Specification Data

SECTION 04730

SIMULATED STONE

SPECIFICATION DATA

Rock Decor

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3. Product Description

Basic Use

Rock Décor is a manufacturer of lightweight concrete products, designed for cosmetic use on interior and exterior walls. The product is intended for non-structural use, and because of its light weight, requires no additional footings. Veneer or manufactured stone can be applied to almost any load-bearing wall, wood frame, steel or masonry.

Composition & Materials

Rock Décor stone is produced from a combination of portland cement, lightweight aggregates and permanent mineral oxides. It is formed in molds produced from natural stone.

Types

Hearthstones - 4 Types

Window Trim – Multiple Types

Utility Accents – Multiple Types

Wall / Pier caps – Multiple Types

Sizes & Shapes

Rock Decor Stone will vary greatly in size and shape. See manufacturer’s current literature for detailed sizing information on each stone product. Stone thickness will vary from 1” - 3” (25.4 - 51 mm) depending on product.

Colors

Many color options are available for the different styles of stone. See manufacturer’s brochure for current color selections.

Limitations

Rock Decor Stone should not be used in areas that may come in contact with harsh chemicals and/or de-icing materials. Hearthstones are not intended for, and will not hold up to, foot traffic. Do not sandblast, pressure wash, or use wire brushes or acidic compounds to clean the stone.

4. Technical Data

Applicable Standards

ASTM International (ASTM) - ASTM C39 Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens

Physical / Chemical Properties

Absorption - < 18%

Compression Strength (ASTM C39) > 1800 psi (12.4 MPa)

Thickness - 1” - 3” (25.4 - 51 mm)

Fire rating - Zero flame spread, zero fuel contributed, zero smoke developed

Veneer Unit Weight: <15 pounds per sqaure foot (73 kg/m2)

R-value - 0.75 - 1ft² x h x ºF/Btu (0.132 - 0.176 m² x K/W)

5. Installation

Installation of Rock Décor Stone shall be in strict accordance with local building code requirements.

Mortar

Premixed mortars may be used provided they meet the requirements of ASTM C 270 for Type N or Type S mortars and are designed for use with manufactured stone veneers. Polymer modified premixed Type N or Type S mortar meeting ASTM C 270 is also acceptable. Not all premixed mortars will provide the minimum required 50 psi shear bond strength. Check with the mortar manufacturer to ensure that their product meets or exceeds ASTM C 270 requirements and will meet the minimum bond code requirements.

Over Sheathing (Wood Studs): Plywood, OSB, Cementitious Backer Board, Gypsum Wall Board, Drywall, or other Rigid Wood Related Sheathing.

The WRB shall be applied horizontally in shingle fashion starting from the bottom. Be sure to overlap the upper layers over the bottom layers. Where vertical joints occur the WRB shall be lapped at least 6”. Where horizontal joints occur the WRB shall be lapped not less than 2”. Refer to WRB manufacturer’s installation instructions for fastener spacing recommendations. If none exist, only use enough fasteners to support the WRB before installing lath. The next step is to install metal lath perpendicular to the framing. Overlap the lath sides a minimum of 1” and lath ends a minimum of 1”. Be sure to attach the metal lath with the small cups pointing upwards and verify the lath is pulled tight before fastening to avoid lath or mortar sag. The ends of adjoining metal lath shall be staggered. Attach the lath using galvanized nails or staples 6” on stud center vertically and 16” on stud center horizontally. Do not use fasteners in between framing and ensure your fasteners penetrate the stud a minimum of 1”. Inside and outside corners must have lath double wrapped or continuously wrapped 16” around each corner. Then apply a nominal 1/2” thick coat of mortar with sufficient pressure to fully embed the lath. The entire lath must be covered with mortar so the lath is not visible. The mortar should be scored horizontally with a notched trowel or scarify to create the scratch coat when the mortar has become thumbprint-dry. NOTE: All sheathing should be installed according to the manufacturer’s recommendations for fastener requirements including, but not limited to, all wood based sheathing which should be gapped 1/8”. Exposure 1 sheathing is designed for temporary exposure to the weather. It should be covered with an approved WRB as soon as possible after being installed. Not all WRB are resistant to ultraviolet rays, so the wall should be lathed and a scratch coat should be applied as soon as possible after the WRB is installed.

