT PROCEDURE

Manufacturing: 97% of the water used during manufacturing is reclaimed using filtration and recycling systems. Regenerative thermal oxidizers remove particulate matter from the atmosphere, reducing air pollution and ensuring a safer work environment.

Regional fabrication: surfaces can be produced by fabricators located close to the building site.

Product lifespan: Lumina Stone is a very durable material. A 15-year warranty is available.

Recommended cleaning and maintenance: Lumina Stone is a very low maintenance material. Unlike natural stone, it does not need periodic resealing for stain resistance, and its good looks can be maintained without the use of harsh cleaning chemicals. This improves indoor air quality and eliminates the environmental impact of sealers and cleaning chemicals.

Product reuse: The high strength of Lumina Stone can make it possible to remove surfaces without excessive breakage. The durability of the material therefore permits it to be reused in another location.

LUMINA STONE: SLAB INFORMATION

SIZE

The slab dimensions of Lumina Stone's quartz surfaces are: **JUMBO SLAB:** 3200x1600mm or **ORIGINAL SLAB:** 3000x1400mm. These options give fabricators the flexibility to maximize their utilization of the material.

JUMBO SLABS

1600mm



ORIGINAL SLABS

1400mm



THICKNESSES

The slabs are available in two thicknesses: 12mm, 20mm and 30mm, to make possible a multitude of applications.



All colors are available in all sizes and thicknesses.

LUMINA STONE: SLAB INFORMATION

LUMINA STONE SLAB LABELS

Standard Lumina Stone Label on Front of Slabs.

Each slabs 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

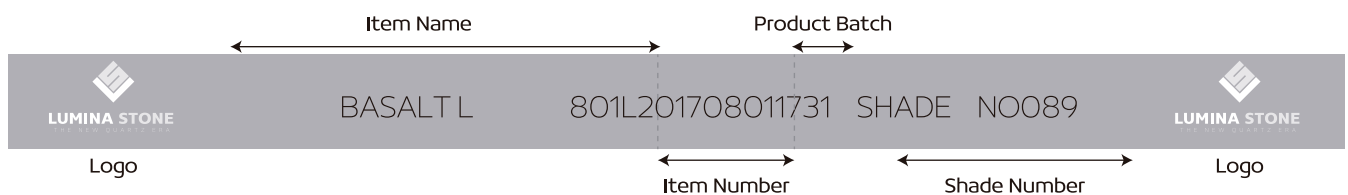
For example:

BASALT L 801L201708011731 SHADE0089 are on both stickers and they must be the same.

BASALT L 801L201708011731 SHADE0089



Standard Lumina Stone Label on the Back of Slabs



PRE-FABRICATION:

Any failure by a Fabricator to comply with the recommended methods of manipulating the product may result in refusal of an end user claim. **In order to protect your own interests, Lumina Stone requires that you carefully read and follow these pre-fabrication, fabrication and installation instructions.**

Please direct any questions about the recommendations in this manual to your local Lumina Stone official distributor.

Before manipulating any Lumina Stone material, you must perform a visual inspection for defects and ensure any necessary color matching. As you would before cutting any material, we recommend you complete the following steps to help guide your inspection:



- 1.- Do not inspect slabs with the protective film on.
- 2.- Inspect both the front and the back of slabs for any defects.
- 3.- Look for any hairline cracks in the slab.
- 4.- All slabs should be checked for accurate color matching before fabrication, whether the layout calls for them to be seamed or unseamed.
- 5.- When book matching patterns, make sure that the main veins match/line up 70 percent or more. Similarly, make sure that the third pair of veins match/line up 50 percent or more. When book matching veins, make sure veins have a similar direction and a similar shape.
- 6.- Check slabs for correct dimensions, warpage, irregular spots, or other defects that make the slab unacceptable for fabrication.
- 7.- Check for accurate color matching of all Lumina Stone colors, and the orientation/layout of pattern flow.
- 8.- Once the fabricator has deemed a slab to be acceptable for fabrication and the slab is cut or machined in anyway, the slab cannot be exchanged. The fabricator is responsible for determining if the slabs are fit for fabrication. If they are not, they should be exchanged with their supplier. Lumina Stone will not accept claims for any of the above once the slab is modified or fabricated in any way.

Please note: Lumina Stone will not accept any claims for any of the above if the slab is modified or fabricated in any way. You are responsible for determining if the slabs are fit for fabrication. If they are not, they should be exchanged with your supplier.



