

Below are common questions regarding Squak Mountain Stone™. Don't see your question? Visit the [Contact](#) page to find a retailer near you who might be able to answer it for you. Some questions provide links for certain accessory products. Check with your local retailer to see if they already carry the product or a similar product. If not, click on the link to purchase the accessory product online.

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## INSTALLATION

**I have an undermount sink, do I need to seal the edges of the stone where the sink opening is?**

Yes. The factory-applied sealer does soak into the slabs, but not deep enough to protect the entire 1-1/2" depth. Your retailer will have 16 oz. and 8 oz. bottles of Super Shield Top Coat, the same sealer used in the factory that can be used to seal the edges. See the Top Coat technical sheet for product and application information.

**Do I have to fill in the holes on the edges?**

Do I have to fill in the holes on the edges?

This is a common question from contractors/installers and the answer is: That depends. TMI leaves the air holes on the edges exposed and unfilled because it gives the product a more "natural" look. Instead of looking like the stone was cast in a small factory in Washington state, the stone actually looks like it was formed from some great geological process. The holes and chipped out edges give the product the unique look it has that is unmatched in the industry and your client probably chose Squak Mountain Stone™ for that very reason. So, if you're an installer, be sure to ask your client if they want the holes to remain on the edges because we haven't developed a clever way for getting them back once they've been filled in. And yes, we have actually been asked to do this by saddened customers with "perfect" countertop edges!

### **Do I need a substrate under the stone?**

That depends. Plywood substrates are used to help distribute the weight of heavy materials across a larger surface area and are commonly used under granites and concrete. A substrate also provides some flexural support for stones across large spans. Squak Mountain Stone™ isn't as heavy as granite and concrete so its not likely to crush cabinets from its weight. However, like all cement and concrete materials, Squak Mountain Stone™ has lower flexural strength than granites and resin counters. Substrates are useful for supporting sink areas, particularly undermount sinks, where the sink can rest on the substrate instead of hanging from the slab (See "[Can I screw into Squak Mountain Stone™?](#)"). And a substrate can also be used for securing a dishwasher. However, efficiently placed bracing or brackets can achieve the same results.

### **How far can I cantilever the slab?**

TMI conducted its own in-house testing of cantilever distances. When the end of 72" slab was cantilevered out 12" it supported nearly 400 lbs before it cracked. The flexural strength of Squak Mountain Stone™ (at 28 days) is **350 psi** (determined by independent laboratory testing). TMI understands that each installation is unique, however it is recommended that cantilevers extend no greater than **12"** without additional supports, such as bracing or corbels. Always verify structural needs with an engineer for your installation.

### **How far can I span between supports?**

Through in-house testing, TMI found that Squak Mountain Stone could support nearly 700 lbs of dead weight when it was centered on a 30" span (distance between two supports.) This distance was tested because it reflects a typical free-span found in most kitchens, such as the space the dishwasher occupies. Several slabs were tested at the results were the same. Because each installation is unique, your engineer should always verify the use and installation with the flexural strength of Squak Mountain Stone™ to determine the correct placement of support. Our own testing confirms that for most residential kitchen applications (without people dancing on the countertops!) Squak Mountain Stone can span across as far as **30"** without any additional reinforcing or supports.

### **Do I have to cut it wet?**

Wet cutting of stone has two purposes. First, for really hard stones, such as granite, wet cutting keeps the saw blade cool, to prevent it from warping and making crooked cuts. Second, it keeps the dust from cutting down by trapping it in the water. Squak Mountain Stone™ isn't hard enough to warp saw blades, so it can be dry cut. However, and this is important, Squak Mountain Stone™ may contain respirable silica (RCS), which would be present when the material is being cut or sanded. RCS can be present in all sorts of materials, including granites, quartz glass, and concrete. Using water is the best form of protection from releasing RCS into the atmosphere where it can be breathed in. Before installing Squak Mountain Stone™ that has been cut with a wet saw, make sure its had a chance to dry out. If water is not going to be used, make sure to use proper NIOSH-approved respirator masks for protection from RCS. Use mechanical ventilation (like a vacuum at the dust source) and never dry sweep the dry dust. Use a dampened broom or rag or a vacuum.

**NOTE:** Independent analysis of Squak Mountain Stone has verified that the product contains less than 1% RCS, thanks largely

to the use of recycled crush glass instead of sand.

