



# LINNSTONE QUARTZ SURFACES PRODUCT MANUAL

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## Introduction

Linnstone delightedly brings premium quartz surfaces to enrich your unique space. Every piece of linnstone quartz surface is carefully produced and inspected to meet and exceed customers' expectations by blending high-quality natural quartz with resin and pigments. Distinctive and diversified design style provides you with more choices of decorative effects. Linnstone provides a Residential Lifetime Warranty and Commercial Limited Warranty to the end users purchasing countertops from certified fabricators regarding the quality of slab. Any failure by a fabricator to comply with the recommended methods of fabrication of countertops from slabs may result in the refusal of an end-user claim.

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Linnstone Product Manual

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## Contents

### General Overview

04

### Health Hazards and Protection Guidelines for Respirable Crystalline Silica

08

### Fabrication Instructions

13

### Installation Guidelines

20

### Care and Maintenance

26

### Residential Lifetime Warranty

30

### Commercial 10-Year Warranty

35

### Material Safety Data Sheet

40

### Receipt Form

54

## General Overview

### Applications

Linnstone delightedly brings premium quartz surfaces to enrich your unique space. Linnstone quartz surfaces are premium quartz surfaces blending high-quality natural quartz with resin and pigments, which can be applied in residential and commercial interior decoration including kitchen countertops, bathroom vanities, office tables, wall panels, tiles, and more.

However, these surfaces should not be exposed to direct ultraviolet radiation, excessive heat over 300°F, or used outdoors.

### Measurement

Linnstone quartz surfaces are available in the following sizes:

Quartz Size

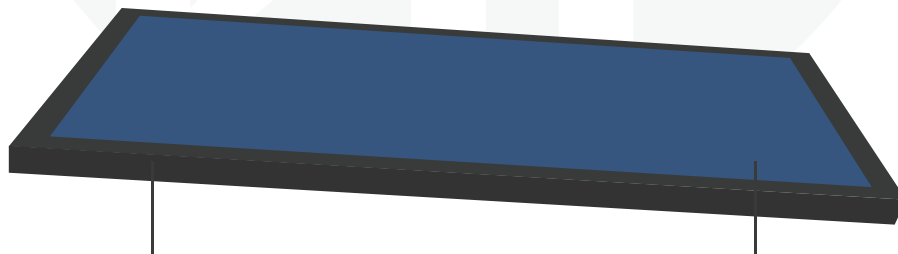
MEGA: 138" (3500 MM) \* 79" (2000 MM)

JUMBO: 126" (3200 MM) \* 63" (1600 MM)

Quartz Thickness: 3/4" (20 MM), 1 1/4" (30 MM)

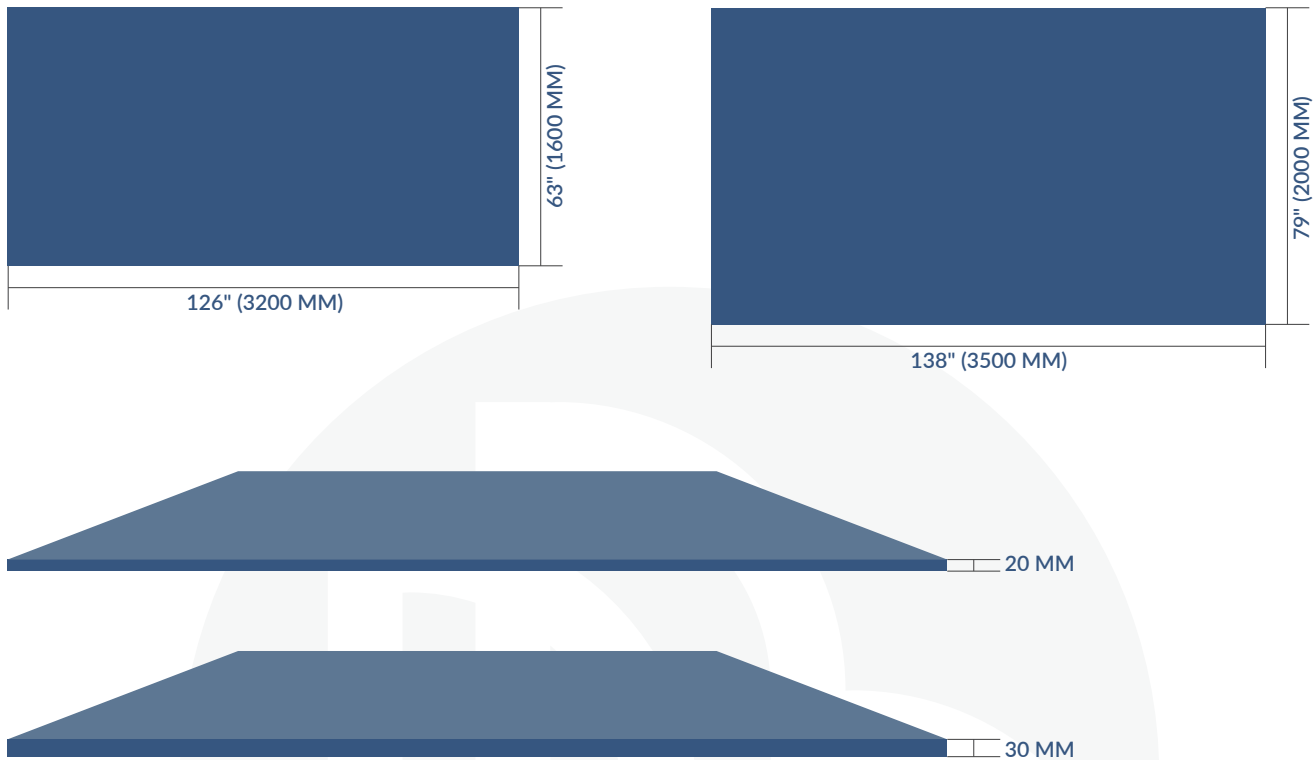
NOTE: Not all colors are available in all sizes and thicknesses.

The dimensions of slabs serve as references for storage and transportation. Each slab's actual availability may vary. Inspect the gray border area for any defects such as color issues, polish imperfections, transportation damage, or other visible flaws affecting the slab's maximum usable width and length. If the slab is found unsuitable, it should be replaced before any cutting is done.



Exercise caution when utilizing the gray-shaded area of the slab. This section must be meticulously examined before any fabrication begins, as it can vary significantly between slabs and across different sides.

The primary usable area of the slab is indicated by the blue section.



## Handling

For optimal loading and unloading of slabs from a container or truck, it is recommended to use a forklift or lifting equipment capable of handling heavy loads. Due to the weight, appropriate safety gear, such as safety shoes and gloves, should be worn. For jumbo size slabs, 2 cm material weighs 542 lbs (246 kg) and 3 cm material weighs 814 lbs (369 kg). For mega size slabs, 2 cm material weighs 741 lbs (336 kg) and 3 cm material weighs 1111 lbs (504 kg).

Handle slabs either singularly or in multiples of two. Use clamps or sling straps and lift the slabs face-to-face. Take care to grab the slabs from the backside when face-to-face for better grip.

Caution: Maintain a safe distance while handling or lifting the slabs.

## Vehicle Loads

The driver is responsible for ensuring that the load does not exceed the vehicle's legal weight limit. This cannot be determined at our premises. As a guideline, for jumbo size slabs, 2 cm material weighs 542 lbs (246 kg) and 3 cm material weighs 814 lbs (369 kg). For mega size slabs, 2 cm material weighs 741 lbs (336 kg) and 3 cm material weighs 1111 lbs (504 kg). Please also account for the weight of any other items already loaded on the vehicle.

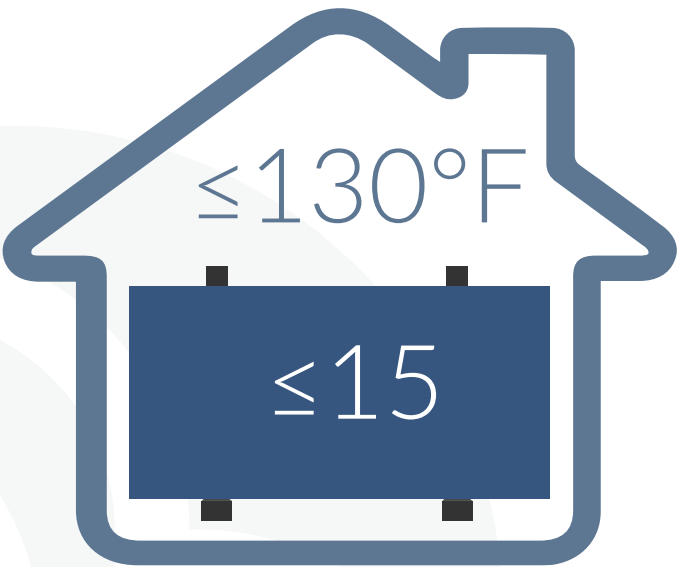
Securing the Load

Ensuring that the goods are properly supported and securely fastened to the vehicle before departure from our premises is the driver's responsibility.

Storage

Store slabs in a way that prevents warping, using at least two support beams to secure them. Each rack should hold no more than 15 slabs, arranged face-to-face and back-to-back.

To prevent warping and ensure a safe working environment, it is crucial to fasten slabs with straps in the initial stages. Additionally, polished slabs should be protected from direct sunlight, as UV rays can damage their internal structures. Ensure the last slab in each rack is positioned with its backside facing outward. Storage temperatures should be kept below 130°F.



No more than 15 slabs to each rack with the slabs face-to-face and back-to-back.  
Storage temperatures should not exceed 130°F.

Visual Slab Inspection

Before cutting linnstone quartz surfaces, a thorough visual inspection for defects or color matching is necessary. Look for the following:

- Cracks
- Color variation
- Pits
- Thickness tolerance

- Flatness
- Polishing Marks
- Scratches
- Residual Color

- Gloss
- Black Dots
- Voids
- Color Pigments

If the slab is modified in any way, we will not accept any claims regarding the above issues. It is the fabricator's responsibility to determine the suitability of the slabs before use. If the slabs are found unsuitable, they should be exchanged prior to cutting or any modifications.

Color Match & Pattern Irregularity

One of the essential steps in slab inspection is checking for color matching before cutting. Because of the natural and intricate mix of minerals, color variations may occur between slabs from different production cycles. Therefore, a visual inspection is crucial to ensure color consistency.

Linnstone quartz surfaces exhibit a random distribution of patterns throughout each slab. If there is any irregular grain distribution, the fabricator must assess whether the slab is suitable for its intended use. If deemed unsuitable, the slab should be replaced before any cutting begins.

Product Technical Data

| Specifications         | Test Method   | Results                                    |
|------------------------|---------------|--------------------------------------------|
| Water Absorption       | ASTM C97      | ≤0.05%                                     |
| Density                | ASTM C97      | 2200 - 2400 KG/M³                          |
| Flexural Strength      | ASTM C880     | Dry: 41.8-55.1 Mpa<br>Wet: 47 - 62 Mpa     |
| Compressive Strength   | ASTM C170     | Dry: 184 - 285Mpa<br>Wet: 192 - 272Mpa     |
| Modulus of Rupture     | ASTM C99      | Dry: 41.5 - 56.3Mpa<br>Wet: 43.1 - 55.5Mpa |
| Bond Strength          | ASTM C482     | 3.98 Mpa                                   |
| Abrasion               | ASTM C241     | 42 - 52                                    |
| Freeze-Thaw Resistance | ASTM C1026    | No obvious damage                          |
| Surface Burning        | ASTM E84      | Class A                                    |
| Thermal Shock          | ASTM C484     | No visible defects                         |
| Thermal Conductivity   | EN 12664:2001 | 0.469 - 0.504 W/(m/K)                      |
| Chemical Resistance    | ASTM C650     | Not affected                               |

NOTE: The values provided above represent an average range from various products tested and should be regarded as indicative only.