VEINING/COLOR-MATCH

Always inspect all material before fabrication. **Lumina Stone 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. Lumina Stone 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 quartz 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 Lumina Stone 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.

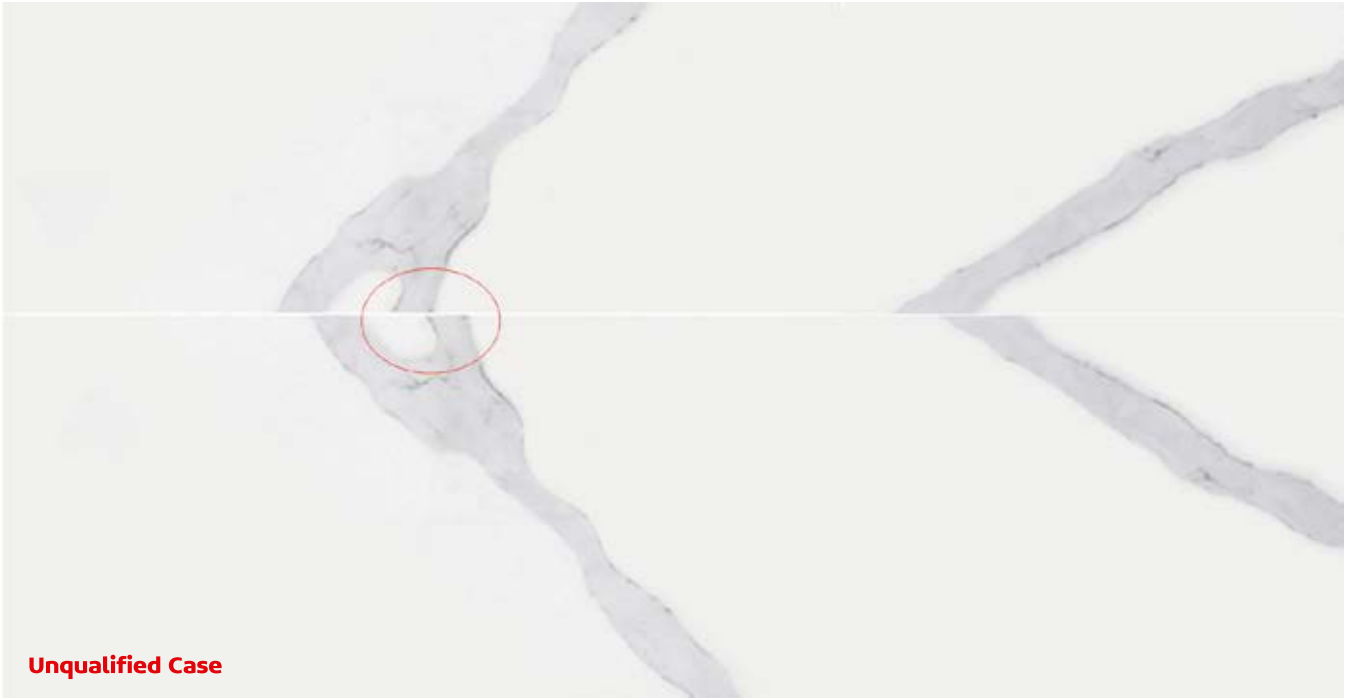
Layout is one of the most important processes in fabricating Lumina Stone and vital to ensuring the best end result. Because Lumina Stone closely replicates the look of natural marble, it requires a little additional attention in this process to maximize the homeowner's lasting enjoyment.

