

Real Stone® Thin Veneer

Horizontal (flooring) Installation Recommendations Interior and Exterior



INTRODUCTION

This installation manual is intended to provide guidelines for the contractor, installer, or architect to assist them in understanding the basic installation recommendations in order to achieve the highest quality horizontal installation using Real Stone® Thin Veneer. It is based on installation practices that are unique to stone. Like all construction processes there are many variables not discussed here and these must be taken into consideration. As a general rule, Real Stone® products should be installed by a tile or masonry person that is experienced with similar materials. If you are a “do it your self” individual, please seek the assistance or advice from a professional to help you through the process.

**A Beautifully installed
Real Stone® Thin Veneer
Floor**



Floor Base –

It is important that the floor base be strong enough to carry the weight and rigid enough to prevent flexing of the grouted joints.

- **Concrete floor**
Concrete is the best base to apply Real Stone® Thin Veneer. Usually all that is required is to clean the floor with a concrete cleaner available in most Tile and flooring stores then install the Thin Veneer as instructed.
- **Wood floor**
Thin Veneer is approximately twice as heavy as ceramic tile when installed and will have larger grout lines to achieve the rustic stone look. To properly install Real Stone on wood floors it is recommended to install a layer of cement board on the wood floor first then install the Thin Veneer on top of that. Keep in mind that the wood floor must be designed to be strong enough to carry the weight and rigid enough to prevent flexing of the grouted joints. Please consult a building professional to see if your floor design is adequate.

Step 1 – Initial stone layout

Start by laying out your stone pattern on the floor base before attempting to set any stone. You can arrange the entire floor or smaller portions, but it is important to have at least a few square feet set out and fit nicely ahead of the person doing the setting. This part of the process can be time consuming as you pick and choose between different shape stones to find the “perfect” fit and color variation you are looking for. For best results you should try to keep the spacing between stones consistent. A range of spacing between stones of ½” to 1-½” seems to work best. Try to use various size stones equally throughout the floor.



One method used to make a clean line next to a wall or a dividing floor is to trim an edge on the Real Stone Thin Veneer. You can see in this example how the stone was trimmed and set ¼” from the wood floor adjacent to it. Fill the ¼” space with flexible caulking prior to grouting to accommodate movement from the adjoining floor.



Real Stone Thin Veneer is commonly cut on a tile saw as shown. This cut was made in about 25 seconds. Tile saws can be rented from most full service flooring shops.



OPTION:

There usually are a small percentage of the stones that have a ridge where the saw blade finishes the cut at the factory. On the few stones that have this ridge it is only on one side so simply using the other side of the stone will take care of the problem. If you really like the color or fit of a particular side then this ridge can be easily ground off with a wet or dry hand grinder with a 30 grit diamond wheel. It is recommended to do this before the stone is set, but it can be completed after the installation as well. The Diamond wheel attachment costs less than \$50.00 and will fit most hand grinders. If you rent a wet grinder be sure to follow safety instructions including using a ground fault outlet for power.



Step 2 – preparing the mix to set the stone

There are numerous products on the market to properly set the Real Stone thin veneer.

The generic name is referred to as “Thin Set Mortar”. The preferred brand is made by TEC and called **Super Flex Thin Set**. Your professional flooring store will carry an equivalent product.

Use a drill and a mixing attachment as shown in a 5 gallon pail. Be sure to mix thoroughly to the consistency of peanut butter. It must be thick enough so it does not flow, but thin enough to stick and adhere easily.



Step 3 – Apply thin set mortar to the back of stone

PLEASE READ CAREFULLY!!

This is the step that most often gets done incorrectly.

Apply a properly mixed thin set mortar mixture directly the stone. This is typically 1/2” thick or more. This must be thick enough to completely squish out and support the entire under surface of the stone.