## Health Hazards and Protection Guidelines for Respirable Crystalline Silica

### Introduction to Guide

As a premier distributor, we at linnstone consider providing a risk-free environment for all employees and complying with all local laws as a foremost interest.

Linnstone quartz surfaces are manufactured without any hazards when transported, shipped, or used by the end consumer. However, fabricating and processing the slabs generate respirable crystalline silica dust.

Therefore, this guideline aims to:

1. Provide details on the risks and dangers of working in environments where respirable crystalline silica is produced.
2. Supply information to help minimize workers' exposure to respirable crystalline silica dust, including recommendations for safe handling and protective measures for products containing crystalline silica in the workplace.

### What is Crystalline Silica

Crystalline silica is a common mineral found in the earth's crust. Materials like sand, stone, concrete, and mortar contain crystalline silica. It is also used to make products such as glass, pottery, ceramics, bricks, and artificial stone.

Respirable crystalline silica – very small particles at least 100 times smaller than ordinary sand you might find on beaches and playgrounds – is created when cutting, sawing, grinding, drilling, and crushing stone, rock, concrete, brick, block, and mortar. Activities such as abrasive blasting with sand; sawing brick or concrete; sanding or drilling into concrete walls; grinding mortar; manufacturing brick, concrete blocks, stone countertops, or ceramic products; and cutting or crushing stone result in worker exposures to respirable crystalline silica dust. Industrial sand used in certain operations, such as foundry work and hydraulic fracturing (fracking), is also a source of respirable crystalline silica exposure. About 2.3 million people in the U.S. are exposed to silica at work.

Workers involved in manufacturing, finishing, and installing natural and manufactured stone countertops are at risk for significant crystalline silica exposure. Crystalline silica commonly occurs in nature as the mineral quartz and is found in granite, sandstone, quartzite, various other rocks, and sand. Workers who inhale very small crystalline silica particles are at risk for silicosis – an incurable, progressively disabling, and sometimes fatal lung disease.

Silicosis results in permanent lung damage. Silica dust particles become trapped in lung tissue, causing inflammation and scarring and reducing the lungs' ability to take in oxygen. Symptoms of silicosis can include shortness of breath, cough, and fatigue, and may or may not be obviously attributable to silica. Workers exposed to airborne crystalline

silica also are at increased risk for lung cancer, chronic obstructive pulmonary disease (COPD), and kidney disease.

## Work Operations Releasing Crystalline Silica Dust

Finished manufactured stone products, including finished countertops, do not present a health hazard themselves. However, cutting, grinding, chipping, sanding, drilling, and polishing natural and manufactured stone products can release hazardous levels of very small, crystalline silica dust particles into the air that workers breathe. Working with ground quartz in the countertop manufacturing industry can also expose workers to dangerous silica dust.

Workers operating powered hand tools, such as saws, grinders, and high-speed polishers, have some of the highest silica dust exposures in the countertop manufacturing, finishing, and installation industries. These exposures come from dry cutting, grinding, edging, and contouring stone, and may occur in shop environments as well as on job sites where finishing work is completed.

In the manufactured stone industry, workers may also be exposed to silica dust when opening bags of ground quartz, moving or mixing bulk raw materials, cleaning and scraping mixers, or cleaning dust collector baghouses.

Workers performing other tasks in areas close to where silica dust-generating operations occur may also be exposed. Without proper engineering controls, such as water sprays or local exhaust ventilation (LEV), and personal protective equipment (PPE), where appropriate, workers can inhale silica-containing dust from these operations.

## What is OSHA

The Occupational Safety and Health Administration (OSHA) is a large regulatory agency of the United States Department of Labor that originally had federal visitorial powers to inspect and examine workplaces. OSHA's mission is to "assure safe and healthy working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education, and assistance".

## Prevention Measures

The Occupational Safety and Health Administration (OSHA) and the National Institute for Occupational Safety and Health (NIOSH) have identified exposure to silica as a health hazard to workers involved in manufacturing, finishing, and installing natural and manufactured stone countertop products, both in fabrication shops and during in-home finishing/installation. This hazard can be mitigated with simple and effective dust controls in most countertop operations.

Engineering controls and work practices provide the best protection for workers and must be implemented first before respiratory protection is used. Working with industry partners, NIOSH and OSHA have identified the following control options for countertop manufacturing, finishing, and installation operations:

**Engineering controls and equipment changes for manufacturing and finishing**

1. Use water spraying systems and remote-controlled tools at the impact site where a saw or grinder generates dust.
2. Large bridge or gantry-like saws usually use water sprays and can be remote-controlled for dust control and cooling.
3. Hand-held angle grinders can be modified to deliver water to the point of contact with the stone.
4. Wet-edge milling machines or stone routers can replace dry grinders in shops. They provide a clean edge profile with a diamond wheel.
5. Use hand tools (e.g., drills, masonry saws, grinders) equipped with a shroud and a vacuum with a high-efficiency particulate air (HEPA)-filter when wet methods are not practicable.
6. Install LEV systems at fixed locations to capture dust at its point of origin.
7. Use a combination of both water and ventilation controls, if necessary.

**Work practices**

1. Use wet sweeping or HEPA-filtered vacuuming instead of dry sweeping or compressed air.
2. Replace water and air filters as needed to control dust.
3. Adjust water flow as necessary to control dust, following manufacturers' recommendations for water flow rates.
4. Pre-wash stone slabs prior to cutting.
5. Implement regular and thorough housekeeping procedures for water slurry and settled dust.
6. In high exposure areas, such as where cutting or polishing work generates silica dust, provide HEPA-filtered vacuums for cleaning worker clothes and water for hand, face, and hair cleaning.

**Identify and isolate remaining dust-generating operations**

1. Through air monitoring, identify high exposure activities associated with countertop finishing operations. These likely involve angle grinding, other types of grinding, and cutting with saws.
2. Isolate the silica dust-producing operation(s) using enclosures or walls. Enclosures are more effective when used with LEV.
3. Alternatively, enclose the person, if possible, by putting him or her in a control booth.
4. In some severe cases, it may be necessary to isolate some finishing tasks in separate areas. This may be needed more frequently for manufactured stone because of its high silica content.

**For installation operations in commercial and residential spaces**

1. Do as much work as possible under controlled shop conditions instead of on-site, or perform work outdoors or in well-ventilated areas to reduce respirable crystalline silica dust exposure.
2. Wet methods for dust control may not be practicable on or near finished cabinets, walls, and floors, so other suppression methods (e.g., LEV) should be used during these operations.
3. Use grinding and drilling tools equipped with dust shrouds coupled with LEV and a HEPA filter. Controls can be either tool mounted (drills) or attached to a vacuum system.
4. Use a HEPA-filtered vacuum to clean up dust as soon as practicable.

**Provide respiratory protection when it is needed to protected workers**

When engineering and work practice controls do not limit silica exposures to OSHA's PEL, employers must provide workers with respirators. Whenever respirators are required, the employer must have a respiratory protection program that meets the requirements of OSHA's Respiratory Protection standard (29 CFR 1910.134). This program must include proper respirator selection, fit testing, medical evaluations, and training.



The workers shown above are wearing a NIOSH-approved N95 filtering facepiece respirator (left), a full facepiece elastomeric respirator (center), and a loose-fitting powered air-purifying respirator (PAPR) (right).

If respirators are provided, use at least a NIOSH-approved N95 respirator. If the silica level is more than 10 times the PEL, a half-face respirator is not protective enough and a respirator that offers a greater level of protection, such as a full-facepiece respirator that will protect workers at silica levels up to 50 times the PEL, must be used. Powered air-purifying respirators (PAPR) also provide more protection than half-face air-purifying respirators. In general, workers find PAPRs to be more comfortable than pressure-demand respirators, including tight-fitting elastomeric varieties.

#### **Provide training and information to workers about the hazards of silica and other chemicals**

OSHA's Hazard Communication standard requires that employers provide their workers with training and information about hazardous chemicals used in the workplace. Employers must provide training and information to workers in a manner and language that the worker can understand. Employers must:

1. Prepare and implement a written hazard communication program.
2. Provide training and information on the hazards of silica and other chemicals used in the workplace.
3. Provide workers access to Safety Data Sheets (SDSs) on silica and other hazardous chemicals they are exposed to during countertop manufacturing, finishing, and installation.
4. Ensure that each container of hazardous chemicals is labeled appropriately.

#### **Consider medical monitoring for workers who are exposed to silica**

As part of its National Emphasis Program on Silica, OSHA recommends that employers provide medical exams to all workers who may be exposed to silica levels at or above one-half the PEL. Recommended medical tests include:

1. A medical exam that focuses on the respiratory system and includes work and medical history.
2. A chest X-ray, evaluated by a qualified professional.

## Disclaimers

The information of Respirable Crystalline Silica Health Hazards & Protection mentioned above is an excerpt from OSHA. It is impossible to cover all the details regarding crystalline silica dust in the workplace. In addition, none of the content in this guide may be construed as a recommendation for using any product or tool in violation of any laws, safety practices, or other applicable terms. Laws and regulations of silica dust are different from country to country. We suggest you check and observe local legislation related to working in environments containing hazardous dust. Local regulations shall take precedence over these guidelines.

NOTE: This guideline is excerpted from OSHA (Occupational Safety and Health Administration) for reference. Fabricators can operate according to the actual situation of respective countries and regions.

## Fabrication Instructions

### Tools and Safety Equipment

For fabricators working with linnstone quartz surfaces, it is vital to have the right tools and safety equipment to ensure the production of high-quality finished products in a safe and efficient manner. The following is a list of necessary and recommended tools and safety equipment to achieve this goal:

#### Basic Tools

- Bridge saw
- Electric/pneumatic polisher (variable speed preferred)
- Diamond grinding wheel
- Diamond polishing pad
- Grinding stone
- Core bits
- Diamond contour blade
- Wet profiling machine (edge router)
- Stone carts/dollies
- A-Frame/storage racks
- Fabrication stands
- Air compressor
- Seaming clamps
- Water source

#### Advanced Tools

- Water jet
- CNC
- Automated profiler
- Diamond jigsaw

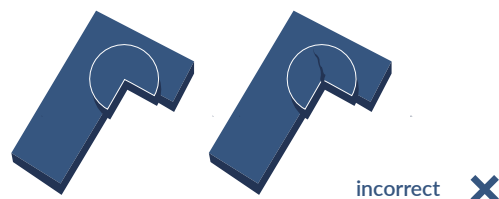
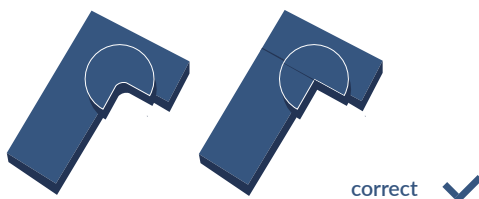
#### Basic Safety Equipment

- First-Aid kit
- Safety glasses
- Dust masks
- Safety gloves
- Steel-capped safety shoes
- Aprons
- Earplugs

### Basic Fabrication Guidelines

To ensure the production of high-quality products, please adhere to the following guidelines:

1. To prevent overheating the slab, always use water-cooled tools for cutting, drilling, and polishing linnstone quartz surfaces.
2. Avoid altering the slabs' original surface finish by re-polishing, honing, sealing, or making any other modifications to the factory finish.
3. When cutting inside corners, use a core bit to prevent damage to the corner area with the cutting disc. Damage to the radius area can create stress points.
4. Avoid cutting square corners (cross-cuts) as this can create stress points in the slab, potentially leading to cracking.
5. Any internal angled corner must be rounded. Cut with the saw up to the edge of the drilled hole, leaving the hole intact. Avoid dry grinding or polishing the corner, as overheating the area may cause cracks.



