ORACLE

BY SUPERIOR STONE

FABRICATION & INSTALLATION GUIDE

With less than 35% crystalline silica
A new vision for a better Impactin our Environment

REDUCE

Less than 35% crystalline silica

REUSE

Recycling nearly 100% of the water requiredinthe manufacturingprocess.

RESPECT

Low erenvironmental impact.
Up to 65% reduced crystalline silica when compared to traditional quartz surfacing.

ORACLE APPLICATIONS

Oralce products are in high demand due to their natural beauty as well as natural strength and durability. Oracle may be used in both horizontal and vertical applications.

Please visit oraclebysuperiorstone.com for full warranty details.

• Kitchen Countertops
• Vanity Tops
• Furniture/Table Tops
• Reception & Conference Room Tables
• Wall Cladding

ORACLE APPLICATIONS IN INTERIOR DESIGN
Oracle's qualities makes it well suited for many different uses.
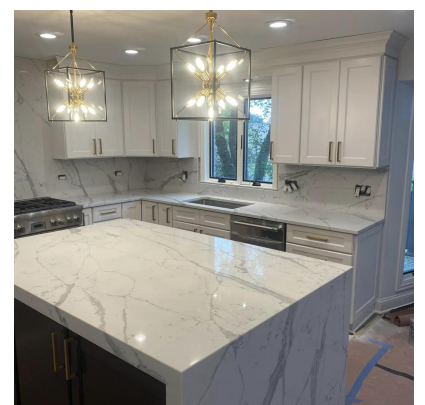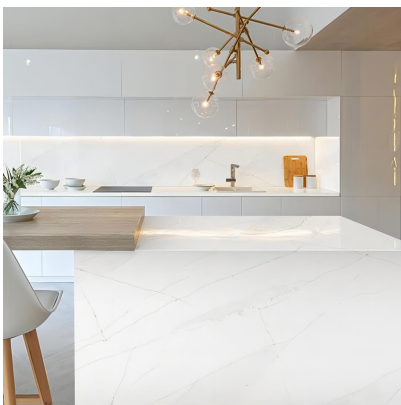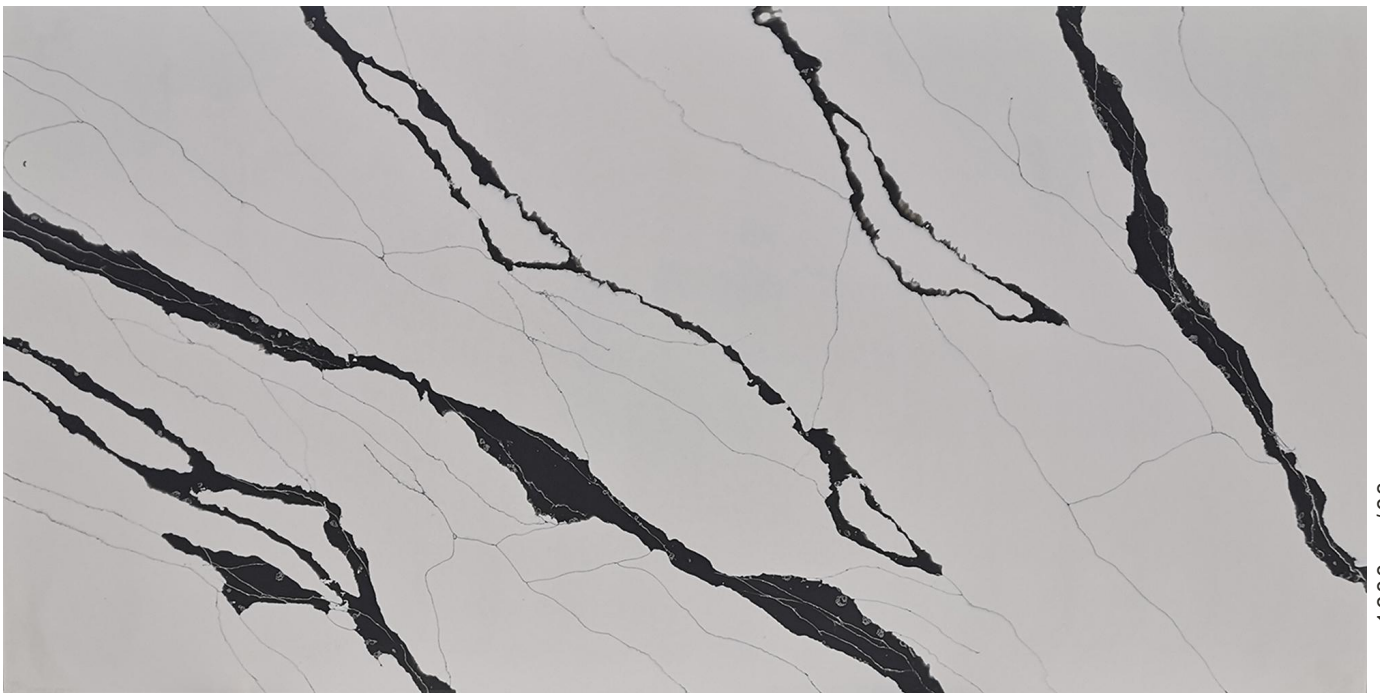
ORACLE SLAB INFORMATION