Over Open Stud Framing (No Sheathing) Apply paper-backed galvanized 3.4 lb., 3/8” rib paper-backed metal lath (meeting ASTM C 847) to the studs using galvanized nails or staples every 6” vertically on stud centers with a minimum 1” penetration into the stud. Overlap lath sides by not less than 1” and lath ends by not less than 1”. Apply a 1/2” thick scratch coat and moist cure for at least 48 hours.

Over Open Metal Studs (No Sheathing)

Follow the instructions for Over Open Studs (No Sheathing) except use corrosion-resistant self-tapping screws with a 7/16” head that provides 3/8” minimum penetration beyond the inside metal surface.

Over Metal Studs With Sheathing

Follow the instructions for Over Sheathing (Wood Studs). However, using corrosion-resistant self-tapping screws with a 7/16” head that provides 3/8” minimum penetration beyond the inside metal surface are recommended.

Over Metal Panels

The metal wall panels must provide a firm support and be a minimum No. 18 gauge galvanized steel

with a minimum base-metal thickness of 0.0478”. Application is similar to sheathing over studs except the lath should be fastened with self-tapping screws spaced 12” horizontally and 6” vertically. Screws must have a minimum thickness of 1/2” with a minimum 7/16” diameter head. The scratch coat must be a minimum of 1/2” thick and be allowed to cure for at least 48 hours before installing veneer.

Clean Cementitious (CMU) & Masonry Surfaces Including, But Not Limited To Brick, Block, and Stone

Examine the surface to ensure it is solid and shows no sign of deterioration. The clean surface should not be painted, sealed or have other coatings that may prevent adequate bond of the scratch coat to the substrate. To determine if your wall is painted, treated or sealed, spray water onto the wall. If the water beads follow the instructions for Painted, Sealed, or Treated Cementitious Surfaces. If there are random areas of water beading, clean surface again or apply metal lath and scratch coat. If the water does not bead, apply a scratch coat onto the surface using sufficient pressure to ensure the mortar is fully adhered to the surface. Apply the scratch coat using a Type N or Type S mortar onto the surface using sufficient pressure to ensure the mortar is fully adhered to the surface. Score the surface horizontally when the mortar has become thumbprint-dry.

NOTE: If installed on an interior space intended to be inhabited, it may be necessary to waterproof the masonry wall. Bonding agents can be used to enhance the bond of the mortar to the masonry surface and the veneer.

Painted, Sealed, or Treated Cementitious (CMU) Surfaces

Clean the surface by bead blasting or sand blasting. After the surface is clean, spray water onto the wall. If the water beads continue bead blasting or sand blasting until surface is clean. Apply scratch coat before installing veneer. If the wall cannot be cleaned, install metal lath using concrete nails or screws. Do not exceed 6” x 16” spacing between fasteners. Fasteners should penetrate the concrete surface by a minimum of 3/4”. Apply a scratch coat to the metal lath before installing the veneer.

Over Rigid Insulation Board

Follow the installation instruction for sheathing applications. If the rigid insulation board is thicker than 1/2”, consult with a registered engineer to determine if any additional fastener requirements are needed to support the weight of the veneer system.

Stucco

Rock Decor Stoner can be installed over clean stucco surfaces free of debris, paint and sealers

Provided the following conditions are met: Stucco installation meets the requirements of ASTM C 926. If sheathing was used, the lath must be 2.5 lb. metal lath, 18 gauge woven wire mesh or heavier. If there is no sheathing, the lath size must be 3.4lb., 3/8” rib expanded metal lath. If there is rigid insulated foam board and no sheathing, the lath must be 3.4 lb., 3/8” rib expanded metal lath. Thickness of the stucco is at least 3/8”. If applying veneer over a stucco color (finish coat) verify with the mortar manufacturer that their product is able to achieve a 50 psi shear bond strength over these surfaces. If the above conditions are not met, the stucco will need to be removed before installing veneer.

Tilt Wall and Poured-In-Place Walls

Surface preparation is important over these types of surfaces to ensure a successful installation. Surface should be bead blasted or sand blasted until the wall has a sandpaper-like texture and all slick areas have been removed. Next, spray water on the wall. If the water beads, the surface must be bead blasted or sand blasted again. If water continues to bead or the surface cannot be prepared to accept a direct installation of Dutch Quality Stone, install metal lath and scratch coat before you begin the veneer installation. If applying directly to the tilt wall or poured-in-place wall, ensure the wall is damp without excess water (beading) on the surface.