## Insider Corners

For angular-shaped kitchens (such as L- or U-shaped designs), the countertop surfaces should be fabricated from a single slab. Interior corners must have a minimum radius of  $\frac{3}{8}$ ".

## Cutouts

1. If the distance between the cutout and a joint is less than 6", the area must be supported. This can be done by placing all joints at the base cabinet joint or by installing a solid slat underneath.
2. Damage to the drilling area can lead to subtle cracks at stress points. To avoid excessive heat, which can also cause hairline cracks, always use wet diamond cutting tools for all cuts.
3. Allow an extra  $\frac{1}{8}$ " between the device and the edge of the cutout for expansion.
4. Avoid cross-cutting. Always use a core bit when preparing a cutout.

NOTE: Chiseled or hammered edges are not permitted edge details.



## Seams

1. Ensure all seams are aligned by adjusting the material before the adhesive sets.
2. Do not surface polish seams to level them.
3. If a straight seam isn't used, any internal angled corner in the seam must have a  $\frac{3}{8}$ " radius.
4. Utilize advanced seam-setting tools to keep seams narrow and unobtrusive, ensuring the seam width does not exceed  $\frac{1}{16}$ ".



## Edge Detail

1. All exposed edges should be finished to match the surface and must have a minimum edge profile of 3-4 mm ( $\frac{1}{8}$ ").
2. The top and bottom of the edges must be rounded or beveled. The preferred edge detail is a Pencil Round edge.
3. Larger edge surface areas are more resistant to chipping.
4. For high-traffic or high-abuse areas, linnstone recommends that edge details have a minimum radius of 5 mm ( $\frac{3}{16}$ ") on both the top and bottom, and a minimum of 6 mm ( $\frac{1}{4}$ ") on outside corners.

## Polishing Edge Profiles

The edge profile of any linnstone quartz surfaces should be polished gradually using only granite or marble diamond polishing pads. Linnstone recommends using high-quality pads and sufficient water for optimal polishing results. Ensure the quartz surfaces are polished smoothly, cleanly, and free from any residual adhesive. Be careful not to over-polish the edges beyond the factory surface finish.

Recommended polishing process for linnstone quartz surfaces:

1. Honed finish: 100, 200, 400-grit diamond pad
2. Polished finish: 100, 200, 400, 500-800, 1500-2000, 2000-3000-grit diamond pad

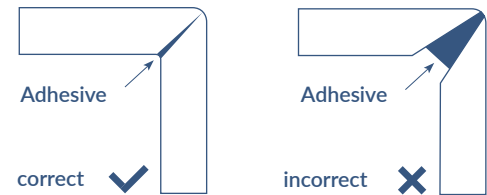
These recommendations provide a guideline for achieving a polish that matches the factory surface finish. The tools, manufacturing techniques, and diamond pads used will impact the final polishing results. When polishing edge profiles, always use water-cooled tools. Dry polishing can lead to overheating, making the edges susceptible to chipping. Overheating compromises the slab's structure, causing micro-fissures that, while not visible to the naked eye, can result in chipping, discoloration, and uneven polishing. Here are some additional tips:

1. Avoid using stone "buff" pads on linnstone quartz surfaces.
2. Do not over-polish edge details beyond the factory surface finish.
3. Use lower RPM settings on polishers when using diamond polishing pads with a grit of 1000 or higher.

## Mitered Edges

1. Mitered edges should be cut at a 45° angle to ensure maximum strength. The joint must be clean, flush, and parallel.
2. Chipping often occurs when adhesive is not evenly applied throughout the joint.
3. Mitered edges are particularly vulnerable to chipping due to their larger area of weakness. We recommend a minimum edge profile of a  $\frac{1}{8}$ " bevel, with a preferred minimum edge profile of a  $\frac{1}{8}$ " (3-4mm) Pencil Round edge.

4. Incorrect angles limit the types of edges that can be created, as larger edge profiles result in larger visible joints.
5. Do not cut edges at angles less than 45°, as this makes the edge susceptible to physical damage like chipping.
6. Ensure the adhesive is evenly distributed throughout the joint to maximize strength.



## The Practice of Polishing Finish Edges

To achieve the best textured appearance, follow these procedures:

1. Cut the surface into the required pieces or segments before polishing.
2. Use clamps to attach all pieces needed for the final design to a suitable working surface.
3. Glue the edges before polishing if necessary.
4. Cut or shape the required edge profile.
5. Smooth and polish the edge profile, following standard polishing procedures up to a maximum of 100–120 grain.
6. Use plenty of water to polish textured finish surfaces.
7. Polishing a textured finish edge will take approximately the same amount of time as polishing a regular edge.
8. Use a suitable manual, electric, or pneumatic angle grinder with a low RPM of 600–1200. Connect it to a water source and use a 60-grain special texture brush.
9. Start polishing the textured finish using the same motions as you would when polishing a standard edge.
10. Switch to a 120 grain brush and polish until there are no visible marks from the 60-grain brush.
11. Repeat the process with 400, 800, and 1600 grain brushes until the edges match the surface texture.

## Adhesives

It is crucial to use flexible adhesives when installing countertops. For attaching countertops to cabinets or substrates, and for mounting linnstone quartz surfaces backsplashes to walls, 100% clear silicone adhesive is recommended. This type of adhesive allows for limited thermal expansion. Non-flexible adhesives such as epoxies, liquid nails, or construction adhesive do not accommodate thermal expansion and may cause cracks. Linnstone quartz surfaces will not cover claims for cracks caused by bonding tops to base cabinets with non-flexible adhesives. Always follow the stone adhesive manufacturer's instructions and adhere to proper stone working and safety practices.

## Seaming & Laminations

Linnstone requires all fabricators to follow the specific manufacturer's instructions for using seaming adhesives, including adhering to the minimum working temperatures for their products. Failure to comply with these instructions will void the linnstone quartz surfaces warranty. Linnstone recommends using a polyester resin knife-grade adhesive as well as the Integra Estone 101 & Tri-Bond 30 cartridge system for all seaming and laminations.

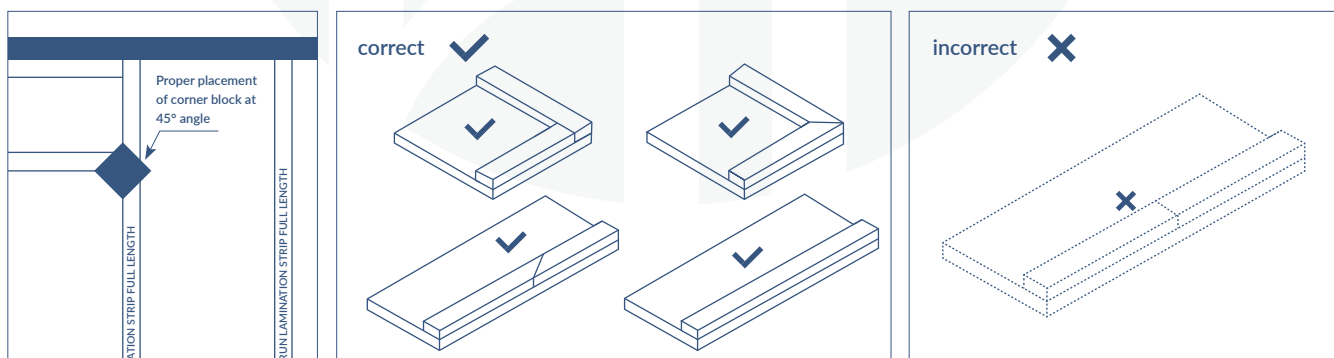
## Joint Adhesives

The adhesive used must be pigmented to closely match the color of the material being installed. This can be achieved by mixing color paste pigments with the adhesive.

## Laminations/Double Edges

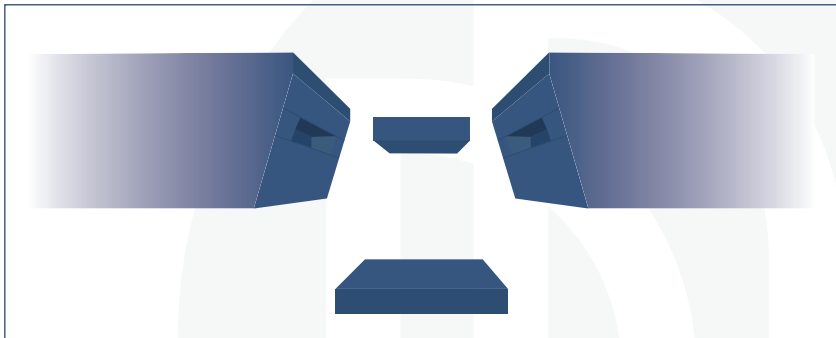
When laminating, ensure that the lamination piece is the full length of the top piece and cut at a 45° angle at the corners. If joining lamination pieces is unavoidable, the joint should also be cut at a 45° angle. Using a mitered end cut can help reduce stress on the material and prevent stress fractures. The laminating strips should be cut from the same slab as the countertop surface material to ensure color consistency. When cutting the piece to be laminated, include the size of the lamination piece in your cutting measurements to ensure you have a piece of the same color and length for the lamination.

1. Use lamination pieces that are the full length of the countertop.
2. A 45° corner joint is recommended to minimize stress on the corners.
3. For long countertops that require a joint, make sure the joint in the lamination piece is cut at a 45° angle to reduce stress points.



## Seaming

1. Ensure all seam surfaces are smooth and free of debris.
2. Use an advanced seam setter tool to minimize seam visibility. Seams should be no wider than  $\frac{1}{16}$ ".
3. Linnstone quartz surfaces require colored glue for all seams. This can be achieved using one of the premixed Integra colors or by manually tinting the glue of your choice.
4. Never use mechanical fasteners (screws, nails, etc.) on linnstone quartz surfaces.
5. Do not surface polish the seams of linnstone quartz surfaces.
6. Create grooves on the surfaces to be joined to allow space for the glue. Apply extra glue at all corners and around joints. Please refer to pictures A and B for details.



Picture A

The illustration shows the use of a beveled edge and biscuit joint to strengthen the seam. If using this technique, be sure to bevel only the seaming edge up to 1" behind the exposed surfaces.

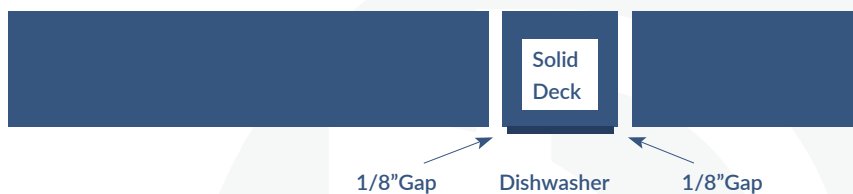


Picture B

Adhesive

### Joint Positions: Seam over dishwasher (not recommended)

1. If seams must be located above the dishwasher, ensure full deck-isolated support to provide proper backing and allow for thermal movement.
2. For the installation of  $\frac{3}{4}$ " (2cm) material, make sure to isolate the plywood sub-top above the dishwasher from the rest of the sub-top. Leave a  $\frac{1}{8}$ " gap on each side of the full deck support to achieve this.
3. When preparing seams, miters, and lamination areas, it's crucial to grind notches or grooves into the surfaces that will be bonded. Given that linnstone quartz surfaces are nonporous and won't absorb adhesive, these notches create necessary space for the adhesive in the joint.



