

THIN VENEER / SPECIFICATION

Natural Stone Characteristics & Pre-Installation Review

Thin Veneer is a product of nature. Variations in color, veining, texture, and surface detail are inherent to natural stone and should be expected. Differences will occur from piece to piece and between shipments. These variations are not defects but part of the material’s character.

Product samples, photography, and showroom displays are intended to provide a general representation only. The material supplied may differ in tone, movement, and marking.

All material should be unpacked and inspected before installation. Blending stone from multiple pallets during installation is recommended to achieve a balanced distribution of color and variation. Once installed, the material is considered acceptable.

Minor edge chipping, surface irregularities, and natural clefing are typical of stone products and do not affect performance. Any concerns regarding excessive damage or dimensional irregularities must be reported before installation.

Proper planning, layout, and review before setting will help ensure the finished result meets design expectations.

Weather & Installation Conditions

Installation should proceed only under suitable weather conditions. Avoid setting stones during rain, snow, freezing temperatures, or when such conditions are forecasted.

High temperatures, direct sun exposure, or hot substrate surfaces may accelerate mortar curing and reduce bond strength. In warm conditions, take appropriate precautions, such as working in shaded areas and following the mortar manufacturer’s recommendations.

Do not install when substrate or ambient temperatures fall below manufacturer-specified limits for setting materials.

Thermal Exposure

Natural stone performs well across a wide range of climates; however, areas subject to sudden and extreme temperature changes may require additional consideration. Rapid shifts between freezing and warm conditions can place stress on any exterior building material.

When installing in regions with severe seasonal variation or frequent freeze–thaw cycles, appropriate substrate preparation, drainage, and setting materials are essential. Always follow recognized building practices and local code requirements for exterior stone applications.

For project-specific questions, consult your design professional or contractor before installation.

Fire & Heat Applications

Natural stone is generally regarded as non-combustible and is commonly used in exterior cladding and fireplace surrounds.

When installing near fireplaces or heat-producing elements, stone should not be exposed to direct flame or excessive heat. Installation must comply with appliance manufacturer requirements, building codes, and clearance specifications.

For interior firebox applications or areas subject to continuous high heat, confirm suitability with the appropriate design professional before proceeding.

Waterproofing / Moisture Management

A properly designed and executed moisture management system is required for all Thin Veneer installations. The wall assembly must prevent water intrusion and allow for appropriate drainage in accordance with local building codes and recognized industry standards.

Exterior framed construction shall include a code-compliant water-resistive barrier (WRB), corrosion-resistant lath, flashing at all penetrations and terminations, and a weep screed where required. All transitions, openings, and horizontal terminations must be properly detailed to prevent water infiltration.

For installations over concrete or masonry substrates exposed to moisture, a compatible waterproofing or crack-isolation membrane may be required before stone placement. Membrane selection and installation must follow the manufacturer’s written instructions.

Top courses, copings, sills, and other horizontal surfaces must be sealed, capped, and sloped to shed water away from the wall assembly. Sealants should be appropriate for exterior use and maintained as part of routine building care.

Improper moisture control can result in efflorescence, staining, bond failure, or substrate deterioration. The installer is responsible for verifying that moisture management components are correctly specified and installed before veneer application.

Cleaning, Sealing & Setting Materials

Pre-Sealing & Sealing Considerations

Pre-sealing before installation may be considered depending on the stone type, color, porosity, and project conditions. Where pre-sealing is applied, ensure compatibility between the sealer and the selected mortar or adhesive. Sealers should not interfere with bond performance.

In installations exposed to elevated moisture conditions, including coastal environments, water features, or areas subject to frequent saturation, serving all sides of the stone may be appropriate. The type of sealer (penetrating, enhancing, or consolidating) should be selected based on the

specific stone characteristics and environmental exposure.

Sealants and sealers do not replace proper moisture management or waterproofing systems.

For specific project recommendations, consult the sealer manufacturer. Product selection and application remain the responsibility of the installer.

Adhesive / Mortar Selection

Use setting materials suitable for adhered natural stone veneer applications and compliant with applicable ANSI standards. Polymer-modified cement-based mortars are commonly used; however, fast-setting, epoxy, or polyurethane adhesives may be required depending on substrate conditions and project requirements.

Adhesive selection must consider substrate type, environmental exposure, stone weight, and installation orientation. Always follow the adhesive manufacturer’s written instructions.

Grouting & Sealants

Where grouted joints are specified, use a high-quality grout suitable for natural stone applications. Neutral-curing silicone or equivalent sealants should be used at movement joints, changes in plane, and terminations to prevent migratory staining. Sealant color should be coordinated with grout, where applicable.

Cutting & Handling

Cutting should be performed using a wet saw with an appropriate diamond blade to minimize dust and reduce edge chipping. Stones should be cleaned promptly after cutting to prevent residue from drying on the surface.

Crystalline Silica Notice

Natural stone may contain crystalline silica. Mechanical processing, such as cutting, grinding, or drilling, can generate respirable silica dust.