SIZE

The slab dimensions of Oracle 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 & 30mm

FINISH AVAILABLE: Polished

1600mm/63

3200mm/126"

FABRICATION GUIDE: COMPLETE INSPECTION OF PRODUCT

VISUAL INSPECTION OF SLABS:

A visual inspection for defects and color matching is essential when working with Oracle. This should be made standard practice before cutting any material.

Complete the following steps to visually inspectslabs for defects:

• Do not inspect slabs with the protective film on.

• Inspect both the front and the back of slabs for any defects.

• Look for any hairline cracks in the slab.

• All slabs should be checked for accurate color matching before fabrication, whether the layout calls for them to be seamed or unseamed.

• Check slabs for correct dimensions, warpage, irregular spots, or other defects that make the slab unacceptable for fabrication.

• Check for accurate color matching of all Oracle colors, and the orientation/layout of pattern flow.

Please note: Once the fabricator has deemed a slab to be acceptable for fabrication and the slab is cut or machined in any way, 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. Oracle *will not accept claims for any of the above once the slab is modified or fabricated in any way.*

FABRICATION GUIDE: COMPLETE INSPECTION OF PRODUCT

VISUAL INSPECTION OF SLABS:

Always inspect all material before fabrication. Oracle 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. Oracle 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 Oracle slabs to exhibitslight 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 Oracle 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 forgetto 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 Oracle and vital to ensuring the best end result. Because Oracle closely replicates the look of natural marble, it requires a little additional attention in this process to maximize the homeowner's lasting enjoyment.
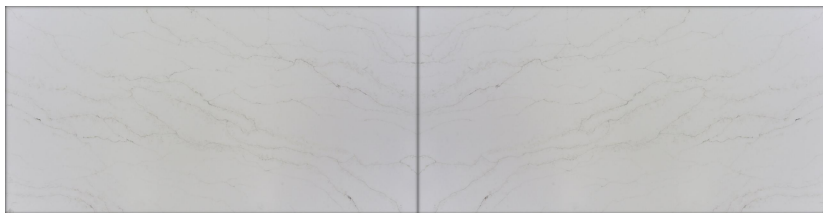
FABRICATION GUIDE: COMPLETE INSPECTION OF PRODUCT