### Transportation

Since the stone itself is very heavy and fragile, portability must be considered during packaging and transportation.

Here are three tips to keep in mind:

1. Ensure the surface of the slabs is always protected and not touching metal or the backs of other slabs.
2. Transport linnstone quartz surfaces with sections touching face-to-face or back-to-back.
3. Use a removable "A" frame for stone slab transportation, as it can be hoisted off the delivery vehicle.
4. Brace all cutouts to prevent flexing of the seams and corners.
5. Place a protective layer between the rack and linnstone quartz surfaces to prevent damage during storage and transportation.
6. Securely fasten the slabs to the rack with straps.
7. At least two people are required to transport the product to the site from the delivery vehicle.

Installation Guidelines

Preparing Base Units/Cabinets

Ensure the cabinets are fully installed and level. The tops of the cabinets must be flat, with no more than 1/16" (1.5mm) variation over 18" (457mm). Secure the cabinets and attach them to the back wall. For dishwasher installations, make sure the surrounding counter opening has sufficient support. The front edge of any countertop above a dishwasher should be supported with material matching the installed cabinets to maintain a consistent kitchen appearance.

NOTE: If the cabinets do not meet the minimum standards, the homeowner or project manager should be notified and present at the job site before installation.

Installation Support

Follow these guidelines for proper installation, materials, and support types:

- 1. Ensure linnstone quartz surfaces are supported by a sturdy perimeter frame.
- 2. Provide support from front to back inside the cabinet at every 24 inches.
- 3. Plan for 2.5-inch-wide (40mm–100mm) front-to-back support strips to coincide with cutouts and provide periodic reinforcement.
- 4. Support the top area above dishwasher spaces and under-counter ovens.
- 5. Ensure all countertop joints have proper support underneath.

Overhangs Support

Overhangs on linnstone quartz surfaces must be adequately supported. These recommendations are based on standard 24-inch-deep cabinets. The overhang should never exceed one-third of the total countertop width. If a cantilevered countertop extends beyond this limit, it is essential to install additional support underneath.

| 20 mm thick slabs   | 30 mm thick slabs   | Support needed                         |
|---------------------|---------------------|----------------------------------------|
| <300 mm (12")       | <400 mm (16")       | No extra support needed                |
| 300-500 mm (12-20") | 400-600 mm (16-24") | Use brackets spaced 600 mm (24") apart |
| >500 mm (20")       | >600 mm (24")       | Legs, columns or panels                |

One critical detail that is sometimes overlooked involves potential issues with L-shaped overhangs. When two 16" overhangs join to create an L-shape, the unsupported corner's diagonal span from the cabinet could exceed 20". In

such cases, the corner should be rounded off or reinforced with additional support underneath to prevent damage.

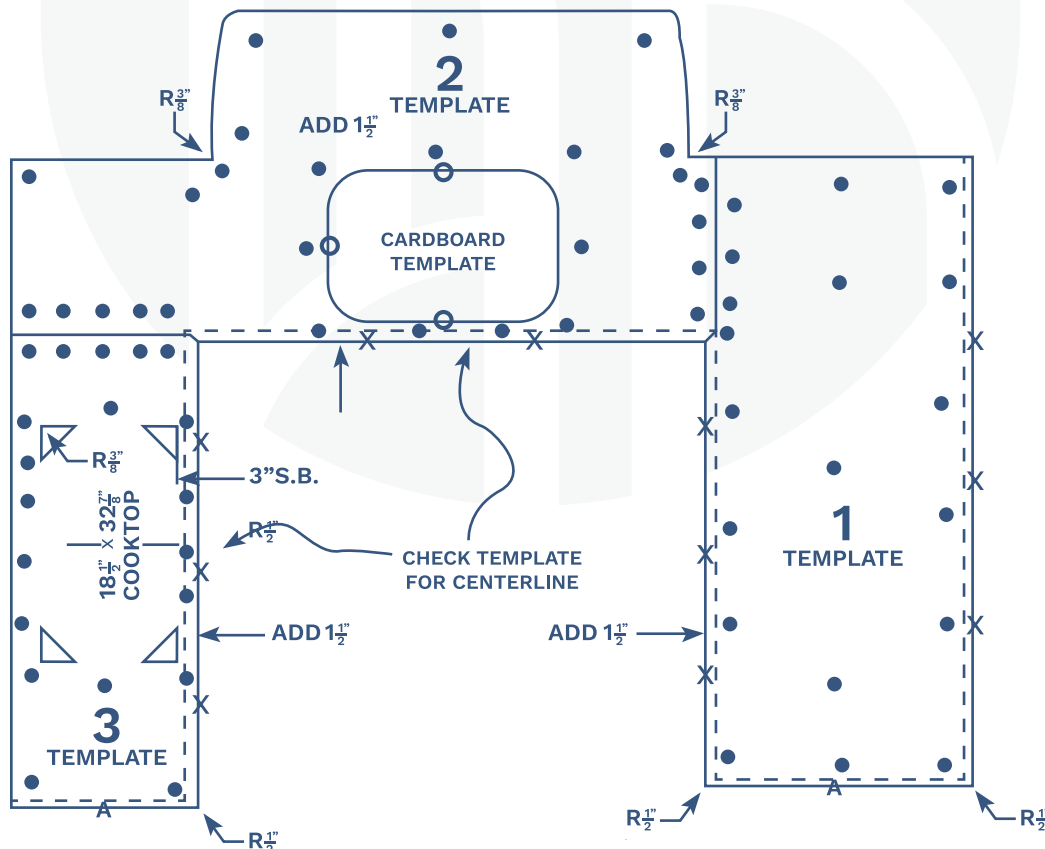
For general reinforcement, front-to-back supports should be installed inside the cabinet every 24". Use 2.5"-wide (40mm-100mm) support strips running from front to back, ensuring they are positioned to align with cutouts and provide adequate intermittent support. Additionally, every countertop seam must have proper support underneath.

## Fitting

1. Linnstone quartz surfaces require space for expansion, so ensure there is always a gap. Each countertop must have at least  $\frac{1}{8}$ " of space for expansion and contraction at each wall.
2. Mechanical fasteners like screws and nails should not be directly attached to linnstone quartz surfaces. Bolted connections are permitted.
3. When securing linnstone quartz surfaces to supports, apply flexible silicone dabs spaced 8-12" apart. Extra adhesive should be placed along all joints and cutouts.

## Countertop Adhesive

We recommend using only 100% silicone adhesive for attaching linnstone quartz surfaces to cabinets and all supports.



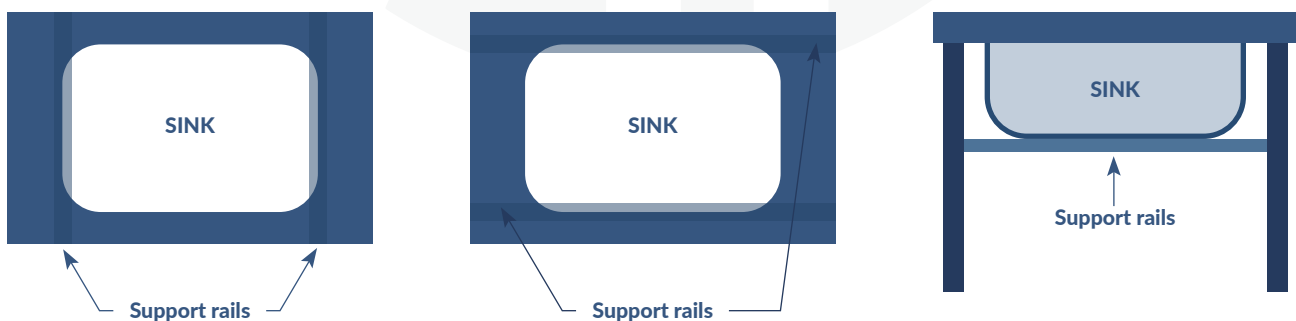
## Securing Countertops

1. Use dabs of silicone spaced 8–12" apart to secure the countertop.
2. Apply extra silicone at all corners, joints, and around cutouts.
3. Use a color-matching adhesive to join the seams.
4. Ensure all inside corners on cutouts are rounded.
5. Leave extra space between the countertop and walls to allow for expansion.
6. Do not cut corners at an angle.
7. Before installing, ensure all cabinets are level and properly supported.
8. If cabinets have adjustable legs, ensure all legs are evenly tensioned to prevent movement.

## Sinks and Basins

We suggest adhering to the sink manufacturers' guidelines for all sink or basin installations, whether top-mount or under-mount.

1. For under-mount installations, adhere to the minimum edge profile recommendations around the cutout to minimise the risk of chipping. Our recommended minimum edge profile is a  $\frac{1}{8}$ " bevel. Our preferred minimum edge profile is a  $\frac{1}{8}$ " (3–4mm) pencil round edge.
2. When installing twin basins (either top-mount or under-mount) with a tap hole in the countertop, ensure there is enough material left to maintain strength.
3. To prevent stress points in the countertop, make all sink cutouts with drilled radius corners, with a minimum radius of  $\frac{3}{8}$ ".
4. We advise that all sink installations be fully supported independently of the linnstone quartz surfaces. Ensure the use of a professional sink-setter or support rail system. Plan for 2.5"-wide (40mm–100mm) front-to-back support strips that align with cutouts and provide periodic support. All countertop joints must be properly supported.
5. Mechanical fasteners such as screws and nails should never be installed into linnstone quartz surfaces.

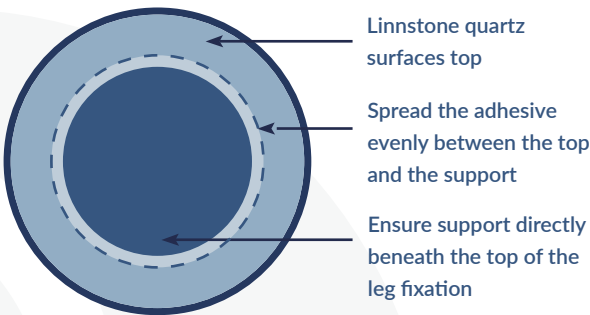


Under-mount sink installations

- 1. Use 100% silicone to seal all under-mount sinks to the countertop.
- 2. The inside edges of all under-mount sink cutouts should be polished to match the countertop surface.

Table Tops

When using linnstone quartz surfaces as a freestanding tabletop, it is crucial to pay attention to how the top is secured to the base. This is especially important for tables with only a single central leg for support. Silicone adhesive may not be rigid enough to securely attach the linnstone quartz top to the base. Instead, we recommend using a stronger, more rigid adhesive such as polyurethane building adhesive like Sika-Flex, which provides the necessary strength and flexibility to ensure the top is firmly attached to the base.