Step 4 – Set the stone in predetermined position and level

Carefully press the stone into the correct position. You must level the stone surface with all adjacent stones that have been set by pushing down and allowing excess thin set to squish out. This is why you apply at least ½” of thin set mortar to the stone and allow for a complete squish out all around the stone during the leveling process.

Important: If you push the stone too low you must remove the stone and apply additional thin set mortar and re-apply. The idea is to have a “full” bed of thin set under the stone when all adjacent stone surfaces are level.

NOTE: The squish out must stay below the top of the stone surface to allow room for grout.



Step 5 – Allow set stones to fully cure

You can see the stones properly set with squish out and leveling completed. The set stones will have to fully cure per the thin set mortar instructions (usually 12 hours) before continuing on with step 6.



Step 6 – wash stone

You must carefully inspect stone surfaces for any thin set material and clean by scraping or use a hand wire brush. Then wipe stone surface with clean damp sponge to remove dust.



Step 7 – Mix Grout

The grout mix must be able to flow and forced into and around the grout spacing and fill 100% of remaining voids. (The grout is mixed slightly thinner than the thin set used to set the stone.) The average grout mix is the consistency of honey.

Grout must be a premium grade sanded Portland cement type grout. This is not concrete, but specially formulated grout. Your professional flooring store will carry an equivalent product.

The grout must be mixed according to manufacturers specifications. It works best to use a mixing attachment on an electric drill.



IMPORTANT: Grout must be fully mixed with no clumps of powder left.

NOTE: Grout can be purchased from numerous manufacturers and is generally chosen based on the appearance desired. The variables considered are typically color of grout and size of sand used.

Two options of many options available:

[Accucolor® Premium Sanded Grout from TEC](#) Produce a fine sanded look with multiple colors available

[STONE VENEER JOINT GROUT from SPEC MIX®](#) Produce a coarser mortar sand look often associated with a rustic installation

Step 8 – Pour Grout

After the grout is properly mixed it can be poured from the mixing bucket directly to the area being grouted.

IMPORTANT: When doing the grouting process it is advisable to work in manageable areas. If you are not a professional it is recommended to do no more than 36 square feet at a time. As you gain experience or if you have additional people to assist you can do larger areas. The floor is grouted in sections and may take more than one day to complete.



Step 9 – Spreading and troweling the grout mix

Spread the grout over the face of the stone forcing the mix into the spacing between the set stones. A special grout trowel is used that has a semi-flexible soft face. This will allow it to follow slight changes in surface while leveling off the grout area so it is level with all adjacent stones. You can purchase grout trowels from any tile retailer.



Step 10 – As grout mixture begins drying cleanup begins

Temperature and humidity will affect drying time but you can expect to wait about 15-20 minutes until cleanup begins. It is important to watch closely so you can begin cleanup when grout just starts to set.

You can see that the grout mix is starting to dry in the thin spots on the stone. You will need a special grout sponge and a bucket of clean water. Begin by applying a damp sponge to stone face and rub lightly to soften and remove excess grout mix from the surface of the stone.

You will need to rinse your sponge often so it will pick up excess grout from the stone face.

Be careful not to remove any grout from the actual space between the stones.

The process of finishing the grout is time consuming and fussy and it will take some practice.



Step 11 – Final clean up and grout smoothing

This process requires repeated cleaning of the stone and smoothing of grout areas as the grout gets harder. Be extremely careful not to pull grout out and only smooth it lightly with sponge. The final cleaning and grout smoothing is usually about 1-2 hour after initial pour depending on temperature. Keep at it as the grout can seem easy to work with and then harden quickly.

Your goal is to have a smooth grout line that is at the same level or just slightly lower than surrounding stone.



Step 12 – Final sealer application

The final look is up to you. It is advised to apply a sealer / enhancer to the floor over the grout and stone to even out the grout colorations and give the floor a complete protective coating. This will also make fool clean up easier.

This sealer can be applied as needed to maintain the desired sheen. High traffic areas may need a quick rub down twice a year and low traffic areas can often go years between coats.



NOTES:
