

TECHNICAL

SUBMITTAL PACKET



COMPANY NAME:	
CONTACT NAME:	
PROJECT TITLE:	
STREET ADDRESS:	
CITY, STATE, ZIP:	

We would like to congratulate you on your upcoming project which incorporates adhered concrete masonry veneer products. Enclosed in this packet are the required Cultured Stone submittal forms and technical documents. We have also enclosed additional support materials and installation details commonly requested by architects and contractors.

Visit culturedstone.com/resources to view all digital materials available for download.

Submittal Form
Technical Data Sheet
50-Year Warranty
Certificate of Quality
3-Part Specification

ICC-ES Evaluation Report
Technical Evaluation Report
Safety Data Sheet
UL Environmental Claim Validation Summary

As part of our commitment to service, we would like to recommend that you take advantage of our consulting services.

We have trained Technical Field Service representatives that will walk through your project with you prior to installation. This can help prevent improper installations and in some cases identify where additional stone or accessories may be needed.

Thank you again for choosing Cultured Stone. Should you have any questions, please do not hesitate in contacting us. We are grateful for the opportunity to be a part of your project needs.

Sincerely,

Sales Representative
Cultured Stone

Please fill out all known information and email completed form to cs@westlake.com.

PROJECT DETAILS	CULTURED STONE
Project Name:	Profile:
Project Address:	Color:
City, State, Zip:	Approx. Sq Ft:
	Manufacturing Location:

	Company Name	City, State	Contact Name	Contact Phone
OWNER				
ARCHITECT				
BUILDER				
MASON				

Project Notes:

Pre-Installation Project Team Meeting Scheduled? Y ☐ N ☐ Date Scheduled:

Your signature below acknowledges receipt of Cultured Stone's "Submittal Packet" and the above information is accurate to the best of your knowledge.

Received by:

Date:

Company:

Phone:

Cultured Stone Representative:

Date:

CULTURED STONE
Certificate of Quality

<i>Date:</i>	
<i>Attn:</i>	
<i>Project Title:</i>	
<i>Product 1 (Stone Profile/Color):</i>	
<i>Product 2 (Stone Profile/Color):</i>	
<i>Architect:</i>	
<i>General Contractor:</i>	
<i>Masonry Contractor:</i>	

This document verifies that the product manufactured by Cultured Stone, for the project listed above, meets ASTM C1670 as required by the International Building Code and International Residential Codes for Adhered Manufactured Stone Masonry Veneer Units.

Sincerely,



Hector Monroy
Quality Manager

The Cultured Stone® collection of manufactured stone veneers is engineered to meet or exceed specifications for all major code approvals. Manufacturers who offer “just like” or a so-called “equivalent” to Cultured Stone manufactured stone veneer products should be asked to document claims of test results and research reports.

Complete copies of these Cultured Stone manufactured stone veneer building code evaluation reports, research reports, approvals and listings are available upon request:

- ICC-ES ESR-1364
- Tested and listed by Underwriters Laboratories, Inc.
- Texas Department of Insurance– Product Evaluation Report, EC-21
- Florida Product Approval FL15047

Note: Local building codes may vary; always check with your local building code authority prior to installation.

Results of tests conducted by an independent testing agency confirm that the Cultured Stone collection of manufactured stone veneers conforms to or exceeds ASTM C1670 as required by the International Building Code and International Residential Code.

MATERIALS

CEMENT	ASTM C 150
SAND	ASTM C 144 or C 33
AGGREGATE	ASTM C 33 or C 330 (except gradation), C 331

TESTING

SHEAR BOND TEST (ADHESION)	Tested in accordance with ASTM C 482	> 50 psi
WATER ABSORPTION	Tested in accordance with ASTM C140/C140M	9%–22% depending on texture
FREEZE/THAW CHARACTERISTICS	Testing procedures follow those outlined in ASTM C666	< 1.5% mass loss
COMPRESSIVE STRENGTH	Tested in accordance with ASTM C 39	≥ 2100 psi @ 28 days
UNIT WEIGHT	Density is determined in accordance with ASTM C 140	< 15 lbs. per square foot
THERMAL PROPERTIES	Tested in accordance with ASTM C 177-71	R-value is .620 based on a 1.75" thick sample. Average thickness may vary on different Cultured Stone veneer products, and the R-value will vary accordingly.
NONCOMBUSTIBLE	Tested and listed by Underwriters Laboratories, Inc.	Cultured Stone brand products showed zero flame spread and zero smoke development.