BOOK MATCH STANDARD: 4 EDGES BOOK MATCHED
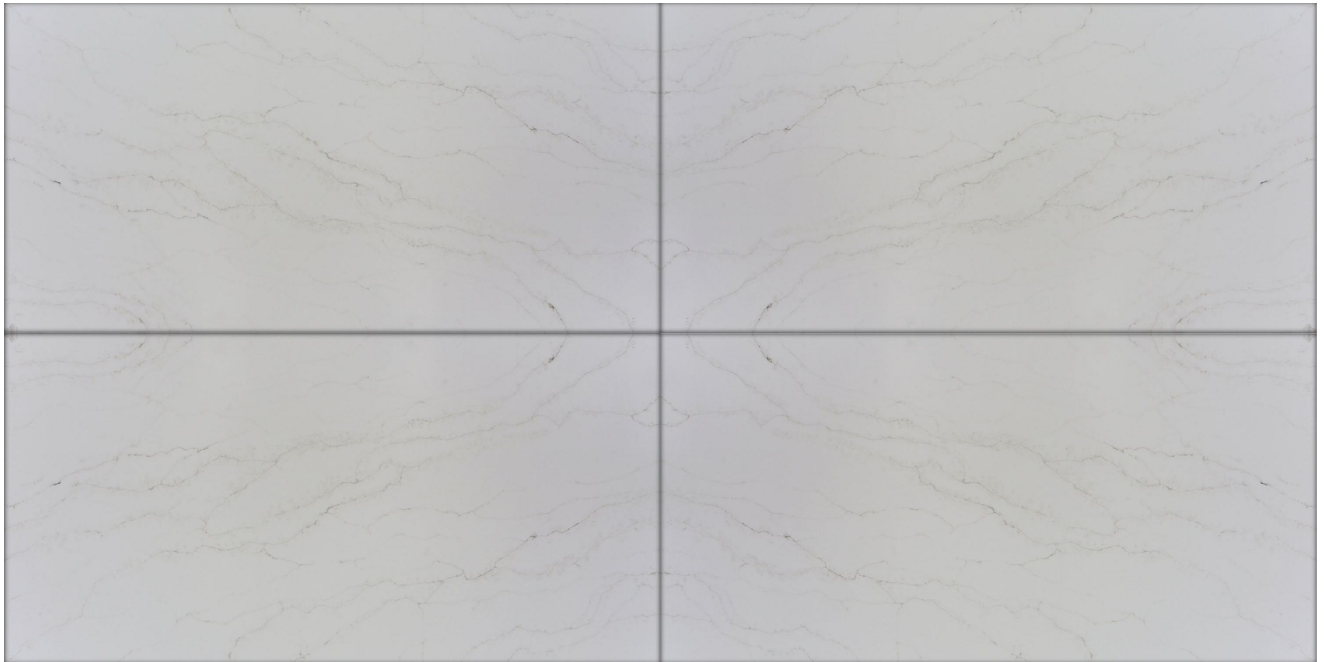
STANDARD OF BOOK MATCHING

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 ORACLE SLABS

Standard Oracle 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.

FABRICATION GUIDE: RECOMMENDATIONS FOR SLAB STORAGE IN FABRICATION SHOPS

A-FRAMES:

The best way to store Oracle slabs that are ready for fabrication or to be shipped to a job site is on an A-frame that is constructed of wood or metal. It is best that A-frame carts come with forklift receivers for loading and transportation.

• Double A-frames should have the same number of slabs on each side for proper balance and safety.

• Large double A-frame carts are usually 8' long by 43" wide with a load height of 60". The manufacturer-recommended capacity for large double A-frames is 4,400 lbs (2,200 lbs per side).

• Small double A-frame carts are usually 6'long by 43" wide with a load height of 48". The manufacturer-recommended capacity for small double A-frames is 4,400 lbs (2,200 lbs per side).

• Single-sided A-frames can also be used (these are great for box vans). The manufacturer recommended capacity for single-sided A-frames is 2,200 lbs. Make sure that material is always strapped to A-frame.

• For double A-frames: When more than one slab is stored on each side, slabs should be kept flat without any gaps to prevent warping. Make sure to strapslabs to the A-frame to prevent warping or flexing.

• Slabs should always be placed face to face and/or back to back to help prevent damage to the polished side of the slab.

• Oracle should always be safely secured to an A-frame with straps whenever transported. Never attempt to move Oracle on an A-frame if material is not banded or strapped. This applies to transportation in the fabrication shops and to transportation on trucks/-vans.

• A-frames are acceptable for temporary storage but never for long-term storage.

FABRICATION GUIDE: RECOMMENDATIONS FOR SLAB STORAGE IN FABRICATION SHOPS

VERTICAL STORAGE RACKS FOR SLABS:

Vertical storage racks are recommended when slabs require long-term storage to ensure the safety and reliability of the material. Vertical storage racks should be capacity rated, constructed of steel, and designed for Oracle slab storage.

• Slab storage rack system generally come in 5'and 10' sections with 2" by 2" uprights (poles). Rubber-tipped uprights are also recommended. Some of these racking systems can be purchased as interlocking sets.

• Racks that are 5' usually come with eight (8) square uprights. The capacity varies based on the manufacturer, but a good rule of thumb for this racking system is for internally reinforced uprights (poles) to accommodate 6,800-9,000 lbs between the uprights (sets of poles), and to accommodate a 3,200-4,500 lbs load on each upright.