### **How do I deal with the joints in the counters?**

As you may have noticed, each slab of Squak Mountain Stone™ is unique. Unlike mass-manufactured materials or some granites, each slab will have its own character and texture. This means that despite your best efforts to make the physical seam between slabs as small as possible, [you will always be able to tell that there is a transition](#). With that said, here are a couple of rules regarding joints in Squak Mountain Stone™:

1. ALWAYS place joints over supports, such as sides of cabinets. If that's not possible, then plan on placing bracing of some sort to fully support the joint. This will keep the joint from deflecting. If possible, plan out your kitchen cabinets with the dimensions of Squak Mountain Stone™ slabs. If your cabinets are already there, then plan out your layout of the joints to land where you already have supports in place. If you can't avoid joints falling in the center of a drawer or similar condition, consider installing Squak Mountain Stone™ with a plywood substrate for support.
2. Butt the slabs together at the joint as close and as tight as possible. Use a filler between the joints, like silicone, to provide a watertight seal. Depending on your look and the color you've chosen, you might even use this as the entire joint filler. If you want to use a different colored material for the joint, you can use sanded or unsanded grouts, that are pre-colored and require that you mix them with water. Or you can use a newer product that is a "grout caulk". This product comes in a tube, is pre-colored to match most stones, and squeezes out like a bathroom caulk. It's easy to use because it doesn't require any mixing. Both types of grout are found in tile or home improvement stores and are designed to be durable and to not shrink.

### **I bought several slabs and noticed some variation in the thickness of one slab from the others. Why is that?**

Squak Mountain Stone™ is completely handmade. The molds are handmade and the slabs are hand-finished during and after the casting process. And since humans aren't perfect, most things they touch aren't either. Mother Nature has a way of getting involved as well. On warm days, the slabs may shrink more, even with diligent watering on our part and on cold days, the slabs shrink very little. It's important to remember that the sizes provided are *nominal* and some variation, plus or minus, is possible, so verifying dimensions and measurements is always good practice.

### **Can I screw into Squak Mountain Stone™?**

Yes, but with special considerations. Squak Mountain Stone™ has a core like brick, so if screws are used, they need to be used with a molly or shield. The molly should be embedded and held with some epoxy to make sure it has good, strong contact with the stone.

**IMPORTANT:** Some undermount sinks are installed by hanging the sink from the countertop above with screws. TMI does not recommend this type of installation for Squak Mountain Stone™. Undermount sinks should be supported by bracing or a substrate and not supported by the slab itself.

### **Do I need to protect the sealed surface during installation? What happens if I scratch it?**

You should always protect the countertop from abrasions during the installation process with cardboard or butcher paper. The sealer is not scratch or abrasion resistant and can become damaged and scratched from the use of saws and sanders. If the sealer has been damaged, use a fine grit sanding pad or synthetic steel wool to buff the abrasion out. And then recoat the area with Top Coat to repair and reseal the damaged area.

## **USE & MAINTENANCE**

### **Is Squak Mountain Stone™ stain-proof?**

Squak Mountain Stone™ has been improved with a stain-*resistant* sealing process. This first part is an oil-resistant sealer and the Top Coat provides additional resistance to grease and food stains, as well as acid etching. This is not the same as stain-*proof*. Stain-resistance means that you have time to clean off liquids and items that may leave a stain. It also means that if a stain does appear to form, that it will be easier to clean off and remove with mild cleaners after a few cleanings. Stain-proof means that nothing will leave a mark, ever. Because the sealer on Squak Mountain Stone™ is an acrylic, it will eventually wear away, which will reduce the effectiveness of the counters ability to resist stains. To maintain the stain-resistance of the slabs, use soft sponges and mild cleaners (usually liquid dish soap will work), clean off all spills as soon as possible, and if the sealer appears to be wearing down (the counter underneath gets really dark as soon as water or a liquid comes in contact with it), the re-coat the counter with a fine layer of Top Coat, until the counter no longer turns dark. The sealer will resist staining from basic kitchen liquids and foods for up to 24 hours but oils and acids should always be wiped up right away.

### **Can I put something hot the stone?**

No. The acrylic finish on top will melt, just like a plastic countertop would. Always use a trivet for hot pans and dishes. If you happen to damage the countertop sealer from heat, refer to the [Maintenance Technical Bulletin](#) for repair tips.

### **How long will the sealer last?**

The Top Coat sealer is an acrylic, so repeated use of abrasives, abrasive cleaning pads, heavy cutting and scraping, etc, will erode the sealer off in about 1-2 years. Using soft sponges with mild soaps, using cutting boards and trivets, and cleaning up harsh chemicals, such as acids, right away, should leave you with a surface that will last 5-10 years before major maintenance is required. Spot maintenance and sealer repair may be needed for specific reasons, such as accidents.

**NOTE:** Keep in mind that Squak Mountain Stone™ is new material without the extensive performance history of other conventional construction materials and these claims represent our best conclusions regarding predicted performance of the sealer with our product.

### **What will "patina" on my countertops really look like?**

Good question! "Patina" is the evidence of your life in your kitchen or bath. It's the rings from the ritual morning cups of coffee left on the counters all day long while you were at work. It's knife marks from the daily preparation of peanut butter & jelly sandwiches for your son's lunch. It's the mottled splattering of dark spots near the stove from the Sunday morning breakfasts you have with your family. And it can be the broken edges on the inside of the undermount sink from when your pot of spaghetti made contact with the side. The patina can happen gradually or all at once, like when you celebrate the completion of your newly remodeled kitchen with your friends and family and serve them glasses of [red wine](#). The character your countertops develop over time will be a reflection of your own character. And Squak Mountain Stone™, with its "beauty from imperfection" and "beauty from age," provides the best surface to record your life in your kitchen and bath.

**NOTE:** With the new two-part Super Shield sealing system, patina development becomes less of an issue for many customers. But because the sealer can be worn down or off in several years, if a customer does not reseal the product when its worn, patina can develop. See ["How long will the sealer last?"](#)

### **Can I cut on Squak Mountain Stone™?**

You shouldn't. Squak Mountain Stone™ is very hard and will dull your knives if you make it a practice of cutting on the surface. And if you were to repeatedly cut in the same area of your countertop, you will likely start to develop cut marks and nicks in the stone surface.

**NOTE:** The sealer is NOT scratch, abrasion or scuff resistant. See ["Do I need to protect the sealed surface during installation? What happens if I scratch it?"](#) for information on how to repair a scratch. Also refer to the [Maintenance Technical Bulletin](#).

### **Will the sealer protect my counters from acid etching?**

Yes, the sealer does provide a barrier against etching damage from basic kitchen acids (citrus juices and vinegars) BUT this protection is limited and may be short lived. Meaning, you must always wipe up acidic materials from the counters as soon as possible. Acids actually damage the sealer itself, so if left for a long period of time, the acid may eventually wear down to the counter, causing permanent damage. You should test the sealer where acids were spilled to make sure its in tact. Wipe the area down with a wet sponge. If the area turns dark right away, that means the acid has degraded the area. Recoat this area with a light mist of Top Coat to repair the area. If an acid has damaged the countertop, refer to the [Maintenance Technical Bulletin](#) for additional information.

## **MANUFACTURING**

### **I've heard that fly-ash contains lead. Why are you using it in your countertops?**

"Fly-ash" is a term that tends to get used to describe a variety of combustion by-products. The type of fly-ash used in Squak Mountain Stone™ is [ASTM Class F](#) and comes from naturally occurring coal burned in coal-fired electrical generation plants. This type fly-ash is primarily glass with small amounts of silica and is not listed as a carcinogen. See ["Do I have to cut it wet?"](#) for information about respirable silica.

### **I want a custom size. What's the largest single slab you can cast?**

First, before ordering a custom slab "as big as you can make it!", make sure you can fit it into your house. Just because you'd like a 10'-0" long slab doesn't mean it will fit in the elevator up to your office or through your back door, around the corner, and down the hall to the kitchen.

With that said, the longest dimension TMI will do is 96" or 8'-0". TMI only casts 1-1/2" thick slabs, so the maximum surface area of any one piece is 17.5 square feet. TMI can do some shapes as well, such as [curved edges](#). Always contact your local retailer to work on a custom design for your project. Additional charges do apply on custom sizes.

### **What do you have limited sizes for countertops?**

Another good question we get all the time. We understand that our standard sizes can be limiting for folks and sometimes the sizes available eliminate people from purchasing Squak Mountain Stone™ altogether. We have, however, a very good reason for this. TMI has taken a page from Henry Ford's philosophy of manufacturing: "You can have any color you want as long as its black!" Henry Ford made the vehicle available to the masses by standardizing on the shape and color of the Model T, which helped him reducing the expenses in making the car. Because TMI focuses on maintaining a hand-made quality that gives Squak Mountain Stone its unique looks and character, we've also had to develop strategies that keep the product from becoming too costly for the masses. It's more important to TMI that we make a product that can be financially available to as many people as possible than to develop a high-end, fully-customized product that would only be an option to only a few. This means creating standard sizes and having a small base of color options to save on cost and put the time and energy into making the product uniquely beautiful. This is the same reason for not doing sink and faucet knock-outs, etc.

Plus, standard sizes saves on materials and drastically reduces waste. We are able to use high-quality, long-lasting materials for molds that are more expensive initially but have yet to be replaced. This is an example of how a good economic business decision can also be a good environmental decision!