TECHNICALLY SPEAKING



VIDEO TUTORIALS

Our 20-part installation video series provides an in-depth and easy-to-follow breakdown of manufactured stone veneer installation techniques and best practices straight from our stone experts.

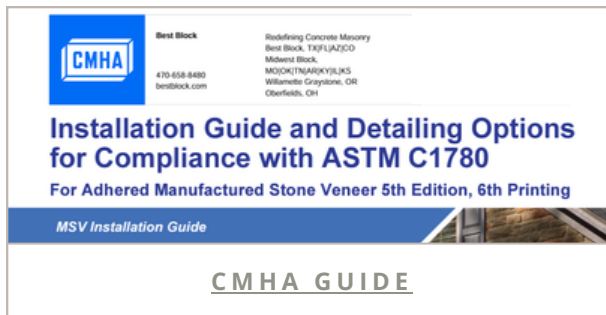
WATCH VIDEOS

culturedstone.com/technically-speaking

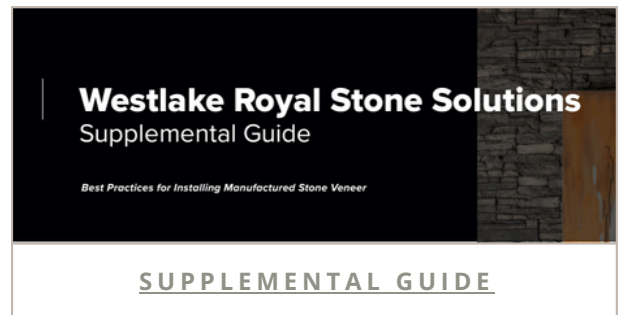
INSTALLATION GUIDES

The Concrete Masonry & Hardscapes Association (CMHA) sets the industry standard for MSV installation. Our Supplemental and Large Format guides detail best practices and techniques directly from our experts.

culturedstone.com/resources



CMHA GUIDE



SUPPLEMENTAL GUIDE



LARGE FORMAT GUIDE



COORDINATING COLOR GUIDE

MAKE A STATEMENT WITH STONE



TOP PRODUCTS

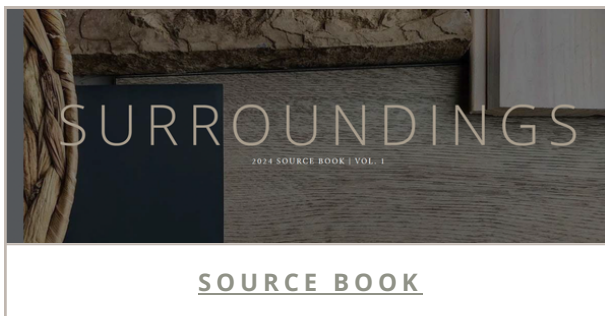
- [Southern LedgeStone](#)
- [Country LedgeStone](#)
- [Hewn Stone™](#)
- [Pro-Fit® Alpine LedgeStone](#)
- [Handmade Brick](#)

VIEW ALL STONE

culturedstone.com/products

GET INSPIRED

Explore a variety of online resources to spark your creativity with Cultured Stone manufactured stone veneer. From design galleries to expert tips, find the inspiration you need to bring your vision to life.



culturedstone.com/brochure



culturedstone.com/productguide



culturedstone.com/visualizer



culturedstone.com/design

CMHA CERTIFIED PARTNERS

As a trusted partner with the Concrete Masonry & Hardscapes Association (CMHA), our teams put an unmatched depth of technical expertise and practical resources in your hands.



TESTED. TRUSTED. CERTIFIED.