• Racks that are 10'usually come with 16 square uprights. The capacity varies based on the manufacturer, but a good rule of thumb for this racking system is for internally reinforced uprights (poles) to accommodate 23,700 lbs between the uprights or (sets of poles), and to accommodate an 11,800 lbs load on each upright.

• Keep in mind the weights or loads on the racking systems can vary by manufacturer. The numbers used in this fabrication guide are based on heavy-duty racking systems that provide high standards of safety.

• Slabs should always be placed face to face and/or back to back to prevent damage to the polished side of the slab.

• All slabs stored on these long-term storage racks should be covered with Oracle protective plastic to avoid damage.

• The vertical slab storage racking system is for long-term storage of Oracle.

FABRICATION GUIDE: RECOMMENDED FABRICATION EQUIPMENT & BASIC SAFETY EQUIPMENT

PROPER MATERIAL HANDLING OF ORACLE:

• Never transport Oracle horizontally.

• Horizontal storage of Oracle adds stress to the material and causes hairline cracks that could lead to breakage.

• Heavy-duty carts/dollies should be used when moving material around your fabrication shop.

• Heavy-duty slab booms and slab-carry clamps should be used to move material around your shop when using an overhead crane or fork truck.

• All cutouts should be supported with 2" x 4"x 8' support rails when being transported for installation.

• Pneumatic vacuum suction cups can also be usedto move slabs and finished materialthroughout the fabrication shop.

• We recommend that all suction cups be used with white rubber to prevent dark rings from appearing on the white translucent Oracle .

The following tools are a minimum requirement for a professional fabricator to have on hand to fabricate Oracle . These tools can be purchased from a variety of suppliers in the United States.

BASIC DIAMOND TOOLING& ASSOCIATED POWER TOOLS:

• Diamond polishing pads (wet pads only). Preferred grits for fabrication are 50, 100, 200, 400, 600, 800, 1500, 3000.
• Diamond Polishing Pads (Honed Finish). Preferred grits for fabrication are 100, 200, 400, 600.
• Diamond cup wheels
• Diamond core bits
• Diamond contour blades (manual sink cutouts)
• Diamond turbo blades (5" and 6"sizes)
• Diamond router bits (edge detail)
• Diamond bridge saw blades (Size will vary based on the horsepower ofyour bridge saw)
• Silicon carbide grinding wheels (less expensive than diamond cup wheels)
• Back-up pads, rigid and flexible (holder for polishing pads with 5/8-11 threads for polisher and grinder)
• Pneumatic polisher (0-4000 rpm)
• Electric grinder/polisher (variable speed of 2,800-11,000 rpm preferred)
• Water supply units for grinder and polisher if not supplied with unit

FABRICATION GUIDE: RECOMMENDED FABRICATION EQUIPMENT & BASIC SAFETY EQUIPMENT

ADDITIONAL RECOMMENDED FABRICATION EQUIPMENT:

- Bridge saw with horsepower of 20 or higher
- Automatic edge profiler
- Computer numerical control (CNC) machine
- Waterjet
- Handheld edge profiling machine
- Fork truck
- Overhead crane
- Fabrication tables
- Air compressor
- Water supply source
- Stone carts/dollies
- A-frames/storage racks
- Slab clamps

BASIC SAFETY EQUIPMENT:

Oracle dust contains silica, which can be a serious health hazard if inhaled.

Oracle should always be cut and polished with wet diamond tooling and proper ventilation throughout the shop and offices. Fabricator should always use approved dust masks, and eye, ear and foot protection when fabricating Oracle.

The following list are basic safety equipment options.

- Safety first-aid kit
- Dust masks (indoor and silica rated)
- Safety glasses
- Solvent-resistant gloves
- Ear plugs
- Waterproof, steel-toed boots
- Waterproof apron or rain suit
- Leather gloves (recommended for moving sharp slabs)
- Ground Fault Interrupter (GFI) for electric tools in a wet environment

FABRICATION GUIDE: RECOMMENDED FABRICATION EQUIPMENT & BASIC SAFETY EQUIPMENT

STANDARD SAFETY PRACTICES AND PROCEDURES FOR FABRICATORS:

1. Always wear protective clothing. Serious injury can occur if safety precautions are not followed in the fabrication shop or on the job site.

2. Fabricators should follow all safety instructions and warnings on all material safety data sheets (MSDS) for all products used in the shop.

