

CULTURED STONE®

1. Product Name

- Cultured Stone® MSV
- Cultured Brick® Thin Brick Veneer
- Architectural Trim
- Terra Craft®

2. Manufacturer

Owens Corning
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3. Product Description

BASIC USE

Cultured Stone® brand products are intended for interior or exterior nonstructural use as a lightweight veneer facing on masonry, metal framed, or wood framed construction for architectural aesthetics. Products are created by master craftsmen who select the best textures, sizes and shapes from natural stones. These products are suitable for use on residential and commercial projects of many types. Cultured Stone brand products are produced in preselected sizes and shapes. No additional foundation or structural support is required. Installation is quick and easy, and costs far less than a full thickness natural stone wall.

COMPOSITION & MATERIALS

Cultured Stone brand products are cast in molds using a unique process that replicates existing colors and textures with meticulous detail. Each color and texture has its own blend of ingredients, including Portland cement, lightweight aggregates and iron oxide pigments, producing the look and feel of natural stone.

TYPES

- Stone veneer
- Brick veneer
- Hearthstones
- Quoins
- Capstones
- Watertable/Sill
- Keystones

- Landscape Pavers
- Lintels

SIZES & SHAPES

Random sizes, shapes and textures of finished product duplicate natural stones. Stone diameter varies from 2" - 30" (51 - 762 mm). The average thickness of Cultured Stone wall veneers is 1 3/4" (45 mm). Thickness may vary from 1" - 2 5/8" (25.4 - 67 mm) depending on the texture.

WEIGHT

Shipping weight is approximately 8 - 12 psf (39 - 59 kg/m²).

FINISHES & TEXTURES

Cultured Stone Textures

- Blended Textures
- Carolina LedgeStone
- Cobblefield®
- Coral Stone
- Country LedgeStone
- Dressed Fieldstone
- Driftstone
- Drystack LedgeStone
- European Castle Stone
- Fieldstone
- Limestone
- Old Country Fieldstone
- Pro-Fit® LedgeStone
- River Rock
- Rock Face
- Southern LedgeStone
- Split Face
- Stream Stone
- Water Wash Wall Stone
- Weather Edge LedgeStone

Cultured Brick® Textures

- Used Brick

Terra Craft®

- Water Wash Patio Pavers

Architectural Trim Styles

- Capstones
- Hearthstones
- Lintels
- Keystones & Trim Stones
- Quoins
- Watertables & Sills

COLORS

See manufacturer's published literature for available colors.

Note - Cultured Stone brand products are durable and colorfast in interior and exterior applications.



Interior Application

LIMITATIONS

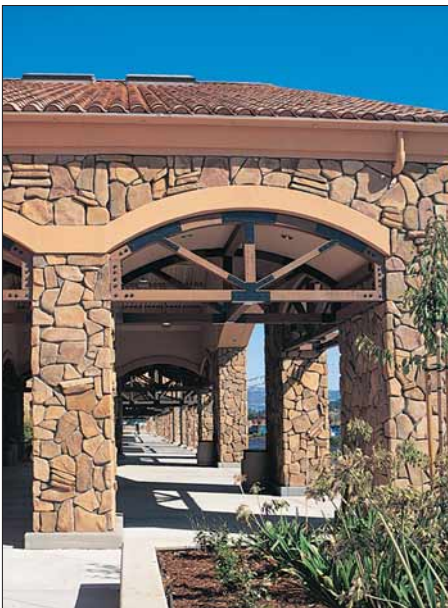
Cultured Stone brand products should not be assumed to add to the load bearing capacity of a wall. Product should not be used below water level, such as in swimming pool liners. Chlorine and other chemicals may discolor the Cultured Stone MSV product and other masonry materials. Product should not be used in areas vulnerable to slush formed by chemicals used to melt ice or snow. Install a minimum of 4" (102 mm) above grade. Hearthstones are not recommended or warranted for exterior use or as a surface area subject to foot traffic. Terra Craft® pavers are available for patios, walkways and driveways.

4. Technical Data

APPLICABLE STANDARDS

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 C150 Standard Specification for Portland Cement



Exterior Application

- 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

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

APPROVALS & ACCEPTANCES

City of Los Angeles, California - Research Report RR23744

International Conference of Building Officials (ICBO) - Report 5749

National Evaluation Service, Inc. - National Evaluation Report NER-358 - (BOCA, UBC, SBC, TRC, IBC)

Southern Building Code Congress International (SBCCI)

Underwriters Laboratories, Inc. (UL) listed

U.S. Department of Housing and Urban Development (HUD) - Materials Release No. 1316

Texas Department of Insurance Product Evaluation EC-21

Building Materials Evaluation Commission BMEC #01-04-256

PHYSICAL/CHEMICAL PROPERTIES

Test reports and product data are available upon request.

FIRE RATING

- UL File #R7704 for Mineral Composition Units
- Flamespread, 0
- Smoke developed, 0

Cultured Stone manufactured stone veneers and hearth stones are made from noncombustible materials. They are listed by Underwriters Laboratories, Inc. (Listing #209T and #3592), for use as floor protectors and wall shields with stoves and on fireplace hearths. Mortar joints must not exceed 1/2" (12.7 mm) in width and the mortar must be even with the top of the hearth surface.

5. Installation

Complete installation recommendations are available from the manufacturer.

