

## SPEC-DATA

### 1. PRODUCT NAME

Manufactured stone veneer

### 2. MANUFACTURER

Manufactured Stone Company

7708 McElvey Road

Panama City Beach, FL 32408

(850) 233-7660

(850) 233-7667 Fax

[www.manufacturedstonecompany.com](http://www.manufacturedstonecompany.com)

### 3. PRODUCT DESCRIPTION

#### Basic Use

Manufactured Stone Company's products are intended for interior or exterior nonstructural use as a lightweight veneer facing on masonry, metal framed, or wood framed construction for architectural detail. All products are created by master craftsmen who select the best textures, shapes and sizes of natural stones. The products are ideally suited for all types of residential and commercial projects. Manufactured Stone Company products are produced in preselected sizes and shapes. No additional foundation or structural support is required. Installation is simple and quick, and costs much less than natural stone.

#### Materials

Manufactured Stone Company products are cast in molds using a specific process that replicates existing colors and textures. Each has its own blend of ingredients, including Portland cement, lightweight aggregates and iron oxide pigments, producing the look and feel of natural stone.

#### Stone Products

- Stone Veneer

- Hearthstones
- Capstones
- Sills
- Keystones

#### Sizes & Shapes

Random sizes, shapes, and textures of finished product duplicate natural stones. The stone diameters vary from 2" – 30". The average thickness of the stone veneer is 1 3/4". Thickness may vary from 1" – 2 5/8" depending on the texture.

#### Colors

See published literature for available colors.

#### Weight

- Maximum stone veneer weight 14 lbs psf
- Shipping weight – 8 to 14 lbs/ psf
- Manufactured stone (Flats) are available by the pallet. Each pallet contains approximately 100 square feet of stone. Each pallet is wrapped with shrink wrap.
- Manufactured stone (Corners) are available by the pallet as well. Each pallet contains approximately 55 lineal feet of corners. Each pallet is wrapped with shrink wrap.

#### Finishes & Textures

##### *Manufactured Stone Company Textures*

- Mountain Ledge Stone
- Dry Stack Ledge Stone
- Coral Stone
- Castle Stone

#### Hearthstones

- Size – 20" x 20"

#### Keystones

- Size – 7" x 7" x 3"

**Sills**

- Size – 29” x 4” x 3”

**Capstones**

- Size – 24” x 24” Chiseled

**Wall Capstones**

- Size – 32” x 32”

*Note* - The above accessories are available in the following colors: Caramel, Buckskin, Grey and Chardonnay (unless otherwise specified).

**Limitations**

Manufactured Stone Company products should not be assumed to add to the load bearing capacity of a wall. Product should not be used below water level, such as in swimming pool liners. Chlorine and other chemicals may discolor the stone veneer product and other masonry materials. Product should not be used in areas vulnerable to slush formed by chemicals to melt ice or snow. Install a minimum of 4” above grade or 2” above pavement. Hearthstones are not recommended or warranted for exterior use or as a surface subject to foot or auto traffic.

**4. TECHNICAL DATA**

**Applicable Standard**

*ASTM International*

- ASTM C39 Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
- ASTM C67 Standard test Methods for Sampling and Testing Brick and Structural Clay Tile
- ASTM C91 Standard Specification for Masonry Cement
- ASTM C177 Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties By Means of the Guarded Hot Plate Apparatus

- ASTM C192 Standard Practice for Making and Curing Concrete Test Specimens in the Laboratory
- ASTM C207 Standard Specification for Hydrated Lime for Masonry Purposes
- ASTM C270 Standard Specification for Mortar for Unit Masonry
- ASTM C482 Standard Test Method for Bond Strength of Ceramic Tile to Portland Cement
- ASTM C567 Standard Test Method for Unit Weight of Structural Lightweight Concrete
- ASTM D226 Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing

**Uniform Building Code**

- UBC Standard 15-5 for Water Absorption
- UBC Standard 14-1 Kraft Waterproof Building Paper
- UBC Standard 26-10 Parts I and IV; Test Method for Compressive Strength of Cylindrical Concrete Specimens

**Approval & Acceptances**

MACTEC Engineering & Consulting  
 2200 Gravel Drive  
 Fort Worth, TX 76118-7123

Project: 9023702  
 Report: 405381  
 Mfg. Affiliation: Gold Cast Products

**Physical/Chemical Properties**

- Compressive Strength: ASTM C39 Air Cured (6,200 psi)
- Bond Strength: ASTM C 482 (371 psi)

- Density: ASTM C567 @ 2.0 " Thickness SSD (Lbs/SF) 15.01
- Freeze/Thaw: (ASTM C67) Pass
- Tensile Strength: (ASTM C190) 286 psi
- Flexural Strength: (ASTM C348) 666 psi
- Dimensions: (ICBO AC 51-2001) Pass

## 5. INSTALLATION

### Determine The Amount Of Stone Required

- **Flat Stones:** To estimate the square footage of flat stones needed for your project, multiply the length times the height for each side. Make sure to subtract the square footage for any windows, doors, or other openings.
- **Corner Stones:** To estimate the corner stones needed, measure the height of each corner of your project. This will give you the total lineal footage of corners needed. It is important to note that one lineal foot of corners covers an area equal to approximately ½ square feet of flats.