### **I found a tiny piece of paper on the surface of my slab and could actually read a few words. Is this normal?**

Yes! TMI does not chemically process the mixed waste paper before mixing it into Squak Mountain Stone™. This means that occasionally paper (white or colored) and words can be seen in the product. We can't control how much or how little this

happens. In fact, one slab TMI manufactured actually had a small piece of paper on the surface near the edge that read "Do something beautiful." We wish we could take credit for that happening the way it did but we can't. And although we do respect freedom of speech, we will try to make sure a curse word doesn't end up on your kitchen or bathroom countertop for your kids to read!

## MISCELLANEOUS

### Why do I have to pay for samples?

Most people, especially designers, are used to getting free samples for their project or libraries and are disappointed to see that they have to purchase the samples for Squak Mountain Stone™. Although this practice is rare, it is not unheard of for manufacturers to charge for samples. Please let us explain why we do it. Each and every Squak Mountain Stone™ product is hand-made and hand finished, including the samples. TMI doesn't have large machines producing hundreds of square feet of countertops every day where a switch can be thrown and thousands of little tiles can be made. Further the product is so unique that trying to distill it down to a 3"x3" tile doesn't fully communicate its characteristics. For some people, seeing a 3"x3" tile might be fine but TMI doesn't just want customers to see the color of Squak Mountain Stone™ but also its characteristics, such as color variation, texture, and yes, even the holes and chipped out edges. A small tile will never tell that story. And believe it or not, some people actually don't like some of Squak Mountain Stone™'s stone unique features. If they picked the material from a small tile sample and then received the full-size product, they might be disappointed. And we don't want that.

So, samples are available in 4"x6"x3/4" thick tiles, to show primarily the color & surface characteristics. And for our professional specifiers, a larger sample kit is available that includes 4"x6" color tiles, brochures and a 8"x10"x1-1/2" thick "mini-slab" that is a fairly good representation of a full-sized slab. The samples are hand-finished using the same process that we use on the full-size product so that customers are getting a "real" sample of the material. Because of the effort and size, it's quite costly for TMI to produce samples. When this cost is coupled with the fact that we receive many requests for samples and in most cases, don't receive a subsequent order, we are forced to charge for the samples. Sorry.

Samples may be purchased or checked out from the [Environmental Home Center](#).

### Can I use Squak Mountain Stone™ outdoors?

To date, pieces of Squak Mountain Stone™ have been left in buckets of water for several weeks, left outside in the rain for days on end, etc. but nothing long enough, yet, to help TMI get a picture of long-term performance. TMI found in all of those instances that some paper got soft, and the material, unsealed, absorbs as much water as it can. But the stones never softened or broke apart.

With paper being a large component in the material, one must be concerned of the paper's ability to decompose. Generally, for paper to decompose, it needs access to oxygen, water and sunlight. These elements spurn on the bacteria needed to break down the paper. Paper that is confined within the center of the stone is not getting all of these components and therefore is not likely to break down fast, if at all (Think of paper in landfills that have not decomposed even after decades.) Plus the paper does have some of the stone paste impregnated in it as a result of mixing which can also limit decomposition. Paper on or near the surface, however, may soften and "fall" out of the material, leaving the stone behind. Since the paper starts out as very small pieces, you would not see large areas or pockets of paper pulling out or away from the material.

Now, another consideration for a material left in the outdoor environment is the stone itself. Even concrete can crack under exposures to water and intense heat (from sun). Cracking may occur and this will provide access for air, sunlight & water to reach other parts of the stone. Also, freeze-thaw conditions can wreak havoc on masonry materials. Unlike masonry pavers or concrete masonry units, Squak Mountain Stone™ has not been purposefully designed with entrained air pockets for freeze-thaw conditions.

## Tiger Mountain Innovations

If you choose to use Squak Mountain Stone™ in an outdoor application, with little protection from the environment (meaning uncovered by structures or tarps), then treat it like "wood" rather than stone. With that said, we don't have any information to let us know how it will perform outdoors over a period of several years, so TMI can't make a guarantee of performance for Squak Mountain Stone™ in outdoor conditions.

### **Is there a warranty for Squak Mountain Stone™?**

Yes, in simple terms, TMI warrants the Purchaser that the product will be free from manufacturing defects for 30 days after purchase. If your contractor purchased the materials, they are the ones that need make a warranty claim with TMI on your behalf. TMI has a quality control process that screens the materials at several points during the manufacturing process to ensure that products that have defects never even make it to the retailer. See the [Disclaimers and Limited Warranty](#) for more information. TMI does not warrant against color and surface variations, staining, scratching or etching, size variation and crazing.