Wall Applications

Linnstone quartz surfaces demand that the walls they cover are strong, secure, and solid, adhering to all relevant laws and engineering standards. For all wall applications, Linnstone recommends using latex thin-set mortar adhesive or epoxy adhesive and grout. All bedding and grouting mortars should be weatherproof, frost-resistant, shockproof, and resistant to chemical corrosion, meeting the following physical requirements:

|                           |                                     |                     |
|---------------------------|-------------------------------------|---------------------|
| Compressive Strength:     | Thick-bed mortar                    | 3000 PSI Minimum    |
| Compressive Strength:     | Thin-bed, bonding, grouting mortars | 500 PSI Minimum     |
| Tensile Strength:         | Thin-bed, bonding, grouting mortars | 500 PSI Minimum     |
| Water Absorption          |                                     | 4%                  |
| Ozone Resistance:         | 200 hrs @ 200ppm                    | No loss of strength |
| Smoke Contribution Factor |                                     | 0                   |
| Flame Contribution Factor |                                     | 0                   |

1. Consistently follow proper stone working and safety procedures, adhering to all relevant building codes and regulations.
2. Linnstone quartz surfaces are compatible with concrete, block, and masonry-type surfaces, as well as gypsum wallboard, plaster, cement backer board, plywood, asphalt, and steel, as long as they are properly prepared and paired with the right adhesives and grout.
3. Finished mortar and grout must be resistant to urine, diluted acid, dilute alkali, sugar, brine, and food waste products.
4. Linnstone quartz surfaces, along with their setting and grouting mortar, do not act as waterproof barriers and should not replace waterproofing membranes. For information on thin, load-bearing waterproof membranes, please consult your preferred supplier.
5. Surfaces to which linnstone quartz surfaces will be bonded must be free from dust, oil, grease, paint, tar, wax, curing agents, primers, sealers, form release agents, or any substances that could impede bonding.
- 6 It is the installer's duty to remove any such contaminants before installing linnstone quartz surfaces.
7. All mortar additives, epoxy adhesives, and grouts should be from one manufacturer to ensure compatibility.
8. Ensure that all linnstone quartz surfaces are handled without fragmentation, breakage, or contamination.
9. All setting and grouting materials must be handled, stored, mixed, and applied strictly according to the manufacturer's guidelines.

## Finishing Touches

It's crucial to inform your customers that the newly installed countertop should not be used as a workbench, or as a platform for stepping or standing. Care should be taken to prevent and clean up any spills from solvents or adhesives used by other trades. Furthermore, if construction continues at the site after the installation of the surfaces, it is essential to cover the entire top of the linnstone quartz surfaces with corrugated cardboard or another suitable protective material. At the completion of the installation, linnstone recommends that customers provide written confirmation of their satisfaction with the materials and workmanship, which serves as a safeguard against damage caused by subsequent activities.

## Returning Slabs

Any slab that does not meet specifications should be returned for credit or exchange before any modifications are made. There are no restocking fees for returns made within seven days. After this period, a restocking fee may be charged.

## OSHA Policy

The distributor maintains an OSHA-compliant policy to ensure the safety of everyone on our premises. All visitors are required to adhere to the guidance provided by our staff and comply with all posted warning signs.

## Requirements for Drivers

1. Drivers must ensure that slabs are loaded correctly.
2. It's essential to inform contract drivers about specific orders they need to pick up, particularly when multiple orders are set for collection or delivery. The distributor will not cover any additional expenses incurred from items missed on the first delivery.
3. Drivers are prohibited from wandering around the warehouse unless they are escorted by someone with authorization.

## Care and Maintenance

Linnstone quartz surfaces are premium quality solid non-porous products that are highly resistant to stains caused by fruit/vegetable juices, liquid food coloring, coffee, tea, wine, soft drinks, olive oil. Normal cleaning with a damp cloth or paper towel, and if possible, a small amount of mild detergent is all you need to keep your linnstone quartz surfaces looking great. Once clean, rinse and dry the surface thoroughly. To avoid a dull surface, be sure to use a non-abrasive cleaner and rinse thoroughly after use. Linnstone quartz surfaces require minimum maintenance and following the care and maintenance guidelines will help to keep the surface in good condition for years.

### REGULAR CLEANING

#### 1. Cleaning Stubborn Stains or Dried Spills

If needed, apply common, non-abrasive, household cleaners directly to the affected area for a few minutes. Soak the affected area with pads of paper towels for 5 to 10 minutes. Scrub the area gently with a non-scratch pad in a circular movement. Rinse off any cleaner with clean water thoroughly. Then dry with a soft cloth or paper towel thoroughly. If necessary, apply Windex streak-free as the final step to clean any gel residue.

#### 2. Removing Adhered Materials

Adhered materials refer to materials like gum, nail polish, paint, or any other foreign matter. First, carefully scrape away the excess material with a plastic putty knife or a razor. And then clean the surface with a damp cloth to remove any marks left behind and any residual dirt. Also do not use abrasive pads to clean tougher dirt as abrasives can damage the finish/sheen of your countertops. Any gray marks left by the blade can be removed with household cleaners and ordinary scouring pads. If necessary, use Windex streak-free to rinse and clean any gel residue.

#### 3. Textured Finishes Cleaning and Maintenance

Texture Finishes refer to finishes other than polishing finishes, such as honed finishes, leathered finishes. These finishes require more cleaning than our polished finish. Fingerprints, grease, wet spots, metalmarks, and other signs of daily living show more on these types of surfaces. Most of these marks can be easily removed with little effort and non-abrasive cleaning products such as Soft Scrub Liquid Gel. These types of finishes are not recommended for high-traffic areas.

### CAUTION

#### 1. Avoid Chemicals & Solvents (Cleaners)

Quartz can be permanently damaged by prolonged exposure to strong chemicals and solvents. It is advisable to avoid exposing linnstone quartz surfaces to chemicals with PH levels outside of the range 5-8, such as grill cleaners, floor strippers, paint removers/furniture strippers, toilet bowl cleaners, the product with pumice, oil soaps, tarnish,

or silver removers, furniture cleaners, drain products, battery acid, dishwasher detergent, etc. If your linnstone quartz surfaces are accidentally exposed to any potentially damaging products, rinse immediately with water to neutralize the effect.

Do not use abrasive or strong alkaline/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 linnstone quartz surfaces. Be very aware of these potential damages to your product.

## 2. Avoid Scratch & Hitting

Linnstone quartz surfaces are durable and more resistant to surface damage than other stones. However, all stones can be damaged by force and no stone is chip-proof. Objects hitting edges particularly at sinks or dishwashers may cause chips. Though a minor knife slip will dull the knife and not harm linnstone quartz surfaces, no stone surface is scratch-proof. Surface markings are more visible on mono stone designs than multi-colored surfaces. The use of a cutting board is always recommended when using sharp knives. Care should be exercised when moving heavy objects, and avoid dropping heavy kitchen tools, particularly on the edges of sinks or dishwashers.

## 3. Heat Caution

Linnstone quartz surfaces are designed and manufactured to withstand moderate heat but the products are not heatproof. Like any other composite material, linnstone quartz surfaces may be damaged by sudden or lasting exposure to high temperature resulting in cracks, especially at the edges and cutouts of the product. To prevent thermal shock, discoloration, or other damages, it is necessary to use insulating pads when putting hot objects on the surface. Keep linnstone quartz surfaces away from open flames and avoid prolonged contact with very hot pots. We always recommend using a hot pad or trivet, especially when using cooking units such as electric frying pans, griddles, crock pots, or toaster ovens. Do not put hot cookware directly on the surface of linnstone quartz surfaces.

## 4. Avoid Sun Exposure

Minimize direct sun exposure to linnstone quartz surfaces. Long-term exposure to direct sunlight may discolor the surface finish. Linnstone quartz surfaces are only for interior applications.

# ATTENTION

## 1. Color Consistency & Uniformity

Linnstone quartz surfaces are pure natural quartz. Variation in the natural stone (quartz) color, pattern, size, shape, and shade are inherent and unique characteristics to be expected with this product. This does not affect the product's performance in any manner.

Color blotches are intended and designed into many products to enhance 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. The product will not be replaced due to these variations.

## 2. Support

Linnstone quartz surfaces are not structural support products. The linnstone quartz surfaces of 2 or 3cm thickness are for countertop only and must be supported. The linnstone quartz surfaces of less than 2cm thickness are for surface finishes such as walls, tub and shower surround, and fireplaces. Horizontal applications such as a tub deck must be completely supported.

## 3. Installation

Linnstone quartz surfaces installation is optimized when walls and cabinets are properly prepared for installation. This includes but is not limited to structurally sound, straight, level, and square walls and cabinets, lack of which may cause poor installation and poor seam fit, or inconsistent countertop overhang and placement.

Linnstone quartz surfaces installation does not include qualification of any sink or stove cutouts (any cutouts), faucet hole locations, or cabinet sizes. Linnstone is not responsible for verifying whether sinks, stove, or other cutout appliances, cabinets, and faucet hole locations fit together well, or at all. This is the responsibility of the owner, general contractor, or the like. Linnstone will fabricate cutouts as per supplied model/template information. Linnstone is not responsible for the accuracy of the information provided.

Proper care and maintenance of goods are the responsibility of the owner and/or other users. The Care and Maintenance Guidelines published at [www.linnstone.com](http://www.linnstone.com) are for reference.

Linnstone might update the guidelines at its sole discretion at any time. Following the up-to-date guidelines is highly recommended, which is helpful to keep your linnstone quartz surfaces in good condition for years.

NOTE: THE "LINNSTONE" AND "LINNSTONE" LOGOS ARE REGISTERED TRADEMARKS OF LINNSTONE CORPORATION OR ITS AFFILIATES.

Special Maintenance Considerations Form



Considerations for Textured Finishes

Linnstone offers a diverse range of colors with various quartz textured finishes, including honed, leathered, and raw, which are distinct from our polished finishes. These textured surfaces require more frequent cleaning as they tend to show fingerprints, grease, wet spots, metal marks, and other signs of daily wear more prominently. Most of these marks, however, can be easily cleaned with little effort using non-abrasive cleaners like Soft Scrub Liquid Gel. These types of finishes are not recommended for high traffic areas due to their maintenance needs.

By signing this document, you confirm your understanding that the characteristics of these unique finishes have been thoroughly explained to you. Additionally, you acknowledge that linnstone quartz surfaces come with a Residential Lifetime Warranty and a Commercial 10-Year Warranty. These warranties only cover failures due to product defects when the material is installed by a linnstone Certified Fabricator. It is important to note that temporary marks, which are common on these finishes, are not covered under the linnstone warranty.

For more detailed warranty information, please refer to the Residential Lifetime Warranty, Commercial 10-Year Warranty, and the Care and Maintenance sections on the linnstone website at [www.linnstone.com](http://www.linnstone.com).

|                        |  |                           |  |
|------------------------|--|---------------------------|--|
| NAME OF PURCHASER      |  | NAME OF DEALER/FABRICATOR |  |
| SIGNATURE OF PURCHASER |  | SIGNATURE OF PURCHASER    |  |
| DATE                   |  | DATE                      |  |

## Residential Lifetime Warranty

Linnstone warrants to repair or replace its material that fails due to any manufacturing defect when fabricated and installed by a Certified Fabricator from the original date of installation. This warranty applies exclusively to the repair or replacement of failed material that has been permanently installed in your residence. The option to repair or replace the material is at the sole discretion of linnstone. The cost of installation and/or fabrication is NOT covered under this warranty.

This Residential Lifetime Warranty is available only to the ORIGINAL OWNER of a single-family residence in which linnstone quartz surfaces have been originally installed. In the case of a newly constructed single-family residence, this warranty is available to the “first” owner purchasing the residence with linnstone quartz surfaces permanently installed.

This warranty is published officially at [www.linnstone.com](http://www.linnstone.com). Linnstone might update the warranty clause at its sole discretion at any time. But the specific version of the warranty published on the original date of installation is binding upon you and linnstone.