LUMINA STONE: PRE-FABRICATION

LUMINA STONE BOOK MATCH STANDARD

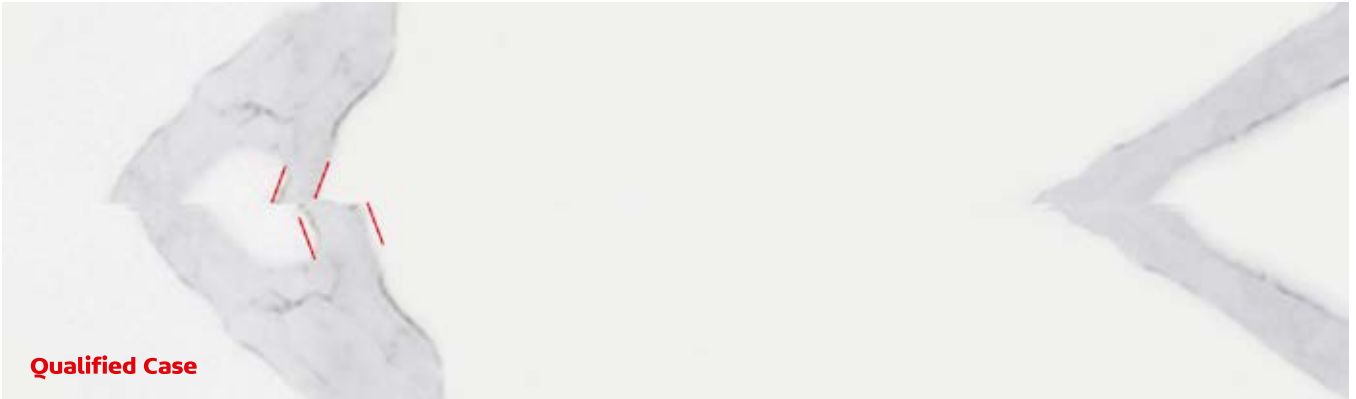
Examples of Qualified Book Matches for Lumina Stone:

When book matching: Make sure that the main veins match/line up 70 percent or more, and that the third pair of veins match/line up 50 percent or more. Keep in mind: The book match will not be 100 percent perfect as some variation in main vein pattern is normal.



LUMINA STONE: PRE-FABRICATION

when book matched, 2 pairs of main veins connect area >70%, one pair main veins have different shape (mainly different width)



When book matched, the veins have both a similar direction and a similar shape.



When book matched, the two slabs have the same shade of veins. We allow some of the veins to have the black lines inside the veins.



SUPPORT REQUIREMENTS

Structures with support on four (4) sides. Structures supported on four sides do not require any additional support for either 2 cm or 3 cm 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 which are supported on three sides require additional support. Guidelines for 2 cm and 3 cm material are as follows:

- 2 cm & 3 cm materials with countertop depths greater than 26" need support every 24".
- 2 cm material with countertop depth less than 26" needs support every 24".
- 3 cm material with countertop depth less than 26" needs support every 36".

Some suggested support materials for cabinets that need additional support for Lumina Stone Quartz: plywood, wood, MDF board, structural steel.

All non-moisture resistant materials or products are not acceptable for use as support material. (OSB, Particle Board, etc.)

All of the above information should be taken into consideration by the fabricator during the templating and layout/measuring procedure. This will help avoid problems during the fabrication and installation process. Not following the procedures in this fabrication guide will void any warranty given by Lumina Stone.



OVERHANG / CANTILEVER

- Overhangs cannot exceed 1/3 of the countertop depth and must have a minimum length of 24".
- Material that is 2 cm requires support every 24".
- Material that is 3 cm requires support every 36".
- Overhang ratios require that two-thirds of the width/length of the material be supported; one-third of the width/length of the material can be unsupported (an overhang).
- No cutouts or cored holes are permitted on any overhangs.
- Additional support (i.e. support bars or 3/4" 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	No Support Needed	Corbels Required	Columns Required
2 cm material	≤ 8"	> 8"	> 18"
3 cm material	≤ 12"	> 12"	> 24"

- Corbels should always be mounted to a stud for proper support of the material.

RECOMMENDED SUPPORT MATERIAL FOR CABINETS:

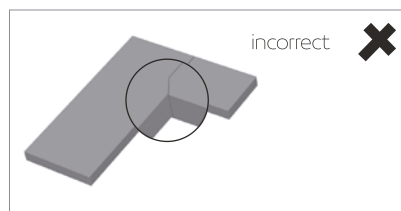
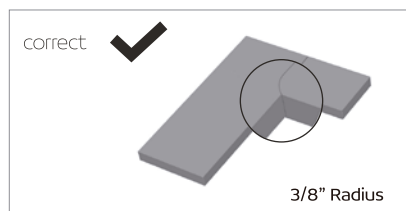
- Plywood, wood, medium density fiberboard and structural steel are the recommended support materials for cabinets that need additional support for Lumina Stone.
- Materials or products that are not moisture resistant, like oriented strand board and particle board, are not acceptable as support material.