3. Read and follow all manufacturers safety guidelines for all power tools and fabrication equipment used in the shop.

4. It is recommended that steel-toed safety boots be worn during the fabrication process, when handling or moving Oracle products, and during installation at a job site.

5. Fabricators should always use eye protection. All fabricators should use Occupational Safety and Health Administration (OSHA)-approved eye protection. Failure to use eye protection can result in serious injury.

6. Fabricators should always use hearing protection when working with machinery and power tools. OSHA limits safe sound exposure to 85 decibels during an eight-hour period. Check with the manufacturers of all your equipment and power tools and adjust hearing protection accordingly. There are outside companies that can test the noise levels in your fabrication shop and suggest proper ear protection.

7. Because Oracle recommends that our material be fabricated when wet, fabrication can create the potential for slip hazards. Floors should be sloped to trench drains, and all water should be drained away from the work area. Additionally:

     A.) All trench drains should be cleaned regularly of stone slurry to ensure good drainage for water flow.

     B.) Work area floor should be squeegeed several times a day to eliminate standing water.

     C.) Fabricators using electrical tools should make sure they are using a ground fault interceptor (GFI) and keep away from standing water. Fabrication shops should invest in cord drops from the ceiling as an electrical solution.

     D.) Pneumatic tools (those powered by compressed air) are always recomended.

8. Check your state's OSHA guidelines to better understand all proper safety protocol.

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 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 Oracle 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. Oracle 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.

FABRICATION GUIDE: TEMPLATING: JOB LAYOUT& MEASUREMENT

ADDITIONAL 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"

FABRICATION GUIDE: TEMPLATING: JOB LAYOUT& MEASUREMENT

OVERHANG/CANTILEVER REQUIREMENTS:

• Overhangs cannot exceed 1/3 of the countertop depth and must have a minimum length of 24".

• Material that is 2cm or 3cm 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	No Support Needed	Corbels Required	Columns Required
2CM material	< 8"	> 8"	> 18"
3CM 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 Oracle .

• 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 Oracle .
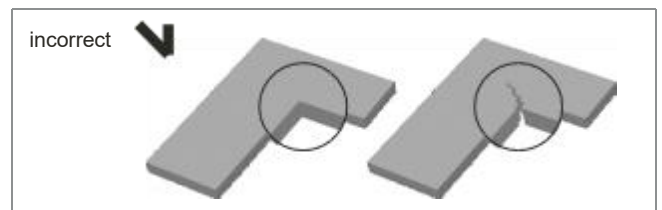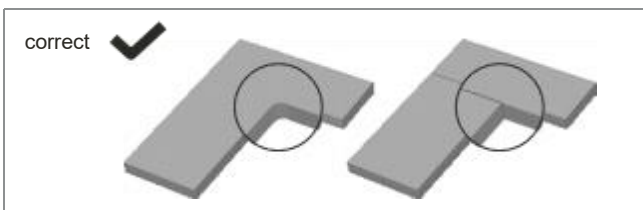
FABRICATION GUIDE: FABRICATING ORACLE

1. LAYOUT:

Before cutting Oracle slabs, calculate the square footage, length, and width of material that will be needed to complete the project. This very important when using Oracle because each batch and slab are unique and have specific shades that need to be used for each job. Inaccurate measurements may create color match concerns and more material may need to be ordered. It is important to thoroughly inspect the slab for color, pattern and defects. Do not use material with visible manufacturing defects unless the layout/job allows you to work around them.

2. 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
- If a mitered edge is used on an L shape countertop, thereby eliminating a minimum inside radius of 3/8", a field deck seam as shown below is required.

3. PROPER VEINING/COLOR MATCHING:

• Always inspect all material before fabrication. Oracle replicates marble as it is a veined material that has a non-directional pattern. During the layout process, it is very important to use extra care with respect to your seam locations. Whether the material has a factory edge or a fabricated edge, the Oracle vein distribution can be different throughout the slabs. Our veined patterns will require a more careful/specialized layout to provide the customer with a rich, aesthetic look.

• Color matching slabs before fabrication is very important as it is very normal for Oracle slabs to have slight color variations between batches or production cycles due to the complex blending of natural minerals and raw materials.

• If your job requires more than one slab, be sure to check the Oracle label for the batch number and the shade number of the slabs. After inspecting all slab numbers, it is important to remove the protective plastic film to visually inspect slabs for color variation, color matching, and any defects before cutting material.