Prolonged or high-level exposure to respirable crystalline silica may cause serious health conditions, including silicosis and other respiratory diseases.

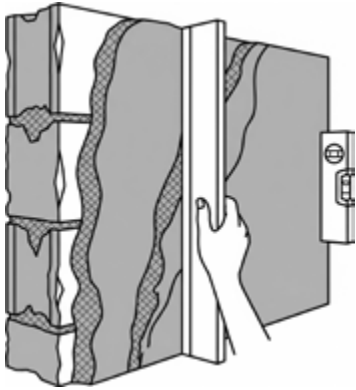
Appropriate dust control measures, including wet cutting, local exhaust ventilation, and personal protective equipment (PPE), must be used in accordance with OSHA regulations and applicable workplace safety standards.

Workplace safety compliance is the responsibility of the installer or contractor.

Installation Guidelines

Installation methods may vary depending on project conditions, substrate type, exposure, and local code requirements. A mock-up or test area is recommended before full installation to confirm layout, bonding method, and overall appearance.

1. Substrate Requirements



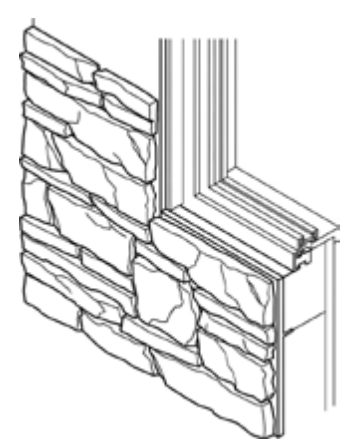
The supporting structure must be sound, stable, and suitable for adhered natural stone veneer. Structural adequacy is the responsibility of the design professional.

Concrete, masonry, or block substrates must be plumb, level, and within industry tolerances. Surfaces must be clean, dry, and free of dust, paint, curing compounds, release agents, oils, or other contaminants that may inhibit the bond.

New concrete must be fully cured before installation. Existing concrete surfaces should be mechanically prepared where necessary to achieve a proper bonding profile.

Where substrates are uneven or out of tolerance, a properly bonded render or leveling coat may be required before stone installation.

2. Movement & Control Joints



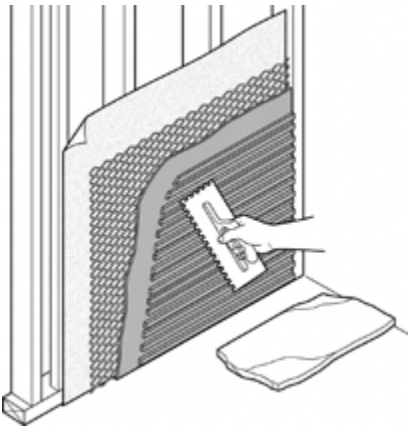
Movement joints must be honored throughout the stone veneer assembly.

Provide joints:

- Directly over substrate movement joints
- At changes in substrate material
- At changes in plane (inside corners)
- At penetrations or structural interruptions
- At regular intervals in accordance with industry standards

Joint spacing and detailing must comply with architectural drawings, structural requirements, and applicable building codes.

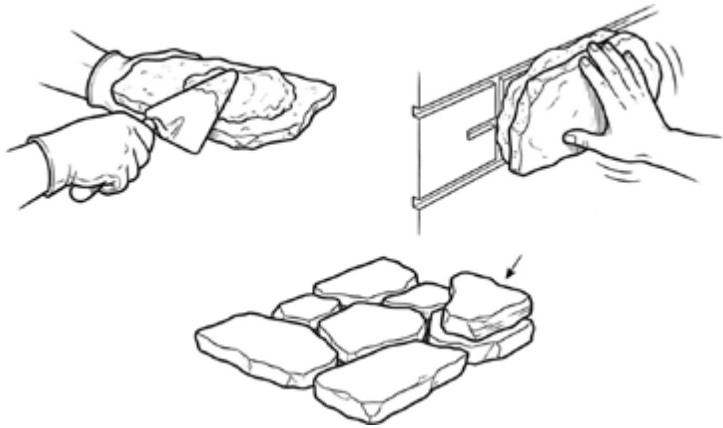
3. Render / Scratch Coat (Where required)



Where installation is over framed wall systems, a code-compliant water-resistive barrier, metal lath, and scratch coat must be installed before stone placement.

Render or scratch coats must be properly bonded, cured, and finished to a true and even surface suitable for adhered veneer. Stone installation must not proceed until the base coat has adequately cured.

4. Setting the Stone



Dry-lay and blend material from multiple boxes or pallets before installation to achieve balanced color variation.

Before setting:

- Ensure the back of each stone is clean and free of dust.
- Use an appropriate notched trowel to apply mortar to the substrate.
- Back-butter each stone to promote full coverage.