Cultured Stone has worked with the CMHA to certify each of our facilities and manufactured stone veneer products. CMHA-Certified Manufactured Stone Veneer products help architects, builders, and spec writers add efficiency and confidence to their process with trusted materials and the backing of qualified Manufactured Stone Veneer professionals for troubleshooting.

culturedstone.com/astm-c1670



WHY CHOOSE MSV CERTIFIED PRODUCTS

Consistency: Nationally-recognized requirements and product certifications ensure consistency in manufacturing, eliminating the range of quality and simplifying the specification process.

Quality: A higher standard requires manufacturers to commit to quality in production through a documented quality system program, guaranteeing a dependable, long-lasting result.

Reliability: Testing must be performed by qualified third-party labs, and compliance with certification requirements ensure products meet current building code requirements.

Reputation & Expertise: Companies with certified products show credibility, knowledge, and experience, guaranteeing you are using the most trusted materials in the market.

Differentiation: Choosing products that meet standard requirements proves a commitment to quality and efficiency, helping you stand out from the competition.

CERTIFIED INSTALLER PROGRAM

Join the ranks of elite installers and get certified through our two-day training program in partnership with the Concrete Masonry & Hardscapes Association.

culturedstone.com/certified-installer

ABOUT THE PROGRAM

As certified trainers of the CMHA, we strive to offer support, knowledge and technical expertise at your fingertips. The Certified Installer Program promotes fundamental manufactured stone veneer installation guidelines with industry best practices and is considered a highly valued credential by consumers and the broader marketplace.



BENEFITS

- Differentiation in the market with higher credibility of quality work
- Qualify to bid future projects requiring CMHA certification
- Opportunity to be listed on the CMHA website
- Drive more business as a trusted installer of Manufactured Stone Veneer
- Upon passing, certification lasts 3 years with CMHA

BUILDING CODES HAVE CHANGED

Our manufactured stone veneer products have been tested and certified to meet or exceed the standards lined out in ASTM C1670.

culturedstone.com/astm-c1670



WHAT IS ASTM C1670?

ASTM C1670 is the standard for Manufactured Stone Veneer (MSV) that provides guidance and direction for trade professionals who are looking to use products that are manufactured with quality and durability in mind. Created by a team of construction experts, ASTM C1670 establishes a clear guideline for manufacturers to demonstrate compliance in their materials through various testing methods, such as Compressive Strength and Freeze/Thaw Durability.

WHY IS IT IMPORTANT?

Masonry adds resilience, beauty and a sense of permanence to any project and is one of the most prolific building materials. The standardization of ASTM C1670 solidifies MSV's presence and viability in today's building ecosystem. Builders and contractors will be looking to product manufacturers more and more to demonstrate adherence to the standard at each of their manufacturing facilities which then establishes confidence in the long-term use and durability of the MSV products themselves.



CARE + MAINTENANCE

We pride ourselves in designing stone veneer that not only enhances the beauty of your space but is also easy to maintain. To ensure the longest lifespan and enduring performance of our stone veneer, please follow the care and maintenance tips outlined below.



CLEANING

To clean dirt or other particles first try a simple soft bristle brush. If necessary, use a solution of mild detergent with water and scrub the surface with a soft bristle brush. Rinse with clean water to remove any cleaning solution that might remain on the surface. If the stone has a white stain deposit (efflorescence), see below recommendations. Never use wire brushes, acid cleaners, power washers, bleach, paint remover, or any other type of concrete cleaner.

EFFLORESCENCE

When efflorescence occurs, as it does with many masonry products, it is usually the result of moisture migration through the masonry substrate. Once the moisture is on the masonry surface, it evaporates, depositing dissolved salts in the form of efflorescence. Efflorescence naturally disappears over time as long as the moisture source is controlled or eliminated. If the stain will not wash off, do not apply chemicals or cleaners to the stone. Call Westlake Royal Stone Solutions customer service to discuss optional solutions.

PROTECTIVE TREATMENT

It is not required to seal our manufactured stone veneer. A sealer will provide added protection and will usually be easier to clean if the surface becomes dirty. If you choose to use a sealer for added protection, use only a silane or siloxane-based penetrating, breathable masonry sealer.

