



STONE DESIGN MANUFACTURED STONE VENEER INSTALLATION

Preparation

Tools and material needed

A critical tool for installing Stone Design Manufactured Stone Veneer is a brick/tile wet saw with a tilting blade for angled cuts, such as 45 degrees, to form mitered corners or other angled pieces if necessary. An angle grinder and diamond drill bits may be used for cutting stone to fit around small protrusions in the wall such as pipes, steelwork etc. Additionally, the following tools will also be required for installing Stone Design Manufactured Stone Veneer products: a steel trowel, notched trowel, scraper, stiff wire brush, masonry brush, large sponge, and polymer modified tile thin set mortar. For our white and beige Manufactured Stone Veneers we recommend a white mortar, to prevent stains on the face of the stone.

Substrate Preparation

Before jumping into the installation right away, it is important to plan and measure the wall(s) you are working on extensively. Start by planning your way around obstacles like windows and outlets, decide on the use of a grout line, the laying pattern, and in what direction you want to wrap corners.

Stone Design products may be applied over any prepared masonry / cementitious surface such as cement board, concrete block, brick, cement, or lathe & scratch coat combination. **STONE DESIGN MANUFACTURED STONE VENEER PRODUCTS SHOULD NOT BE INSTALLED DIRECTLY OVER DRYWALL OR SHEETROCK.** Painted surfaces must be sandblasted, or otherwise stripped of paint before installing and if a new wall needs to be built, or layer added to an existing wall, the most suitable product for these purposes is cement board.

The substrate and wall should be structurally capable of supporting the weight of the product (7 lbs. per sq. ft.). Fibrous cement board should be securely fixed to the wall's framework. We suggest that the board should be glued and screwed to the frame, screwing at 24 inch centers using screws that are a minimum of 2 inches long and covering the entire frame, where contact with the cement board is made, with a good quality mastic type adhesive. To ensure safety, strength and permanent fixing, this work should only be done by a qualified and licensed builder.



Installing Stone Design

Each product should be checked and made free of dirt, sand, or loose particles. When necessary, wash them completely. If the back of the product is dry, dampen it first with a wet sponge, but do not saturate. This prevents the stone from pulling the moisture from the adhesive, allowing it to cure naturally and with a stronger bond.

The recommended type of polymer modified tile thin set mortar will meet or exceed ANSI 118.4 and 118.11 adhesion standards, and are generally available at any tile shop and most big box home improvement stores. Tile thin sets are rated for both interior only and interior / exterior work, so it is important to use a thin set meeting the requirements of your installation. Mix the appropriate tile thin set to a creamy consistency for a minimum of 5 minutes or as per manufacturer's instructions. When fixing Manufactured Stone Veneer tiles it is necessary to start the bottom row on a level line to maintain a consistent level as you work up the wall. It is also important that they rest on a secure base such as a concrete floor or footing to help carry the weight and ensure the level stays consistent until the thin set sets up.

When installing Stone Design products use a generous amount of recommended polymer modified tile thin set mortar and apply it to the back of each tile and to the wall. It is important to notch the tile adhesive on to the wall as would normally be the application method used for laying tiles. By applying the adhesive to the back of each tile and to the wall, this ensures the maximum possible adhesion to your wall surface, as all the gaps, voids and cracks are filled. This is a critical to ensure that a strong bond is formed with the wall. Press each rock panel into the adhesive, rotating slightly, forcing some of the thin set to squeeze out freely. Any thin set forced out beyond the finished joint or on the tile surface itself must be removed before it is allowed to set. Remember tight joints will provide a neat appearance. Be sure not to allow any thin set to harden on the face of the tiles as this will help in the cleanup process.

The installation pattern of the product should be strictly followed during installation. Panels should be overlaid or offset so that a "continuous running bond" pattern starts to form, which minimizes the appearance of vertical joint lines up the wall. The panels should not be "stacked" one on top of the other in a single line up the wall.



Working with Corners

The way to form outside corners, or corners that are not at 90 degrees, is to miter cut panels on site. To miter cut an outside corner, select one rock panel and mark the point where the join should be. Cut the panel at the mark with no tilt, or at a 0 degree angle on the saw. Then the two pieces need to be individually cut on a 45 degree miter to form a right angle. Once cut, check the panel to make sure it forms a perfect 90 degree corner. The color, the width and thickness of the stone pieces should match to form a continuous look that seems to "flow" around the corner. Never use 2 different panels to form a corner, as the color, texture and thickness will not match as desired.

Inside corners are ideally formed by cutting the stone with a standard inside corner miter cut. Inside miter cuts, where the stone folds into itself, are easy cuts to perform on site with a tilting wet saw. Alternatively, two panels can be butt joined together at the inside corner, and any gaps filled in with pigmented mortar if a tilting wet saw is not available.

Moisture Management

Stone Design Manufactured Stone Veneer is an excellent choice of building material for any environment and climate, be it interior or exterior, adjacent or completely submerged in water, desert hot or polar cold. Certain products should be used and procedures followed in some of these environments, as noted below:

Moisture Rich Environments – It is critical that a waterproofing membrane meeting or exceeding ANSI 118.10 & 118.12 standards be applied between the substrate and tile adhesive to form a waterproof barrier. This will ensure moisture will not reach the substrate material and potentially degrade its ability to support the veneer.

Freeze / Thaw Climates – Stone Design Manufactured Stone Veneer will not be affected at all by the normal freezing and thawing of the climate which they are exposed to, however, the same cannot be said about the substrate to which they are applied. It is critical that a waterproof / anti-fracture membrane meeting or exceeding ANSI 118.10 & 118.12 standards be applied between the substrate and tile adhesive to form a water and fracture proof barrier, capable of resisting substrate movement during freeze thaw cycles.



Cleaning

Excess dirt and film may be removed using clean water and a stiff brush. It is important not to allow thin set to dry on face of the stone. Remove it prior to it hardening.

WARNING: Do not use acid wash because it has been known to have an adverse effect on stone and can possibly cause staining, etching, and rusting.

Sealing the stone

Stone Design Manufactured Stone Veneer may be sealed with a penetrating, water based sealer only after thoroughly curing which usually takes 4 weeks on inside work. Follow the manufacturer's instructions on the application of any sealer. Sealed stone may be easier to keep clean and maintain than unsealed stone and certain sealers also repel stains. Always test a sealer on a sample of stone or an off-cut before applying to the entire application to ensure any color enhancing and sheen properties of the sealer match the desired result.

Sealing Stone Design Manufactured Stone Veneer is recommended for certain applications, such as moisture rich environments, and some exterior applications, depending on the level of exposure and other factors, including climate and other environmental factors.

Disclaimer: The information provided here is intended to be general only. It does not purport to be comprehensive. You should not act on the basis of information contained on this site without obtaining qualified professional advice from a licensed professional which can be tailored to suit your specific circumstances and needs.

Professional Installation Recommended. Stone Design Manufactured Stone Veneer can be installed by most home handymen with a limited knowledge of building and construction. We strongly recommend that Stone Design Manufactured Stone Veneer is to be installed by professional licensed tradesmen or contractors.