FABRICATION GUIDE: FABRICATING ORACLE

• During the layout process, remember to color match backsplashes as they must color match and have a similar vein pattern to the countertop.

• The layout process is a critical one in the fabrication of Oracle as it directly impacts the beauty of the final product that is produced. A little extra attention during the layout process really showcases the beauty of Oracle and can create endless beauty for the homeowner.

4. PROPER CUTTING:

• All equipment that is used to cut Oracle 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 Oracle 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 Oracle . 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 Oracle 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 Oracle 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.

FABRICATION GUIDE: FABRICATING ORACLE

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 Oracle. Always follow manufacturer's guidelines.
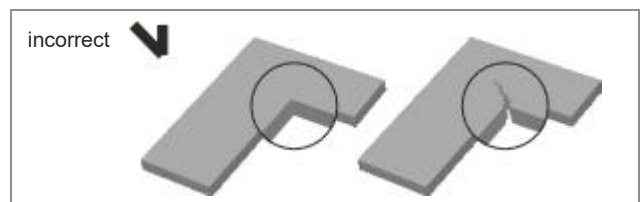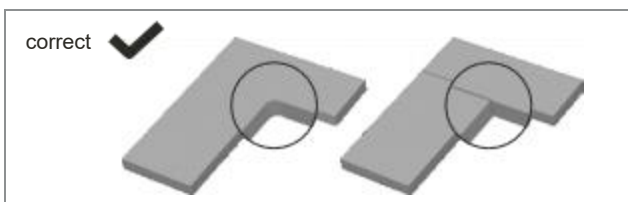
FABRICATION GUIDE: FABRICATING ORACLE

6. 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 maybe 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 ½" 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.
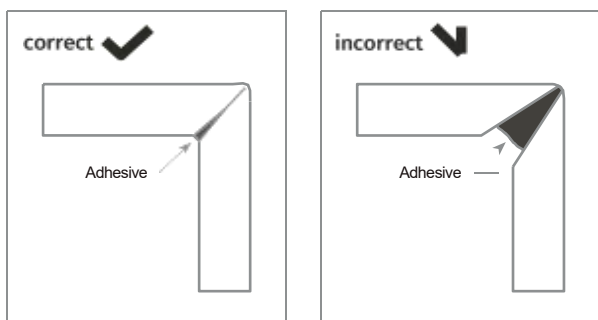
FABRICATION GUIDE: FABRICATING ORACLE

Mitered Edge:

A mitered edge is one with a perfect, 90-degree angle. This is created by joining two pieces of Oracle, 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 Oracle be used. Oracle 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.

FABRICATION GUIDE: FABRICATING ORACLE

7. POLISHING/EDGE DETAIL:

Polishing: It is very important to select the right polishing pads for Oracle. 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 Oracle. 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 Oracle, 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 Oracle. 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 Oracle is to use a grit level of 3000.

• Dry polishing the edge profile may cause overheating of Oracle. 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 Oracle.

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 Oracle will be much less visible than   the typical result you would see in either a porcelain or sintered stone slab.

FABRICATION GUIDE: FABRICATING ORACLE

• Oracle should never be polished on the top surface of the manufacturing finish.

Polishing Tips: When polishing any edge detail on Oracle 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 Oracle.

FABRICATION GUIDE: INSTALLATION ORACLE

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 Oracle countertops can begin. Measure cabinets and verify that the pieces will fit before placing the Oracle 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 Oracle 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.