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 Lumina Stone Inc

SEAM LOCATION

During the layout process determine all your seam locations. This is very important for the esthetics of the material and kitchen. There are several locations for seams that should be avoided.

- Seams through the center of the sink cutout.
- Seams should not be placed where there is direct sunlight.
- Seams should never be above an under-counter dishwasher.



TEMPLATING

It is very important to capture all information necessary to accurately fabricate all portions of the job, including sink and appliance centerlines, faucet hole locations, finished edges, overhangs, etc. It is also highly recommended that all appliances, sinks, cooktops or other items that require a cutout of the countertop, be on site when the fabricator is templating the job.

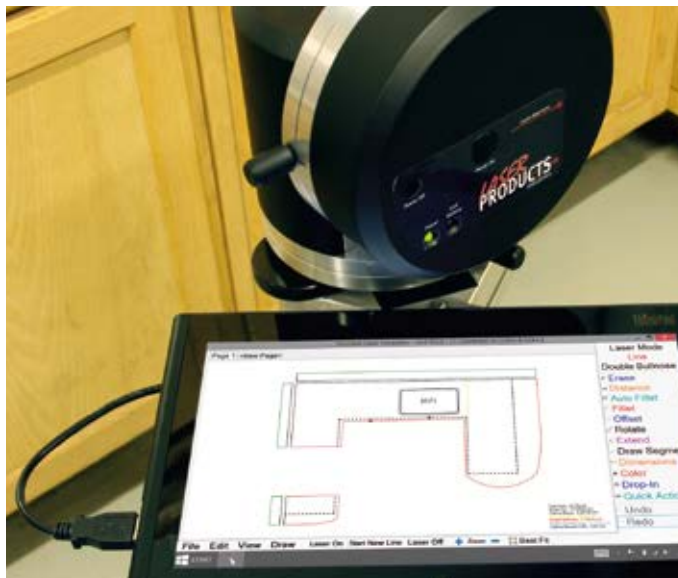
It is highly recommended that all appliances, cook-tops, sinks, or any item that penetrates the countertop be on site when the job is templated.

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 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 contain 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 other item that requires a cutout on the countertop be on site when the job is templated.



LUMINA STONE: PRE-FABRICATION

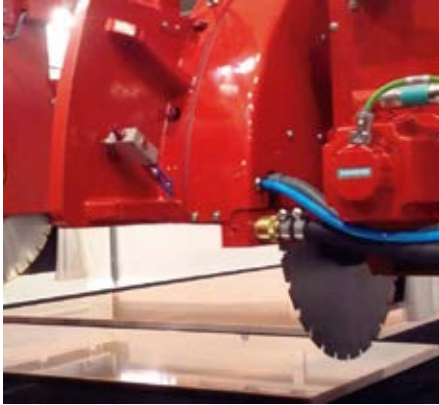
INFORMATION TO GATHER FROM HOMEOWNER:

- Choice of 2 cm or 3 cm material
- Name of Lumina 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 (if using one piece of material for countertop, then use a 3/8-inch core bit for corners as internal corners must have a 3/8" radius at minimum; if using two pieces of material, use a square, two-piece seam)

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; there should also be extra structural support around the dishwasher.

FABRICATION



CUTTING

Before cutting any slabs of Lumina Stone, calculate the square footage, length, and width of material needed to finish the project. This is very important when using Lumina Stone, because each batch and slab are unique and have specific shades that need to be matched for each job. If your measurements come up short, it may create color match concerns if more material must be ordered. Thoroughly inspect each slab for color, pattern, and defects. Do not use material with visible manufacturing defects unless the layout/job allows you to work around them.

- 1.- When cutting Lumina Stone Quartz, no matter what equipment you are using, the workpiece and tooling should always be kept cool with sufficient water for your diamond tooling and waterjets. Always avoid excessive heat with all diamond cutting tools.
- 2.-The very first cut made on every Lumina Stone slab should be along the longest edge of the slab. Then you may proceed to cut along the shortest edge.
- 3.-When using a bridge saw, you should never plunge cut.
- 4.-It is important that you never cut square corners when fabricating Lumina Stone. This can create stress points in the countertop that is being fabricated, which can result in cracking.
- 5.-Always use diamond core bits for all corners or radius cutting.
- 6.-Corners that are fabricated on a single slab must have a minimum of a 1/4" radius.
- 7.-Cross cutting should never be used when fabricating Lumina Stone countertops. Always use a diamond core bit to create your radius. This should always be used on inside corners, so any internally-angled corner must have a radius. Never cross cut.
- 8.-Keep in mind that quartz slabs have a percentage of resin in each slab, which can allow some warping or bowing to occur, depending on storage practices and/or weather conditions. If this occurs, you should use the 'double-pass' cutting technique. First you make a cut half the length of your intended cut, and stop. This will relieve the tension, and the slab will flatten out. Then proceed with a second cutting pass to finish the cut.