### Select Installation Method Based On Substrate

#### Sheathing

1. Apply weather resistive barrier over the sheathing surface. Weather resistive barrier should be equivalent to UBC Standard 14-1, asphalt-saturated rag felt, or ASTM D226. (No. 15, Type 1 felt). Apply the barrier so that the upper layer overlaps the lower layer by 2". Overlap vertical joints by 16".
2. Install lath over weather resistive barrier. Use either 2.5 lb Diamond mesh expanded metal lath or 18 gauge woven wire mesh. Lath sides and ends should overlap by 1". Install lath with the small cups pointing upwards.
3. Attach lath using galvanized nails or staples 6" on center vertically and 16" on center horizontally. Fasteners should penetrate studs a minimum of 1". Lath must overlap inside and outside corners by 16".
4. Using a Type N or S mortar mix, apply a ½" thick scratch coat to entire lath surface and allow it to set.

#### Clean Masonry Surface

1. Using a Type N or S mortar mix, apply a ½" thick scratch coat to the entire masonry surface and allow it to set.

#### Painted, Treated, Poured In Place or Sealed Masonry Surfaces

- **Option A** is to clean masonry surface by acid etching, sand blasting, or wire brushing to completely remove sealers, paint, or release agents. Using a Type N or S mortar mix, apply a ½" thick scratch coat to the entire masonry surface and allow it to set.
- **Option B** is to apply 2.5 lb diamond mesh expanded metal lath. Lath sides and ends should overlap by 1". Install lath with the small cups pointing upwards. Using a Type N or S mortar mix, apply a ½" thick scratch coat to the entire masonry surface and allow it to set.

#### Applying The Stone

- Gently wet the scratch coat and stone veneer
- Start by installing corners first, then flat stones
- Using a Type N or S mortar mix, cover the entire back of stone with a ½" layer of mortar
- Apply the stone to the scratch coat. Gently wiggle the stone veneer so that mortar oozes out around all edges
- Stone installations should be kept 4" above grade

#### Grouting The Stone

- Grout as needed with Type N or S mortar mix. Be sure to fill any areas where the scratch coat may be exposed. Strike joints after grout is thumbprint dry.
- Whisk away loose mortar

### Helpful Tips

- **Laying Out Stone:** We suggest laying out 25-30 square feet of stones (selected from different boxes) before application to ensure a consistent blend of color, shapes and sizes
- **Cleaning:** Only clean Manufactured Stone veneer with a granulated type mild detergent mixed with water and a soft bristle brush. For a stronger cleaning solution, use 1 part white household distilled vinegar mixed with 5 parts water. Apply solution using a soft bristle brush. Rinse as necessary. ***Muriatic acid will discolor the stone and is not recommended.***
- **Grout:** Techniques and color vary. To ensure desired results, we recommend having your mason prepare a mock-up board before installation.
- **Drainage:** It is important to divert water run-off through the use of gutters, caps, and flashing. Prolonged exposure to consistent water flow may result in discoloration and/ or surface damage. Flat and corner pieces should not be used on exterior horizontal planes or to cap walls.
- **Sealing:** Sealing the stone is not required, except in applications installed to grade (ground level). Only use a penetrating, breathable, masonry sealer that is either Silane or Siloxane based. Sealers may alter the color or appearance of the stone. Manufactured Stone Company's veneers should not be installed below grade.
- **Retaining Walls:** Applications over retaining walls must be waterproofed and incorporate proper drainage on the fill side.
- **Pools/Water Features:** Manufactured Stone Company does not recommend installing stone in areas that will subject it to chlorine or other harsh chemicals.

## 6. AVAILABILITY & COST

### Availability

Manufactured Stone Company's products are available by contacting the manufacturer at (850) 233-7660.

### Cost

These products are priced on a square foot basis. Jobsite delivered cost will vary depending on distance from the manufacturing plant. Installation cost may be affected by the type of substrate and necessary preparations. Budget total installed cost information may be obtained by calling (850) 233-7660 or from a local installer.

## 7. WARRANTY

### Warranty

Manufactured Stone Company products are covered for a period of 50 years from the date of purchase when used on a structure which conforms to local building codes and when installed in accordance with building codes and manufacturer's instructions. Manufactured Stone Company will repair or provide, free of charge, new materials to replace any determined to be defective.

This warranty is limited to the original purchaser and may not be transferred to any subsequent owner. This warranty does not cover damage resulting from settlement of the building or other wall movement, contact with chemicals or paint, discoloration due to airborne contaminants, or staining, oxidation or damage done by power washing, acid washing, sandblasting or wire brush cleaning.

This warranty covers only manufacturing defects in products produced by Manufactured Stone Company. Manufactured Stone Company is not responsible for labor costs incurred in removal and replacement of defective products. Hearthstones are not warranted for use on the ground or as a surface area subject to foot traffic.