NOTE: Use of lath after the surface is clean provides the most trouble-free installation on concrete wall. Use of a primer (dash-bond coat) may increase bonding for applications over tilt wall without lath. A dashbond coat consists of a 1:1 mixture of portland cement and sand. The mixture should be a wet slurry (batter) consistency. After mixing, spray or “dash” onto the wall and allow it to cure.

Insulated Concrete Form (ICF) Walls

There are variations between ICF manufacturers on the material, spacing, and strength of their support brackets. Consult with the ICF manufacturer to determine how they recommend installing cladding systems over their product. If the support brackets cannot support the weight of the veneer system, Rock Decor recommends attaching the lath through the ICF panels directly to the concrete. A

Registered engineer should be consulted to determine the appropriate fastener to use for applications through foam greater than 0.5” thick.

Laying Out The Veneer

Before you begin, lay out a minimum 25 s.f. of veneer. Select and mix pieces from different boxes throughout the installation. During installation, try to achieve a balanced pattern of shapes, sizes, colors, thickness and textures by selecting and mixing veneer.

Grouting The Joints

After the veneer has been applied to the wall surface use a grout bag to fill the joints with mortar forcing grout into any voids. Be careful not to smear grout onto the face of the veneer. Any mortar that accidentally gets on the veneer should be allowed to set until dry and crumbly, then brushed off with a dry whisk broom. It is not necessary to joint grout a dry-stack installation because the veneer edges should have already been properly sealed with mortar when the veneer was applied to the wall. However, if the scratch coat is visible, or if the perimeter of the veneer pieces are not sealed with mortar, grout as needed.

Finishing The Joint

When the mortar joints become thumbprint-dry, use a wooden or metal striking tool to rake out the excess mortar to the desired depth. Be sure to force the mortar into the joints to seal the mortar against the veneer. Be careful not to work the joints too soon or the mortar will smear. A concave joint will have fewer tendencies to develop hairline cracks at the interface between the veneer and the mortar. After working the joints, use a whisk broom to smooth the joints and clean away any loose mortar from the joints and veneer face. If any mortar accidentally gets on the veneer face, do not try to wipe it off since it may smear and stain the veneer. The mortar should be allowed to set until dry and crumbly and then brushed off with a dry whisk broom. Loose mortar and mortar spots, which have set for only a few hours, should never be allowed to set up overnight.

Flashing

Install flashing type and location in accordance with local building code requirements. Corrosion resistant flashing must be installed around all penetrations and terminations of the veneer application. The lower ends of the veneer installation shall terminate 4” above earth surfaces or 2” above paved surfaces with a foundation weep screed unless an alternative method for flashing is approved by the building official. The perimeter of the scratch should incorporate the use of casing bead (minimum 1/2” depth), control joints, or other approved accessories.

Cleaning

To remove mortar and light scuffing, clean immediately with water and a soft nylon brush. Mortar is difficult to remove once bonded to the face of the stone; therefore, it is important to clean the day of installation.

Sealers

Sealing the veneer is not required. If you choose to apply a sealer use only a penetrating and breathable silane or siloxane-based masonry sealer. The sealer should be tested on a few veneer pieces first to determine if there will be any undesirable effects. Some sealers may alter the color of the veneer by making the surface darker or changing the sheen. Refer to the sealer manufacturer for recommended application, coverage and maintenance.

Building Codes

Installation must comply with requirements of all applicable local, state and national code jurisdictions.

6. Availability & Cost

Availability

Rock Decor is available for purchase through an established dealer network. Contact manufacturer for information on local distributors.

Cost

Budget installed cost information may be obtained from a local distributor, as cost varies greatly by region.

7. Warranty

Rock Decor warrants, subject to the terms and conditions of the full written warranty, that its manufactured concrete products shall be free from defects in materials manufacturing and workmanship for a period of 50 years from the date of purchase. The manufacturer will not be liable for any cracked or damaged product due to mishandling, building settlement, improper installation, discoloration due to airborne contaminants or acts of God beyond the control of the manufacturer. This warranty is limited to the original purchaser and may not be transferred.

8. Maintenance

Most applications require little to no maintenance. Complete maintenance information and recommendations are available from the manufacturer. Consult Rock Décor for details.

9. Technical Services

A staff of factory trained service personnel offers design assistance and technical support. For technical assistance, contact Rock Decor.

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