### Terms and Conditions

1. This warranty applies only to linnstone quartz surfaces and does not apply to any other products, including other quartz surfacing products manufactured or supplied by any other party.
2. This warranty applies only to linnstone quartz surfaces that have been permanently installed in the interior of single-family residences and have not been moved or altered from their original installation. If after or during installation you decide that you do not like the color or finish you selected, that subjective decision is not covered under this warranty.
3. This warranty does not cover materials and/or services that have not been paid in full.
4. This warranty applies only to materials that have been maintained according to the Linnstone Quartz Surfaces Care & Maintenance guidelines. The Care & Maintenance guidelines are available at [www.linnstone.com](http://www.linnstone.com).
5. To request service under this warranty, you must contact the company who sold you linnstone quartz surfaces or contact linnstone directly within thirty (30) days once the failure of linnstone quartz surfaces occurs.
6. Following installation, you must register your product within thirty (30) days to activate your warranty at [www.linnstone.com](http://www.linnstone.com). If no record of your warranty is on file, you must provide proof of purchase in the form of a

copy of your original receipt or invoice showing the name of the owner, authorized dealer, and linnstone certified fabricator. Upon receipt of your original receipt or invoice above, linnstone will fully honor this warranty even though no register is on file. You must agree to cooperate with linnstone or its authorized agents in the inspection of the product and assist us in efforts to perform our obligations under this warranty.

7. If linnstone quartz surfaces fail due to a manufacturing defect, linnstone will, at its sole discretion, repair or replace such materials. Linnstone will seek to obtain the best possible result, whether we decide to repair or replace your product. However, an exact color match is never guaranteed.

8. All decisions regarding this warranty are at the sole discretion of linnstone and shall be final and binding on all parties. No representative, dealer, salesperson, distributor, fabricator, or any other person is authorized to make any warranty or promises on behalf of linnstone.

9. This warranty expires upon transferring the ownership of the property to subsequent parties. This warranty is not transferable and does not cover claims made by subsequent owners of your home.

## Exclusions

1. This warranty does not cover use for any commercial purposes. Commercial use includes but is not limited to, use in a store, rental properties, office, or any other place of business.

2. This warranty does not cover products installed in any outdoor places.

3. This warranty does not cover products used as flooring material.

4. This warranty does not cover improper use or abuse. Improper use or abuse includes, but is not limited to, damage from mishandling of the product, damage from excessive heat or uneven exposure to weather conditions, physical or chemical abuse, and damage from improper care and maintenance. Do not use cleanings products including oven cleaner, paint remover, or any other similar products, as they may undermine the surface.

5. This warranty does not cover chips or other excessive impact damage to the product.

6. This warranty does not cover scratches. Linnstone quartz surfaces are a very hard material and highly scratch resistant but not scratch-proof. Proper care must be exercised including the use of a cutting board as part of your care and maintenance.

7. This warranty does not cover routine maintenance. Routine maintenance includes but is not limited to, minor

conditions such as removing stains and water spots by following the techniques specified in the Linnstone Quartz Surfaces Online Care & Maintenance Guidelines at [www.linnstone.com](http://www.linnstone.com).

8. This warranty does not cover failures due to fabricators/installers not following the prescribed fabrication and installation procedures as outlined by linnstone. Improper fabrication and/or installation is the sole responsibility of the fabricator and/or installer.

9. This warranty does not cover any defects that were visible at the time of fabrication and were not avoided during fabrication. Fabricators are required to perform a visual inspection of all materials before fabrication and again before installation.

10. This warranty does not cover seam appearance or seam performance, adhesives, caulk, or other accessory items. Once the product is installed, the main reasons for seam separation or cracking are the shifting or movement of the substrate, cabinets or foundation, and thermal shock. Thermal shock can occur when a hot pan, dish, or other receptacle or object is left on the countertop for even a brief period. Trivets or hot pads should always be used. These issues are not considered material defects and are subject to proper care and maintenance by the owner.

11. This warranty does not cover any chemical damage.

12. This warranty does not cover any abnormal use of the material including bending or curving.

13. This warranty does not cover material that has been milled or reduced in thickness.

14. This warranty does not cover the installation of sinks, other plumbing fixtures, or appliances.

15. This warranty does not cover securing mechanical fasteners directly into the material.

16. This warranty does not cover any failures due to inadequate support for the installation. This includes overhangs over recommended support guidelines provided by linnstone or an unsupported base.

17. This warranty does not cover any chips or cracks that are a result of “dry” cutting or polishing and/or not following the minimum requirements for edge details.

18. This warranty does not cover mitered edges where the joint is not cut correctly.

19. This warranty does not cover the alteration of any linnstone factory-applied finish. Only colors listed as available in our brochure, sample book, or on our website as “honed” are eligible under this warranty. Any issues arising from

the practice of “in-shop” honing are the sole responsibility of the fabricator.

20. This warranty does not cover temporary marks that are common to honed finishes such as metal marks, fingerprints, or other signs of daily living. A signed “Special Care Considerations for Linnstone Quartz Surfaces Textured Finishes” form is required to be submitted to linnstone or its authorized representatives to receive coverage under this warranty. This form must be signed by the end-user /owner of the finished installation.

21. This warranty does not cover additional modifications or supplemental repairs such as structural changes, plumbing, electrical installation, tile, cabinets, flooring, etc. that may be necessary to repair or replace the linnstone quartz surfaces covered under this warranty. The supply of these materials and labor costs shall be the responsibility of the customer.

22. This warranty does not cover natural variations in the color, size, shape, and distribution of the pattern of the natural quartz or the natural variations in background tone. These characteristics are inherent and unique characteristics of the product. Color samples provided to consumers, dealers, and fabricators are for reference only and not an exact replication of what will be installed in your home. We advise customers to check the actual slabs to make sure the right colors are received.

23. This warranty does not cover what is referred to as spots or blemishes smaller than 10 mm. A certain level of spots or blemishes are inherent in the manufacturing process and do not affect the structural integrity of the material.

24. Linnstone quartz surfaces might contain important product information on the back of each slab. Removing this product information will void the warranty.

25. Linnstone is not responsible for damage or injury caused in whole or in part by force majeure, job site conditions, and architectural/engineering design or changes, structural movement/degradation, acts of vandalism, or accidents.

26. Linnstone shall not be responsible in either contract or tort for any loss of direct, indirect, consequential, incidental, special, exemplary, or punitive damages arising out of the use or the inability to use the products covered by this warranty. Some states do not allow exclusion or limitation of incidental damages, so the above limitations or exclusions may not apply to you.

27. This warranty applies only to the purchases of the slab and does not apply to pre-fabricated countertops. Inspect thoroughly the pre-fabricated countertops before fabrication is the sole responsibility of the purchaser. After pre-fabricated countertops have been installed, linnstone will not acknowledge any claim.

THE FOREGOING IS THE COMPLETE WARRANTY FOR LINNSTONE AND SUPERSEDES ALL OTHER WARRANTIES AND REPRESENTATIONS, WHETHER ORAL OR WRITTEN.

EXCEPT AS EXPRESSLY SET FORTH ABOVE, NO OTHER WARRANTIES ARE MADE CONCERNING LINNSTONE BY WORDS OR CONDUCT.

LINNSTONE EXPRESSLY DISCLAIMS ALL WARRANTIES NOT STATED HEREIN, INCLUDING, TO THE EXTENT PERMITTED BY APPLICABLE LAW, ANY WARRANTY THAT MAY EXIST UNDER NATIONAL, STATE, PROVINCIAL OR LOCAL LAW INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SOME LOCATIONS OR OTHER JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM DIFFERENT LOCATION.

THIS WARRANTY CONSTITUTES A PART OF THE SALES CONTRACTS YOU SIGNED.

NOTE: THE "LINNSTONE" AND "LINNSTONE" LOGOS ARE REGISTERED TRADEMARKS OF LINNSTONE CORPORATION OR ITS AFFILIATES.

## Commercial 10-Year Warranty

Linnstone warrants that its installed products will be free from manufacturing defects in an interior, commercial use situation for ten (10) years from the date of installation. If a manufacturing defect occurs during the warranty period, this warranty applies exclusively to the repair or replacement of the defective linnstone quartz surfaces.

This warranty applies to the repair or replacement of defective material in slab form. Linnstone is not responsible for any other labor costs that could be associated with the repair or replacement of material, including but not limited to the removal, disposal, fabrication, installation, repair, or replacement of collateral items.

No warranty whatsoever is made in regards to materials produced or provided by other manufacturers.

All decisions regarding the existence of manufacturing defects or affecting this warranty shall be made by linnstone and shall be final and binding on all parties. No representative, dealer, salesperson, distributor, fabricator, or any other person is authorized to make any warranty or promises on behalf of linnstone.

In the event of a defect covered under this warranty, linnstone shall have the sole discretion whether to repair or replace the defective material. The cost of installation and/or fabrication is NOT covered under this warranty. Without derogating from the aforementioned, replacement of defective linnstone slab will be subject to inventory constraints. Besides, the replaced slab may not be the same as the defective slab.

Commercial Property is defined as any location open to the general public for business use, private properties subject to residential or commercial rental or lease, or properties designated as hotels, motels, or other temporary residence applications.

This warranty is published officially at [www.linnstone.com](http://www.linnstone.com). Linnstone might update the warranty clause at its sole discretion any time. But the specific version of warranty published on the original date of installation is binding upon you and linnstone.

### Terms and Conditions

1. This warranty applies only to linnstone quartz surfaces. This warranty does not apply to any other products, including other quartz surfacing products manufactured or supplied by any other party.
2. This warranty applies only to linnstone quartz surfaces that have been permanently installed in the interior of a commercial structure and have not been moved or altered from the original installation.

3. This warranty is issued to the ORIGINAL OWNER of the commercial property who purchased and installed linnstone quartz surfaces. This warranty expires upon transferring the ownership of the property to subsequent parties. This warranty is not transferable and does not cover claims made by subsequent owners of the commercial properties.
4. This warranty only covers materials that have been paid in full.
5. This warranty does not apply to unoccupied structures.
6. Linnstone quartz surfaces must be maintained according to Linnstone Quartz Surfaces Care & Maintenance Guidelines. The Care & Maintenance guidelines are available at [www.linnstone.com](http://www.linnstone.com).
7. This warranty only applies to polished finishes. It does not apply to surfaces with honed and textured finishes.
8. Color samples provided to owner customers, fabricators, and installers may not match the actual stone. Linnstone quartz surfaces are made of natural quartz. Variation in color, shade, pattern movement and grain size are quite normal on this natural product. Samples are small pieces cut from a slab; they do not display all the characteristics of the actual slab. These characteristics are inherent in the quartz stone. Color samples provided are for reference only and not an exact replication of what will be installed on your property. We advise customers to check the actual slabs to make sure the right colors are received.
9. If linnstone quartz surfaces fail due to a manufacturing defect, linnstone will, at its sole discretion, repair or replace such materials. Linnstone cannot guarantee an exact color match to an existing product. Linnstone is not liable for any loss of direct or indirect, consequential, incidental, punitive, or any other similar damages arising out of the use or inability to use the product covered by this warranty, including but not limited to loss of use, loss of profits, business interruption, and/or any other losses.
10. Laws and building safety regulations governing the design, engineering, and construction of installations vary widely. Linnstone has no responsibility concerning the selection, design, engineering, or construction of the installation.
11. To obtain service under this commercial warranty, the customer must provide proof of purchase in the form of the sales contract showing the name of the owner of the commercial property. This warranty is not applicable without proof of original contract.

12. Following installation, you must register your product within thirty (30) days to activate your warranty. Complete the online warranty registration form at [www.linnstone.com](http://www.linnstone.com). You must agree to cooperate with linnstone or its authorized agents in the inspection of the product and assist us in efforts to perform our obligations under this warranty.