CUTOUTS

Cutouts can be completed with several different types of equipment. A bridge saw can be used for straight cuts but all radius work needs to be cored with diamond core bits, and without any cross cutting. CNC machines are also very popular, and should be used following the same guidelines given for bridge saw use. Waterjets can be another alternative, with the proper abrasives and water pressures.

Please keep these considerations in mind:

1.- 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 this rule: 'The larger the radius, the stronger the corner.'

2.- If the distance between the cutout and the seam is less than 6", the seam needs to be supported. During the layout process this can be achieved by ensuring all seams are over cross members of the cabinets below. Alternatively, cross members need to be added.

3.- Internal cutouts on all corners should have a 1/4" radius at minimum.

4.- 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.

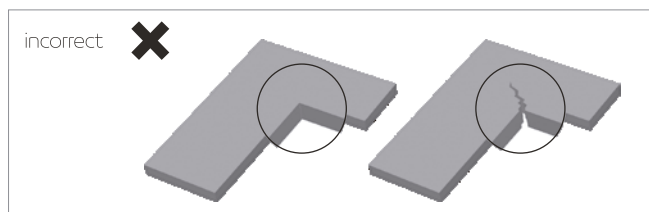
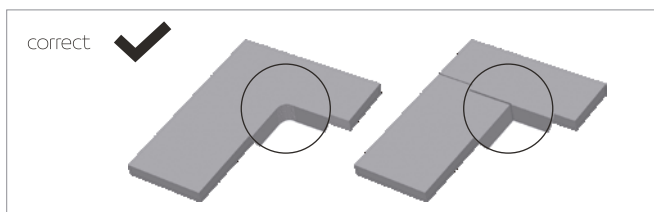
5.- Faucets, soap dispensers and other cutouts range from simple core holes to complex cutouts for specialized equipment. Always have all equipment which requires cutouts on the jobsite during the installation process. This is the safest and best way to determine the shape or size of the core or cutout.

6.- Always use the manufacturers' recommendations when available.

7.- The customer should sign off and make the final decision regarding the location and the size of every cutout in their countertop.

8.- Additional support should be added to both ends of each cutout if the base cabinet cross bars are not within 3" of cutout.

9.- All cutouts for heat-producing equipment (cooktops, etc.) should have a 9-mil aluminum foil tape to minimize the transfer of heat to Lumina Stone Quartz. Always follow manufacturers' guidelines.



LAMINATION

A 'laminated edge' is created by gluing pieces of slab material together to create a variety of edge profiles including mitered edges, stacked edges, and drop edges. The lamination process is also used to create more sophisticated edge profiles.

Stacked Edges

An additional 1.5" wide strip of material is cut from the same slab during fabrication. The piece is glued to the underside of the countertop along the front edge to create a thicker edge. Example: If you are using 2 cm material it will create a 4 cm or 1.5" thick edge. If a plywood substrate is required underneath your 2 cm countertop for support, the laminated stacked edge also serves to hide the plywood from sight. This process can also be done with 3 cm material.

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.

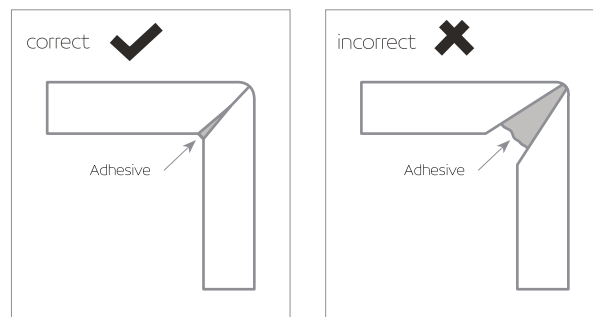
1. A 45-degree corner joint is recommended to minimize the stress on the corners.
2. Use full-length lamination pieces if possible.
3. On long countertop runs where a joint may be required, make sure that the joint in the laminated piece is at 45 degrees to minimize stress points.
4. Proper clamping is recommended every 3-4" for a secure, tight bond.