PREPARATORY WORK

Handle and store product according to Owens Corning recommendations. Spread out Cultured Stone brand products at the jobsite so there is a good variety of sizes, shapes, and colors to choose from. Plan some variety and contrast in the overall design. Use small stones next to large ones, heavy-textured pieces next to smooth, and thick stones next to thinner ones. Mixing Cultured Stone brand products from different boxes during application will allow a desirable balance of individual stones on the finished project. Tinting mortar complements the color of the stone being installed. For example, use tan mortar with earth tone stones. This will greatly enhance the appearance of the finished installation. Regular mortars can be tinted to complement Cultured Stone brand products using iron oxide pigments.



Exterior Application

METHODS

If stone is being applied in hot or dry weather, the back of each piece should be moistened with a fine spray of water or a wet brush to adequately prevent excessive absorption of moisture from the mortar. If being installed over concrete, masonry or scratch coat substrate, the substrate surface area should also be dampened before applying mortar. Applications should be protected from freezing as mortar will not set up properly under such conditions. Do not use antifreeze compounds to lower the freezing point of mortar.

Exterior Applications

Make sure that the application of Cultured Stone brand products and the structure to which they are being applied incorporate good building practices. On exterior applications, the incorrect installation or absence of flashing, cant strips, gutters and downspouts may result in diversion of water runoff onto finished surface areas. Masonry and other building products subjected to these conditions may develop staining and, when combined with severe freeze/thaw conditions, may eventually cause surface damage. The application of Cultured Stone brand products under these conditions is not recommended.

Determine the amount of Cultured Stone MSV product needed by measuring the area to be covered. Measure the length times the height to arrive at the square footage of flat stone needed. Subtract square footage for

window and door openings. Measure the linear feet of outside corners to determine the amount of corner pieces needed. One linear foot of corner pieces covers approximately 3/4 of a square foot of flat area. Subtract the flat area covered by the linear feet of corner pieces from the square footage of flat stone required. Obtain some extra stone to allow for cutting and trimming.

Applying Mortar to Prepared Surface Area
Using a trowel, apply mortar 1/2" - 3/4" (12.7 - 19.1 mm) thick to prepared surface area. Do not spread more than a workable area of 5 - 10 ft² (0.47 - 0.93 m²) so that mortar will not set up before stone is applied. Ensure complete coverage between the mortar bed and back surface of the stone. Mortar may also be applied to the entire back of the stone.

Starting Point

Apply mortar and stone working from the bottom up, or most stones can be applied from the top down. Working from the top down may help avoid splashing previously applied stone with dripping mortar. Ledge stone types should be installed from the bottom up.

Joint Width

In order to obtain the most natural look, joints should be as narrow as possible; average joints should not exceed 1/2" - 3/4" (12.7 - 19.1 mm) in width. An attractive look can also be achieved by fitting stones tightly together if desired.

Setting the Stones

Press each stone into the mortar setting bed firmly enough to squeeze some mortar out around the stone's edges. Apply pressure to the stone to ensure a good bond.

PRECAUTIONS

Incorporate good building practices. Building code requirements vary from area to area, so check with authorities for local requirements. Carefully read all installation instructions before proceeding with Cultured Stone MSV application. Observe applicable jobsite safety practices.

BUILDING CODES

Current data on building code requirements and product compliance may be obtained from Owens Corning technical support specialists. Products are tested and listed by Underwriters Laboratories, Inc. Installation must comply with the requirements of all applicable local, state and national code jurisdictions.

6. Availability & Cost

AVAILABILITY

Cultured Stone brand products are available from a network of authorized masonry suppliers throughout the United States and Canada. Distributors are also located in many countries worldwide.

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 the necessary preparations. Budget total installed cost information may be obtained from a local dealer or installer.

7. Warranty

Cultured Stone brand 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 the manufacturer's instructions. Owens Corning 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 or oxidation.

This warranty covers only manufacturing defects in Cultured Stone brand products manufactured by Owens Corning. Owens Corning 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.

Terra Craft® products are covered by a separate 5 year Limited Warranty.

8. Maintenance

Most applications require no maintenance. Exterior applications where excessive dust or dirt accumulates should be washed down occasionally.

Cleaning

Use a strong solution of granulated soap or detergent and water with a bristle brush. Do not use a wire brush as it will cause damage to the surface. Rinse immediately with fresh water. Do not attempt to clean using acid or acid based products. Do not clean with high

pressure power washer.

Salt and De-icing Chemicals

Do not use de-icing chemicals on areas immediately adjacent to a Cultured Stone products application.

Scuffing

Scuffing occurs on all natural stone. Occasionally, some scuffing will occur on the surface of Cultured Stone products. Some scuff marks can be removed by cleaning as described above.

Efflorescence

On rare occasions, efflorescence may occur on Cultured Stone products. To remove efflorescence, allow the stone to dry thoroughly, then scrub vigorously with a stiff bristle brush and clean water. Rinse thoroughly. Do not use a wire brush. For more difficult efflorescence problems, scrub thoroughly with a solution of 1 part white household vinegar to 5 parts water. Rinse thoroughly.

Sealers

Sealers are not necessary on Cultured Stone products. However, some customer use sealers do help prevent staining in applications prone to smoke, soot, dirt or water splashing. If choosing to use a sealer, ensure it is a silane based, breathable sealer. Sealer may darken the color of the stone. A sealer may also slow the natural movement of moisture out of the stone and increase the possibility of efflorescence and spalling.

9. Technical Services

A staff of trained technical personnel offers design assistance and technical support to architects, engineers, applicators and owners to discuss type selection, costs, and installation procedures. For technical assistance, contact Owens Corning.

10. Filing Systems

- First Source™
- MANU-SPEC®
- Sweet's Catalog Files
- Additional product information is available from the manufacturer upon request.