## Exclusions

1. This warranty does not cover linnstone quartz surfaces installed in any outdoor places.
2. This warranty does not cover linnstone quartz surfaces used as flooring material.
3. This warranty does not cover seam appearance or seam performance, adhesives, caulks, or any other accessory items. Once the product is installed the main reasons for seam separation or cracking are the shifting or movement of the substrate, cabinets, foundation, or thermal shock. Thermal shock can occur when a hot pan, dish, or other receptacle or object is left on the countertop for even a brief period. Trivets or hot pads should always be used. These issues are not considered material defects and are subject to proper care and maintenance by the owner.
4. This warranty does not cover any fabrication work that was not completed by a linnstone certified fabricator.
5. This warranty does not cover abnormal use or conditions or abuse in any way. Abnormal use or conditions includes, but is not limited to, damage from mishandling or misuse, damage from excessive heat or exposure to weather conditions, exposure to ultraviolet light, physical or chemical abuse, and damage from improper care and maintenance, or failure to follow proper installation practices. Never use paint removers, strong alkaline, acid or oxidizing substances, and products with pumice.
6. This warranty does not cover additional modifications or supplemental repairs such as structural changes, plumbing, electrical installation, cabinets, tiles, etc. that may be necessary to complete the repair or replacement of linnstone quartz surfaces covered under this warranty. The supply of these material and labor costs shall be the responsibility of the owner of the commercial property.
7. This warranty does not cover chips, scratches, thermal shock, impact damage, or chemical damages. Linnstone quartz surfaces are highly resistant to scratches, but they are not scratching-proof. No cutting shall be done directly on the surface and a cutting board shall always be used. Proper care and maintenance shall be followed at all times – refer to the Linnstone Quartz Surface Care & Maintenance Guidelines at [www.linnstone.com](http://www.linnstone.com).
8. This warranty does not cover mitered edges where the joint is not cut correctly.

9. This warranty does not cover the alteration of any linnstone factory-applied finish. Any issues arising from the practice of “additional and/or in shop honing” are the sole responsibility of the fabricator who performed the process and/or the owner who purchased the original linnstone quartz surfaces.
10. This warranty does not cover any abnormal adjustment made to the material including bending, curving, thickness reduction, surface finish variation, or any other alteration to the original linnstone quartz surfaces.
11. This warranty does not cover any failures due to inadequate support for the installation. This includes overhangs over recommended support guidelines provided by linnstone or an unsupported base. Improper fabrication and/or installation is the sole responsibility of the fabricator/installer.
12. This warranty does not cover the installation of sinks, other plumbing fixtures, or appliances.
13. This warranty does not cover a product that has been moved from its original installation location.
14. Linnstone is not responsible for damages or injury caused by force majeure, job site conditions, architectural/engineering design or changes, structural movement/degradation, acts of vandalism, or accidents.
15. Linnstone quartz surfaces might contain important information on the back of each slab. Removing this product information will void the warranty.
16. This warranty does not cover what is referred to as spots or “beauty marks” smaller than 16mm (5/8 inches). A certain level of spots or “beauty marks” are inherent in the manufacturing process and do not affect the structural integrity of the material.
17. To obtain service under this limited warranty, a linnstone authorized agent must be permitted to inspect the linnstone quartz surfaces being claimed. Linnstone requires full cooperation with its agent in the efforts to service this limited warranty. Linnstone’s findings shall be final and binding to all parties.
18. Linnstone makes no other warranty, representation, or guarantee, express or implied, concerning its products, except as expressly stated herein. This is the only warranty offered by linnstone for its quartz surfacing materials.
19. Other than linnstone itself, no one is authorized to make any warranty or promise on behalf of linnstone concerning its materials.

THE FOREGOING IS THE COMPLETE WARRANTY FOR LINNSTONE AND SUPERSEDES ALL OTHER WARRANTIES AND REPRESENTATIONS, WHETHER ORAL OR WRITTEN.

EXCEPT AS EXPRESSLY SET FORTH ABOVE, NO OTHER WARRANTIES ARE MADE CONCERNING LINNSTONE BY WORDS OR CONDUCT.

LINNSTONE EXPRESSLY DISCLAIMS ALL WARRANTIES NOT STATED HEREIN, INCLUDING, TO THE EXTENT PERMITTED BY APPLICABLE LAW, ANY WARRANTY THAT MAY EXIST UNDER NATIONAL, STATE, PROVINCIAL OR LOCAL LAW INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SOME LOCATIONS OR OTHER JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM DIFFERENT LOCATION.

THIS WARRANTY CONSTITUTES A PART OF THE SALES CONTRACTS YOU SIGNED.

NOTE: THE "LINNSTONE" AND "LINNSTONE" LOGOS ARE REGISTERED TRADEMARKS OF LINNSTONE CORPORATION OR ITS AFFILIATES.

Only linnstone will make decisions concerning this warranty. No distributor, fabricator, installer, or individual is permitted to issue warranty statements or commitments on behalf of linnstone quartz surfaces.

Other than what is expressly stated in this document, linnstone offers no additional warranties, representations, or guarantees, whether express or implied, concerning its products.

## Material Safety Data Sheet

### 1 Identification

#### Product identifier

Trade name: Quartz Surfaces

Recommended use of the chemical and restrictions on use:

Application of the substance / the preparation: Countertops, Floorings, etc

Details of the supplier of the safety data sheet

Manufacturer/Supplier: Linnstone

Full address: 955 Sivert Drive, Wood Dale, IL 60191

Phone number: +1-630-755-5466

Email: info@linnstone.com

Other U.S. contact point: Not available

Further information obtainable from: Linnstone

Emergency telephone number: Poison Center, Tel: +1 800 222 1222

### 2 Hazard(s) identification

#### Classification of the substance or mixture

Classification according to OSHA Hazard Communication Standard (29 CFR 1910.1200)



GHS08 Health hazard

Carc. 1A H350 May cause cancer.

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

STOT RE 1 H372 Causes damage to the hearing organs through prolonged or repeated exposure.



GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

#### Information concerning particular hazards for human and environment:

The product has to be labeled due to the calculation procedure of OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification system:**

The classification is according to the latest edition of OSHA Hazard Communication Standard (29 CFR 1910.1200), and extended by company and literature data.

**Label elements**

Labelling according to OSHA Hazard Communication Standard (29 CFR 1910.1200)

**Hazard pictograms**

GHS07



GHS08

**Signal word** Danger

**Hazard-determining components of labeling:**

Cristobalite

styrene

Tert-butyl 2-ethylperoxyhexanoate

**Hazard statements**

|      |                                                                             |
|------|-----------------------------------------------------------------------------|
| H319 | Causes serious eye irritation.                                              |
| H317 | May cause an allergic skin reaction. H350 May cause cancer.                 |
| H361 | Suspected of damaging fertility or the unborn child.                        |
| H372 | Causes damage to the hearing organs through prolonged or repeated exposure. |

**Precautionary statements**

|                |                                                                                                                                  |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| P201           | Obtain special instructions before use.                                                                                          |
| P202           | Do not handle until all safety precautions have been read and understood.                                                        |
| P260           | Do not breathe dust/fume/gas/mist/vapors/spray.                                                                                  |
| P264           | Wash thoroughly after handling.                                                                                                  |
| P270           | Do not eat, drink or smoke when using this product.                                                                              |
| P272           | Contaminated work clothing must not be allowed out of the workplace.                                                             |
| P280           | Wear protective gloves/protective clothing/eye protection/face protection.                                                       |
| P302+P352      | If on skin: Wash with plenty of water.                                                                                           |
| P305+P351+P338 | If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308+P313      | IF exposed or concerned: Get medical advice/attention.                                                                           |

|           |                                                                                                     |
|-----------|-----------------------------------------------------------------------------------------------------|
| P321      | Specific treatment (see on this label).                                                             |
| P314      | Get medical advice/attention if you feel unwell.                                                    |
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention.                                    |
| P337+P313 | If eye irritation persists: Get medical advice/attention.                                           |
| P363      | Wash contaminated clothing before reuse.                                                            |
| P405      | Store locked up.                                                                                    |
| P501      | Dispose of contents/container in accordance with local/regional/national/international regulations. |

**Hazards not otherwise classified (HNOC)** No further relevant information available.

### 3 Composition/information on ingredients

#### Chemical characterization: Mixtures

##### Description:

Mixture of the substances listed below with nonhazardous additions. For the wording of the listed hazard statements refer to Section 16.

| Composition: |                                                                                                                                                      |       |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 14808-60-7   | Quartz                                                                                                                                               | <93%  |
| 14464-46-1   | Cristobalite<br>Carc. 1A, H350                                                                                                                       | <50%  |
| 68476-25-5   | Feldspar<br>Carc. 1A, H350                                                                                                                           | <50%  |
| 100-42-5     | Polyster Resin<br>Flam. Liq. 3, H226; Carc. 2, H351; Repr. 2, H361; STOT RE 1, H372; Acute<br>Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319 | 7-15% |
| 60676-86-0   | Glass & Mirrors <50%                                                                                                                                 | <50%  |
| 13463-67-7   | Titanium Dioxide                                                                                                                                     | <5%   |
| 2530-85-0    | Coupling Agent<br>Flam. Liq. 4, H227                                                                                                                 | <1%   |
| 3006-82-4    | Curing Agent<br>Self-react. C, H242; Skin Sens. 1, H317                                                                                              | <1%   |

## 4 First-aid measures

### Description of first aid measures

#### General description:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

#### After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:** Immediately wash with water and soap and rinse thoroughly.

#### After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**After swallowing:** If symptoms persist consult doctor.

**Most important symptoms and effects, both acute and delayed** No further relevant information available.

#### Indication of any immediate medical attention and special treatment needed

No further relevant information available.

## 5 Fire-fighting measures

### Suitable extinguishing agents:

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

### Special hazards arising from the substance or mixture:

During heating or in case of fire poisonous gases are produced.

### Special protective equipment and precautions for firefighters

**Protective equipment:** Mouth respiratory protective device.

## 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures:

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

### Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/ surface or ground water.

### Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

## 7 Handling and storage

### Precautions for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

For the general occupational hygienic measures refer to Section 8.

### Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

### Conditions for safe storage, including any incompatibilities

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep receptacle tightly sealed.