• 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.
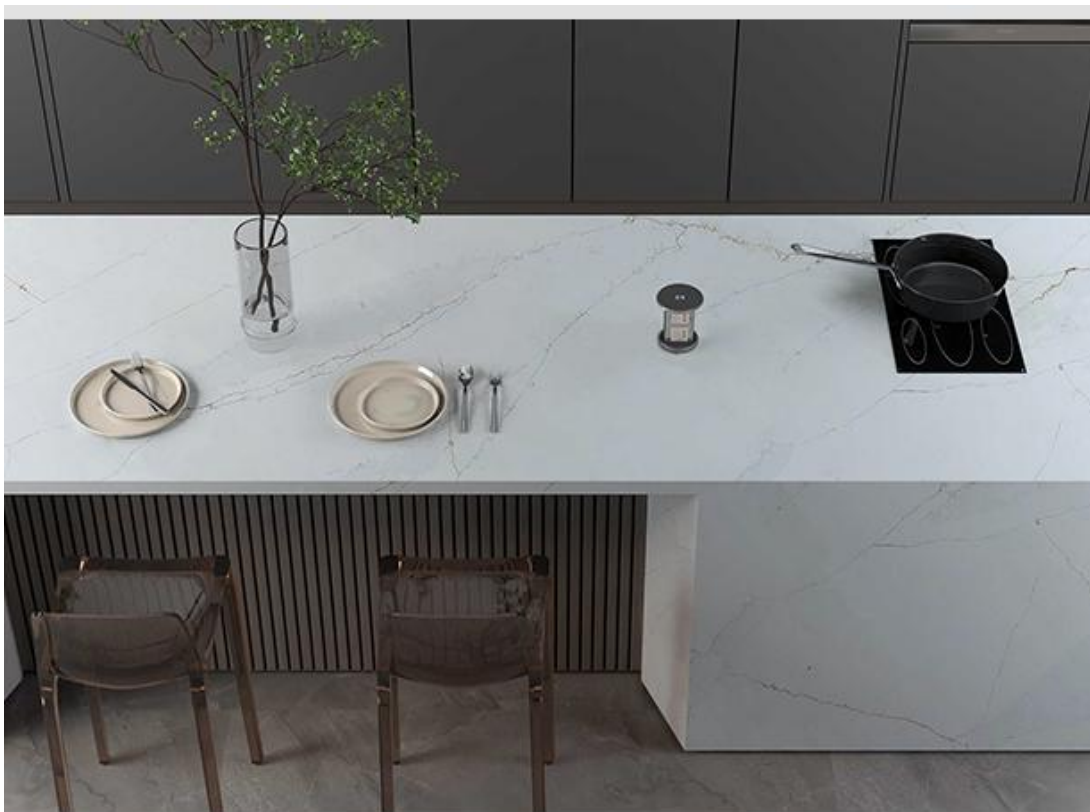
FABRICATION GUIDE: INSTALLATION ORACLE

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 70º F. During the summer month's hot temperatures, work time is reduced. During winter's colder tempera- tures, work time is increased. The cure time for two-part epoxy systems can be anywhere from 2-6 hours.

FABRICATION GUIDE: INSTALLATION ORACLE

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 Oracle as a form of support.

• Under no conditions can mechanical fasteners (screws, nails, etc.) be affixed directly to Oracle. 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.

FABRICATION GUIDE: INSTALLATION ORACLE

INSTALLATION OF BACKSPLASH MATERIALS:

•	A backsplash is typically 3" in height unless a fullbacksplash 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.

•	Oracle 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.

•	For a backsplash behind a slide in range or cooktop follow all appliance manufacturer installation requirements. A distance of 8" should remain between a gas range burner flame and the backsplash surface. Ovens that vent from the back of the range top should not be in direct contact with the backsplash and installation of a backguard is recommended. Using the overhead exhaust vent while the oven or stove top is in use is also recommended to draw off any excessive heat.
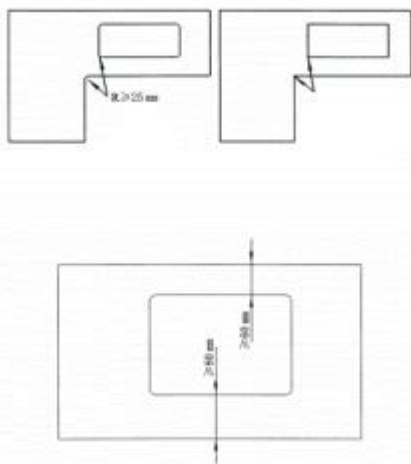
FABRICATION GUIDE: INSTALLATION ORACLE

WALL APPLICATIONS (VERTICAL):

Oraclecan 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 Oracle 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 Oracle 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.