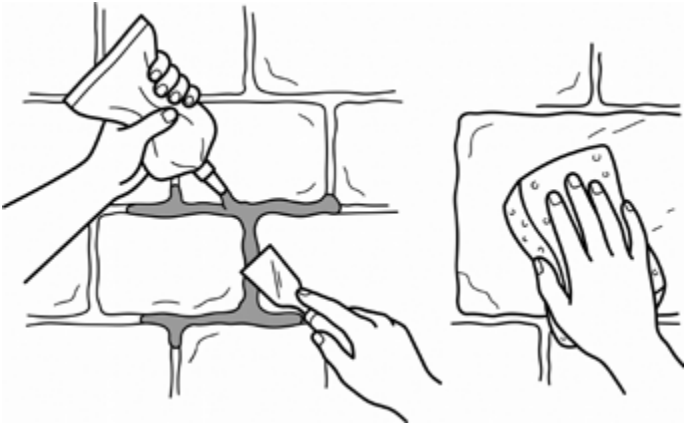
Press and move the stone firmly into place to achieve full contact. Mortar should not be allowed to skin over before placement.

Periodically remove and inspect a set piece to confirm adequate coverage. Adjust technique if necessary.

Do not disturb the installed stone for a minimum of 24 hours or as recommended by the mortar manufacturer.

Vertical installations should progress in controlled lifts to prevent slippage or overloading of uncured mortar.

5. Joint Treatment – Grouted or Dry-Stack Applications



Thin Veneer may be installed with grouted joints or as a dry-stack (tight-fit) application, depending on the desired aesthetic and project specifications.

For grouted installations:

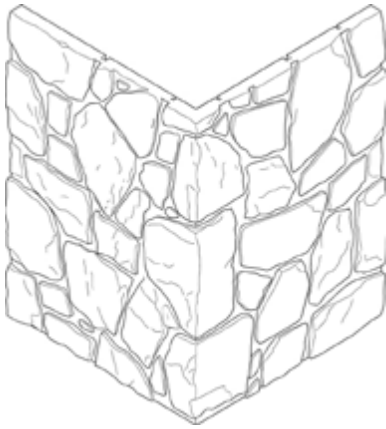
- Allow setting mortar to sufficiently cure before grouting.
- Pack joints fully to the depth of the stone to eliminate voids.
- Tool joints to the desired finish.
- Remove excess grout from the stone surface before it hardens to prevent staining.

For dry-stack installations:

- Stones should be fitted tightly with consistent joint spacing.
- Ensure adequate mortar coverage and proper support behind each piece.
- Careful layout planning is essential to maintain alignment and structural integrity.

Final cleaning should be performed with clean water and appropriate sponges. Avoid excessive water during cleanup.

6. Corners & Terminations



Corner pieces should be installed to maintain proper interlock and visual continuity. Stone should not appear unsupported or “floating” at edges.

Terminations, caps, and transitions must be properly detailed to ensure both structural support and moisture protection.

Maintenance

Natural stone is a durable material that will mature over time. Subtle changes in tone, surface character, and patina are normal and contribute to its authenticity. Proper care will help preserve appearance and long-term performance.

Maintenance requirements vary depending on stone type, installation method, climate, and level of use.

Routine Cleaning

Regular cleaning should be performed using a pH-neutral cleaner formulated for natural stone. Harsh, acidic, or highly alkaline cleaners may damage the stone surface, grout, or surrounding materials.

Remove dirt and debris promptly to prevent surface buildup and potential staining. Use soft brushes, cloths, or non-abrasive pads. Avoid metal tools or abrasive cleaning methods.

High-pressure washing is not recommended, as it may damage mortar joints, surface texture, or the stone itself.

Periodic Professional Maintenance

In high-traffic or exterior environments, periodic professional cleaning may be beneficial. Deep cleaning can remove accumulated residues and restore surface appearance.

Cleaning methods and products should be selected based on the specific stone and site conditions.

Sealer Maintenance

If a penetrating sealer has been applied, it will require reapplication over time. The frequency depends on exposure, usage, and environmental conditions.

Sealers reduce absorption but do not make the stone stain-proof. Performance should be evaluated periodically, and reapplication should be performed as needed in accordance with the sealer manufacturer’s instructions.

Efflorescence

Efflorescence may appear as a white, powdery residue on the surface of stone or mortar joints. It is caused by the migration of soluble salts carried by moisture through the substrate or setting materials.

While not structurally harmful, efflorescence may indicate the presence of moisture within the wall assembly. Addressing the underlying source of moisture is essential to prevent recurrence.

Surface deposits can typically be removed with clean water and a stiff nylon brush after the installation has fully cured. Allow the area to dry completely before applying any sealers.

Staining & Discoloration

Staining may occur from environmental exposure, improper cleaning products, or contact with foreign materials. Prompt removal of spills and routine maintenance will minimize risk.

Corrective treatments should be selected based on the type of stain and the stone involved. When in doubt, consult a qualified stone care professional before applying specialty cleaners or chemical treatments.