## 8 Exposure controls/personal protection

### Components with limit values that require monitoring at the workplace:

|                                 |                                                                                                   |                                                        |
|---------------------------------|---------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| 14808-60-7 Quartz (<93%)        |                                                                                                   |                                                        |
| PEL (USA)                       | Long-term value: 0.05* mg/m <sup>3</sup>                                                          | *resp. dust; 30mg/m <sup>3</sup> /%SiO <sub>2</sub> +2 |
| REL (USA)                       | Long-term value: 0.05* mg/m <sup>3</sup>                                                          | *respirable dust; See Pocket Guide App. A              |
| TLV (USA)                       | Long-term value: 0.025* mg/m <sup>3</sup>                                                         | *as respirable fraction                                |
| 14464-46-1 Cristobalite (<50%)  |                                                                                                   |                                                        |
| PEL (USA)                       | Long-term value: 0.05* mg/m <sup>3</sup>                                                          | *resp. dust; ½ value from resp.dust formulae Quartz    |
| REL (USA)                       | Long-term value: 0.05* mg/m <sup>3</sup>                                                          | *respirable dust; See Pocket Guide App. A              |
| TLV (USA)                       | Long-term value: 0.025* mg/m <sup>3</sup>                                                         | *as respirable fraction                                |
| 100-42-5 Polyester Resin(7-15%) |                                                                                                   |                                                        |
| PEL (USA)                       | Long-term value: 100 ppm Ceiling limit value: 200; 600* ppm *5-min peak in any 3 hrs              |                                                        |
| REL (USA)                       | Short-term value: 425 mg/m <sup>3</sup> , 100 ppm Long-term value: 215 mg/m <sup>3</sup> , 50 ppm |                                                        |
| TLV (USA)                       | Short-term value: 20 ppm Long-term value: 10 ppm BEI, OTO                                         |                                                        |

|                                   |                                                    |
|-----------------------------------|----------------------------------------------------|
| 60676-86-0 Glass & Mirrors(<50%)  |                                                    |
| PEL (USA)                         | 20mppcf or 80mg/m <sup>3</sup> /%SiO <sub>2</sub>  |
| TLV (USA)                         | TLV withdrawn                                      |
| 13463-67-7 Titanium Dioxide (<5%) |                                                    |
| PEL (USA)                         | Long-term value: 15* mg/m <sup>3</sup> *total dust |
| REL (USA)                         | See Pocket Guide App. A                            |
| TLV (USA)                         | Long-term value: 10 mg/m <sup>3</sup>              |

**Regulatory information**

PEL (USA): Guide to Occupational Exposure Values (OSHA PELs)

REL (USA): Guide to Occupational Exposure Values (NIOSH RELs)

TLV (USA): Guide to Occupational Exposure Values (ACGIH)

**Ingredients with biological limit values:**

|                          |                                                                                                                                                                                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 100-42-5 Polyester Resin |                                                                                                                                                                                                                                                     |
| BEI (USA)                | <p>400 mg/g creatinine<br/>Medium: urine<br/>Time: end of shift<br/>Parameter: Mandelic acid plus phenylglyoxylic acid (nonspecific)</p> <p>0.2 mg/L<br/>Medium: venous blood<br/>Time: end of shift<br/>Parameter: Styrene (semi-quantitative)</p> |

**Additional information:** The lists that were valid during the creation were used as basis.

**Based on the composition shown in Section 3, the following measures are suggested for occupational safety measure.**

**Appropriate engineering controls:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

See Section 7 for information about design of technical facilities.

**Personal protective equipment:**

**Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

**Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

|                                                                                                  |                                                                           |
|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| General Information<br>Appearance:<br>Form:<br>Color:<br>Odor:<br>Odor threshold:                | Solid<br>According to product specification<br>Odourless<br>Not available |
| pH-value:                                                                                        | Not available                                                             |
| Change in condition<br>Melting point/Freezing point:<br>Initial boiling point and boiling range: | Not available<br>Not available                                            |
| Flash point:                                                                                     | Not available                                                             |
| Flammability (solid, gaseous):                                                                   | Not available                                                             |
| Auto-Ignition temperature:                                                                       | Not available                                                             |
| Decomposition temperature:                                                                       | Not available                                                             |
| Explosion limits:<br>Lower:<br>Upper:                                                            | Not available<br>Not available                                            |
| Vapor pressure:                                                                                  | Not available                                                             |
| Density:<br>Relative density:<br>Vapor density:<br>Evaporation rate:                             | Not available<br>Not available<br>Not available<br>Not available          |
| Solubility in / Miscibility with Water:                                                          | Not available                                                             |
| Partition coefficient (n-octanol/water):                                                         | Not available                                                             |
| Viscosity:<br>Dynamic:<br>Kinematic:                                                             | Not available<br>Not available                                            |
| Other information                                                                                | No further relevant information available.                                |

## 10 Stability and reactivity

**Reactivity:** Data not available

**Chemical stability:** Data not available

**Possibility of hazardous reactions:** No dangerous reactions known.

**Conditions to avoid:** No further relevant information available.

**Incompatible materials:** No further relevant information available.

**Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

**Acute toxicity:**

|                                                      |          |                        |
|------------------------------------------------------|----------|------------------------|
| LD/LC50 values that are relevant for classification: |          |                        |
| 100-42-5 Polyester Resin                             |          |                        |
| Oral                                                 | LD50     | 5,000 mg/kg (rat)      |
| 13463-67-7 Titanium Dioxide                          |          |                        |
| Oral                                                 | LD50     | >20,000 mg/kg (rat)    |
| Dermal                                               | LD50     | >10,000 mg/kg (rabbit) |
| Inhalative                                           | LC50/4 h | >6.82 mg/l (rat)       |

**Skin corrosion/irritation:** Irritating effect possible.

**Serious eye damage/irritation:** Irritating effect.

**Respiratory or skin sensitization:** Sensitization possible through skin contact.

**Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

**Carcinogenic categories**

|                                                    |              |   |
|----------------------------------------------------|--------------|---|
| IARC (International Agency for Research on Cancer) |              |   |
| 14808-60-7                                         | Quartz       | 1 |
| 114464-46-1                                        | Cristobalite | 1 |

|                                                       |                  |    |
|-------------------------------------------------------|------------------|----|
| 100-42-5                                              | Polyster Resin   | 2B |
| 60676-86-0                                            | Glass & Mirrors  | 3  |
| 13463-67-7                                            | Titanium Dioxide | 2B |
| 100-42-5                                              | Polyster Resin   | 2B |
| NTP (National Toxicology Program)                     |                  |    |
| 14808-60-7                                            | Quartz           | K  |
| 14464-46-1                                            | Cristobalite     | K  |
| 100-42-5                                              | Polyster Resin   | R  |
| OSHA-Ca (Occupational Safety & Health Administration) |                  |    |
| None of the ingredients is listed.                    |                  |    |

## 12 Ecological information

### Toxicity

**Aquatic toxicity:** No further relevant information available.

**Persistence and degradability:** No further relevant information available.

**Bioaccumulative potential:** No further relevant information available.

**Mobility in soil:** No further relevant information available.

**Other adverse effects** No further relevant information available.

## 13 Disposal considerations

### Waste treatment methods

#### Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

#### Uncleaned packagings:

**Recommendation:** Disposal must be made according to official regulations.

**Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

|                                                                            |                |
|----------------------------------------------------------------------------|----------------|
| UN-Number<br>DOT, IMDG, IATA                                               | Not applicable |
| UN proper shipping name<br>DOT, IMDG, IATA                                 | Not applicable |
| Transport hazard class(es)<br>DOT, IMDG, IATA<br>Class<br>Label            | Not applicable |
| Packing group<br>DOT, IMDG, IATA                                           | Not applicable |
| Environmental hazards:<br>Marine pollutant:                                | No             |
| Special precautions for user                                               | Not applicable |
| Transport in bulk according to Annex II of<br>MARPOL73/78 and the IBC Code | Not applicable |
| UN "Model Regulation":                                                     | Void           |

## 15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Sara

|                                                 |                                       |
|-------------------------------------------------|---------------------------------------|
| Section 355 (extremely hazardous substances):   | None of the ingredients is listed.    |
| Section 313 (Specific toxic chemical listings): | 100-42-5 Polyester Resin              |
| TSCA (Toxic Substances Control Act):            | All components have the value ACTIVE. |

## Proposition 65

|                                                                  |                                                                                 |                                    |
|------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------------------|
| Chemicals known to cause cancer:                                 |                                                                                 |                                    |
| 14808-60-7<br>14464-46-1<br>100-42-5<br>13463-67-7               | Quartz<br>Cristobalite<br>Polyster Resin<br>Titanium Dioxide                    |                                    |
| Chemicals known to cause reproductive toxicity for females:      |                                                                                 | None of the ingredients is listed. |
| Chemicals known to cause reproductive toxicity for males:        |                                                                                 | None of the ingredients is listed. |
| Chemicals known to cause developmental toxicity:                 |                                                                                 | None of the ingredients is listed. |
| New Jersey Right-to-Know List:                                   |                                                                                 |                                    |
| 14808-60-7<br>14464-46-1<br>100-42-5<br>60676-86-0<br>13463-67-7 | Quartz<br>Cristobalite<br>Polyster Resin<br>Glass & Mirrors<br>Titanium Dioxide |                                    |
| New Jersey Special Hazardous Substance List:                     |                                                                                 |                                    |
| 14808-60-7<br>14464-46-1<br>100-42-5                             | Quartz<br>Cristobalite<br>Polyster Resin                                        | CA<br>CA<br>CA, F3, R2             |
| Pennsylvania Right-to-Know List:                                 |                                                                                 |                                    |
| 14808-60-7<br>14464-46-1<br>100-42-5<br>13463-67-7               | Quartz<br>Cristobalite<br>Polyster Resin<br>Titanium Dioxide                    |                                    |
| Pennsylvania Special Hazardous Substance List:                   |                                                                                 |                                    |
| 14808-60-7<br>14464-46-1<br>100-42-5<br>13463-67-7               | Quartz<br>Cristobalite<br>Polyster Resin<br>Titanium Dioxide                    |                                    |
| Pennsylvania Special Hazardous Substance List:                   |                                                                                 |                                    |
| 100-42-5                                                         | Polyster Resin                                                                  | E                                  |

### Carcinogen categories

|                                                                  |                  |                                    |
|------------------------------------------------------------------|------------------|------------------------------------|
| EPA (Environmental Protection Agency)                            |                  | None of the ingredients is listed. |
| TLV (Threshold Limit Value established by ACGIH)                 |                  |                                    |
| 14808-60-7                                                       | Quartz           | A2                                 |
| 14464-46-1                                                       | Cristobalite     | A2                                 |
| 100-42-5                                                         | Polyster Resin   | A4                                 |
| 13463-67-7                                                       | Titanium Dioxide | A4                                 |
| NIOSH-Ca (National Institute for Occupational Safety and Health) |                  |                                    |
| 14808-60-7                                                       | Quartz           |                                    |
| 14464-46-1                                                       | Cristobalite     |                                    |
| 13463-67-7                                                       | Titanium Dioxide |                                    |

## 16 Other information

### Relevant hazard statements

H226 Flammable liquid and vapor. H227 Combustible liquid.

H242 Heating may cause a fire. H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation. H350 May cause cancer.

H351 Suspected of causing cancer.

H361 Suspected of damaging fertility or the unborn child.

H372 Causes damage to the hearing organs through prolonged or repeated exposure.

### DISCLAIMER OF LIABILITY

The information contained herein was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. In addition, the contents of this Safety Data Sheet must not be interpreted as a recommendation to use any product in violation of the laws, safety practices or patents in force on any material or its use. It is the responsibility of the recipient of our product to check the corresponding rules and regulations. Under no circumstances does the data contained in this Safety Data Sheet constitute a guarantee of specific properties or create any contractual

relationship. This version is based on the format for the United States. Contact your local authority if an emergency occurs.

Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

Flam. Liq. 3: Flammable liquids – Category 3

Flam. Liq. 4: Flammable liquids – Category 4

Self-react. C: Self-reactive substances and mixtures – Type C/D

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 1A: Carcinogenicity – Category 1A

Carc. 2: Carcinogenicity – Category 2

Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

Receipt Form

Please complete this page and return it to:

TRIPLE L INTERNATIONAL LLC  
955 Sivert Drive, Wood Dale, IL 60191 USA

Receipt Form

The undersigned acknowledges receipt of the Linnstone Quartz Surfaces Product Manual.

Fabricator's Business Details:

Company Name:

Address:

Country:

Telephone Number:

Name:

Signature:

Date:

Please thoroughly review the Linnstone Quartz Surfaces Product Manual. Ensure that you adhere to all relevant local laws and regulations. We also advise consulting with your local occupational health professional and other experts regarding applicable laws, regulations, and recommended safety measures.





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