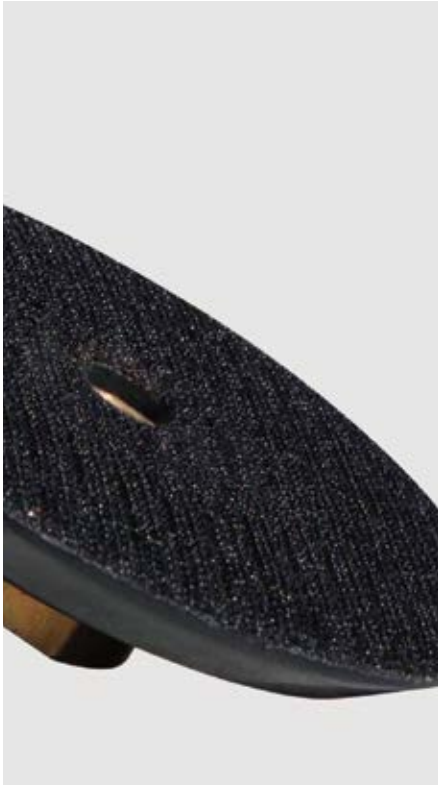
Mitered Edge

A mitered edge is made up with a perfect 90-degree angle, by joining two separate pieces of Lumina Stone Quartz, each cut at a 45-degree angle. Gluing them together will create a perfect 90-degree angle piece of quartz. Generally, it's done with 2cm material. Also, the longer the apron, the harder it is to hide your seams because it's more difficult to clamp. It is never recommended to have a mitered edge over 4 inches unless a special support is added.

Adhesives:

We recommend that a cartridge-style acrylic or epoxy that is already color matched for Lumina Stone quartz be used. Lumina Stone quartz 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

One of the most important aspects is selecting the right polishing pads for Lumina Stone Quartz. There are a lot of different brands in the market, but it is important not to select polishing pads that have colored resin. These pads can be great for granite and are able to reach a quality polish but require an excessive amount of water and time; and can transfer the resin's color to the edges of the Lumina Stone Quartz. **Lumina Stone recommends using white resin pads only in all applications, whether hand polishing, or using an automatic edge polisher or CNC machine.**

Rigid Backer Pads:

Flexible backers work well for concave profile edges, such as ogee edges; there is no need to use a flexible backer on most other profiles. Keep in mind that all automatic edge machines use extremely rigid polishing tools and backer pads; these machines will produce a far better edge than what many fabricators can do by hand.

Polishing Pads:

Common problems include both using too much water and not enough water, and not using the proper polishing technique.

- 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 Lumina Stone quartz, 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 Lumina Stone quartz. 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 Lumina Stone quartz is to use a grit level of 3000.
- Dry polishing the edge profile may cause overheating of Lumina Stone quartz. 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 Lumina Stone quartz.
- Lumina Stone quartz should never be polished on the top surface of the manufactured finish.

Polishing Tips: When polishing any edge detail on Lumina Stone quartz 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.



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 quartz.



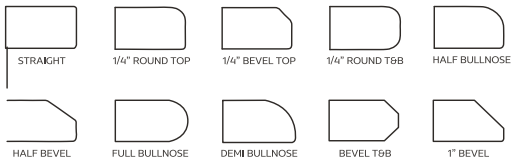
EDGE DETAIL

When profiling edges on Lumina Stone quartz, it is best to use a machine with diamond tooling to produce the desired shape. CNC machines, and other specific edge profiling machines, are recommended for producing consistent edge profiles. Some standard or basic edges can be achieved using only hand tools and diamond cup wheels. A combination of both machine and hand labor produces the best results when creating edge detail.

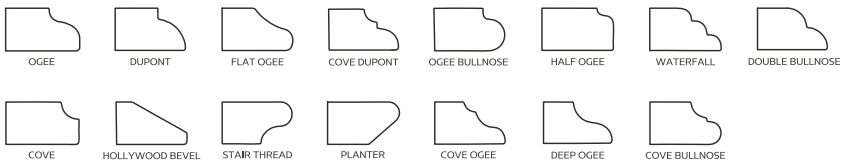
Edges: We recommend that all outer edges of the countertop be beveled, which will improve the material's resistance to chipping and also remove sharp edges and thereby prevent possible cuts. Keep in mind that the larger the bevel, the greater the resistance to impact. A hidden edge, which is typically against a wall, should have a minimum bevel of 1mm; an exposed edge should have a minimum bevel of 3mm. All cutouts, whether exposed or hidden, should follow the same rules regarding the size of the bevel.

Lumina Stone quartz edge details include a wide variety of profile edge options. Many manufacturers produce profiling wheels for both CNC machines and handheld routing machines. All profiling wheels will work Lumina Stone quartz, although some exotic edges require a thicker edge.

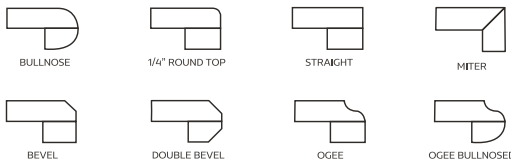
POPULAR EDGES



PREMIUM EDGES



LAMINATED EDGES



LUMINA STONE: INSTALLATION

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.

1.- After the support system is installed and leveled, installation of the Lumina Stone quartz countertops can begin. Measure cabinets and verify that the pieces will fit before placing the Lumina Stone quartz on the countertop.

2.- 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.

3.- Space should always be allowed as Lumina Stone quartz 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 countertop with silicone.

4.- 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/-contract as needed.

5.- Use extra silicone on all corners and joints, and around all cutouts.



LUMINA STONE: INSTALLATION

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.

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. Several companies produce a color-matched adhesive for Lumina Stone quartz. We recommend using a cartridge with a static mixing tube as this provides a consistent seam each time.

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.

SINKS

For all sink installations, whether they are top-mount or under-mount, we recommend that you follow the sink manufacturer's recommendations and guidelines.

- 1.- We recommend that all sink installations be fully structurally supported without reliance on the Lumina Stone quartz as a form of support.
- 2.- Under no conditions can mechanical fasteners (screws, nails, etc.) be affixed directly to Lumina Stone quartz. These items will rust with moisture and the rust will bleed through the stone.
- 3.- 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.
- 4.- All sinks must be sealed to the countertop using 100 percent silicone.
- 5.- Always follow the sink manufacturer's recommendations. Some sinks may require support systems like cradles, rail systems and sink setters.



BACKSPLASH

Considerations for 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.

Lumina Stone can be installed as a backsplash behind a gas, induction or vitroceramic cooktops. Install cooktops following the manufacturer's instruction, paying special attention to insulation requirements and materials.

The cutout requires a minimum distance of 60mm to the backsplash and 80mm to the edge.

All cooktops requires a minimum distance of 120mm from the perimeter of the nearest burner, to any vertical application to avoid heat transfer.

For L or U-shaped countertops, cooktop requires no less than 25mm to the corner.



LUMINA STONE: CARE & MAINTENANCE

CARE & MAINTENANCE:

Lumina Stone quartz 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, and mild soap if desired, is all that is required.

The pH activity level is what determines the best maintenance cleaner for Lumina Stone. 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 quartz/stone surface, while some neutral cleaners are too active for the quartz/stone.

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

The chart below provides the range of available cleaners and their respective pH levels. The cleaners that work best to clean Lumina Stone quartz should always have a pH level of 7-6 for safe, effective and streak-free cleaning.

ACTIONS TO AVOID:

If any of the substances mentioned below come into contact with your Lumina Stone quartz, rinse the exposed surface immediately and thoroughly with water.

Do not expose, in use or otherwise, Lumina Stone to abrasive or strong alkaline or acid or free radicals or oxidizers or the like (whether high, neutral or low pH) cleaners. Various chemicals are corrosive and/or erosive in their ability to attack any structure including Lumina Stone. Be very aware of these potential damages to your surface, especially paint removers or furniture strippers containing trichloroethane or methylene chloride.

Do not expose Lumina Stone to acetone 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.

Do not expose Lumina Stone to products including, but not limited to, bleach, oven cleaners, Comet®, Soft Scrub® with Bleach Cleanser, SOS®, products with pumice, batteries, paint removers, furniture strippers, tarnish or silver cleaners, or the like. Do not use abrasive or harsh scrub pads. Do not apply any sealers, penetrants or topical treatments to Lumina Stone under any circumstances. Such products will wear off and cause the gloss to appear dull or inconsistent.

ADDITIONAL CONSIDERATIONS

Lumina Stone is made with pure natural quartz. Variation in the natural stone color pattern, size, shape and shade are inherent and unique characteristics to be expected with this product. This does not affect the material performance in any manner.

Color blotches are intended and designed into many designs to enhance the natural beauty. 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. Product will not be replaced due to these variations.

Lumina Stone is durable and more resistant to surface damage than other stone. However, all stone can be damaged by force and no material is chip-proof. Objects hitting edges, particularly at sinks or dishwashers, may generate chips. Though a minor knife slip will dull the knife and not harm Lumina Stone, no stone surface is scratch proof. Surface markings are more visible on monotone designs than multi-colored surfaces.

To prevent heat damage, do not place hot skillets or roasting pans directly onto the surface. We recommend the use of trivets and hot pads.

Lumina Stone is not a seamless product; seams are visible. Where there are seams, the product pattern and shade can change.

Lumina Stone quartz 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.



CERTIFICATIONS:

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



NSF

With the NSF certificate, Lumina Stone 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 (Federal Drug Administration) and WHO (World Health Organization)



GREENGUARD

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



GREENGUARD GOLD

Lumina Stone has also been awarded the “Greenguard Children & Schools Certificate,” which confirms maximum safety in its applications for schools and universities.



CE

CE stands for Conformance Européenne, the French phrase for European Conformity. It is a standard that applies to a wide range of objects created and sold in the nation belonging to the European Union. CE certification is designed to protect EU consumers by regulating products to reduce possible dangers to people and the environment.



ORTHODOX UNION KOSHER

The Hebrew word kosher (kosher in English), means “proper or acceptable.” Kosher certification becomes an application which benefits consumers all over the world. It is a powerful certification in the areas of food production and contact. LUMINA STONE achieved this test and promise to provide safe products to our customers.

LUMINA STONE: WARRANTY

Lumina Stone products have stringent quality standards and quality controls to offer an excellent product. Improved with NEOS, Lumina Stone offers unique marble effect quartz designs with the best high-quality performance.

GUARANTEED COVERAGE

TERMS AND CONDITIONS:

This warranty applies only to Lumina Stone engineered quartz products.

Lumina Stone is exclusively suitable for interior residential applications.

Validity of the warranty:

15-year Residential Limited Warranty. Lumina Stone 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 Lumina Stone surfaces, we are the only brand to include a **Lifetime Stain Warranty**.

Lumina Stone 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, maximum 30 days after the purchase. The original receipt could be required anytime by Lumina Stone. In the case of acquisition of a new house, Lumina Stone 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 Lumina Stone is installed and product information. In case any information is not correct, your Lumina Stone product may not be properly covered.

This warranty is personal and not-transferrable to the natural person that registers his/her personal information according to the instructions given in the registration form.

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 Lumina Stone directly.

In order to assess any product claim, the policyholder agrees to allow any professional authorized by Lumina Stone 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 Lumina Stone in residential applications. Lumina Stone 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 Lumina Stone.

This warranty is only applicable to Lumina Stone surfaces that have been permanently installed indoor and have not been moved from the original installation.

Lumina Stone 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 installed products in the exterior.

3. Lumina Stone is not responsible for shipping the material to the destination, nor, in the case, for the cost of transporting any replacement material to the destination.

4. Because Lumina Stone 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. Lumina Stone highly recommends to carefully read the **Architects & Designers Manual** and/or the **Fabrication & Installation Guide** before manipulating Lumina Stone's 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 manufactured 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. Lumina Stone is made with pure natural quartz. 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 exposition, 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 an inappropriate **Care & Maintenance**.

8. This warranty does not cover stains caused by exposition, in use or otherwise, to substances over pH13.

9. Any and all installations in flooring applications, wall cladding or similar, as well as commercial uses are expressly excluded.

10. Lumina Stone is not responsible of the damage arising from causes beyond its control, including but not limited to acts of God, any and all issues associated with architectural design or structural engineering, structural movement, acts of vandalism or accidental damage.

No other entity but Lumina Stone is authorized to offer any warranty agreement related to Lumina Stone's products.

This document has been updated January 2020. It prevails over any other Lumina Stone previous warranty document and it shall come into effect on the date of its publication.



LUMINA STONE
THE NEW QUARTZ ERA

ARCHITECTS & DESIGNERS
PRODUCT MANUAL



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www.luminastone.com.au