FABRICATION GUIDE: CARE& MAINTENANCE

PROPER CLEANING & MAINTENANCE OF ORACLE:

Oracle 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.
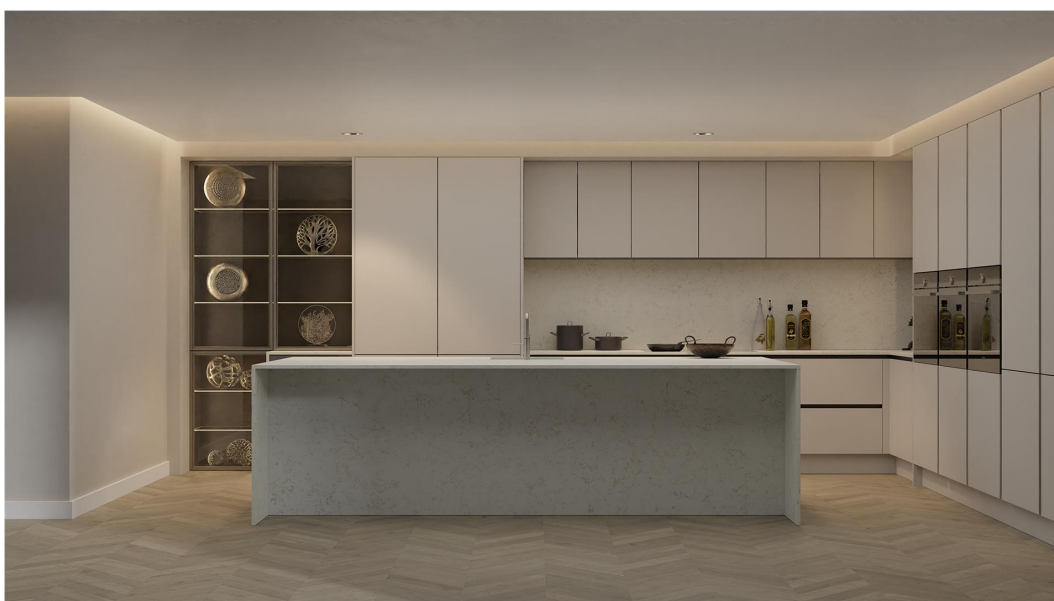
DAILY CLEANING

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 Oracle. 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 surface, 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 Oracle. Make sure about its pH before using it.

FABRICATION GUIDE: CARE& MAINTENANCE

PERIODIC CLEANING

It is recommended that Oracle 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 Oracle 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.

• Oracle 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.

• Oracle 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 Oracle.

ORACLE: CERTIFICATIONS

CERTIFICATIONS:

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

NSF

With the NSF certificate, Oracleis 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 Oracle does not generate any substance that is harmful to the environment. It also certifies the use of our surfaces in closed areas.

GREENGUARD GOLD

Oracle has also been awarded the "Greenguard Children & Schools Certificate," which confirms maximum safety in its applica- tions for schools and universities.

EPD
As per our commitment to measuring and reducing the environmental impact of our products, Aurea Stone presents the Environmental Product Declaration (EPD) by The International EPD® System, a hyper-transparent, comparable, objective and accredited third-party verified report that shows the environmental performance of our surfaces.

ORACLE: WARRANTY

Oracle by Superior Stone products have stringent quality standards and quality controls to offer an excellent product. Oracle offers unique marble effect designs with the best high-quality performance.

TERMS AND CONDITIONS:

This warranty applies only to Oracle products in interior residential or commercial applications.

Validity of the warranty:

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

Oracle 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://oraclebysuperiorstone.com/warranty-activation/, a maximum of 6 months after the purchase. The original receipt could be required anytime by Oracle. In the case of acquisition of a new property, Oracle 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 Oracle is installed and product information. In case any information is not correct, your Oracle 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 Oracle directly.

In order to assess any product claim, the policyholder agrees to allow any professional authorized by Oracle 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 Oracle in residential applications. Oracle has the right to repair or replace any material it deems defective, at its sole discretion.

ORACLE: WARRANTY

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 Oracle.

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

Oracleis 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 Oracle opts in its sole discretion to provide replacement material to satisfy valid warranty claims, Oracle will not be responsible for the costs of transporting material to the destination.

4. Because Oracle 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. Oracle highly recommends to carefully read the Architects & Designers Manual and/or the Fabrication & Installation Guide before manipulating Oracle 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. Oracle 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 are 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.

ORACLE: WARRANTY

10. Use of the product in fireplaces or similar is expressly excluded.

No other entity but Oracle is authorizedto offer any warranty agreement related to Oracle products.

This document has been updated March 2022. It prevails over any other Oracle previous warranty document and it shall come into effect on the date of its publication.