Note: A sealer may affect the stone color and may create a gloss or matte finish. Always test a small area beforehand.



SECTION 04 73 00
MANUFACTURED STONE VENEER

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Cultured Stone Veneer.
- B. Architectural Trim Stone.

1.2 RELATED SECTIONS

- A. Section 04 20 00 – Unit Masonry.
- B. Section 06 10 00 – Rough Carpentry.
- C. Section 05 40 00 – Cold-Formed Metal Framing.
- D. Section 07 27 00 – Air Barriers.
- E. Section 07 28 00 – Underlayments.*
- F. Section 07 62 00 – Sheet Metal Flashing & Trim.
- G. Section 07 90 00 – Joint Protection.
- H. Section 09 2116 – Gypsum Board Assemblies – Cementitious Backer Board & Gypsum Sheathing.
- I. Section 09 24 13 – Adobe Finish.
- J. Section 10 30 00 – Fireplaces and Stoves.

1.3 REFERENCES

- A. ANSI A118.4 – American National Standard Specification for Modified Dry-Set Cement Mortar
- B. ANSI A118.15 – American National Standard Specification for Improved Modified Dry-Set Cement Mortar
- C. ASTM C140/C140M – Standard Test Method for Sampling and Testing Concrete Masonry Units and Related Units
- D. ASTM C270 – Standard Specification for Mortar for Unit Masonry.
- E. ASTM C847 – Standard Specification for Metal Lath
- F. ASTM C933 – Standard Specification for Welded Wire Lath
- G. ASTM C1714/C1714M – Standard Specification for Preblended Dry Mortar Mix for Unit Masonry
- H. ASTM D226/D226M – Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing
- I. ASTM E2556/E2556M – Standard Specification for vapor Permeable Flexible Sheet Water-Resistive Barriers Intended for Mechanical Attachment
- J. ASTM C 39 – Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
- K. ASTM C 177 – Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.
- L. ASTM C 482 – Standard Test Method for Bond Strength of Ceramic Tile to Portland Cement.

- M. ASTM C 1670 – Standard Specification for Adhered Manufactured Stone Masonry Veneer Units.
- N. ASTM C 1780 – Standard Practice for Installation Methods for Adhered Manufactured Stone Masonry
- O. UL 723 – Standard for Safety for Surface Burning Characteristics of Building Materials.
- P. ICC ES AC 51 Acceptance Criteria for Manufactured Stone Veneer
- Q. Concrete Masonry Hardscapes Association (CMHA): Installation Guide for Adhered Manufactured Stone Veneer
- R. US Department of Housing and Urban Development (HUD): Material Release Numbers 910Fs

1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. Building Code Compliance:
 - 1. ICC-ES ESR-1364
 - 2. Tested and listed by Underwriters Laboratories, Inc.
 - 3. Texas Department of Insurance– Product Evaluation Report, EC-21
 - 4. Florida Product Approval FL15047
 - 5. US Department of Housing & Urban Development (HUD): MR 1316.
- B. Average Recycled Content of 60 percent validated by 3rd party analysis.
- C. Backup Wall System and installation method for manufactured stone veneer shall meet the requirements of ASTM C 1780–Standard Practice for Installation Methods for Adhered Manufactured Stone Masonry Veneer.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 – Administrative Requirements.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Test Report for each MSV profile showing compliance with ASTM C1670.
 - 2. Preparation instructions and recommendations.
 - 3. Storage and handling requirements and recommendations.
 - 4. Installation standards and methods.
- C. Shop Drawings: Submit drawings depicting proper installation and flashing techniques. Coordinate locations with those found on the Drawings.
- D. Selection Samples: For each finish product specified, two complete sets of color sample representing manufacturer's full range of available colors and textures.
- E. Verification Samples: For each finish product specified, two samples, minimum size 8 inches (203 mm) square, representing actual product, color, and texture.
- F. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for cleaning and repair of components.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Manufacturer who is a current member of Concrete Masonry Hardscapes Association (CMHA) with a minimum of 5 years documented experience manufacturing and marketing all Manufactured Stone products of the type specified in this section.
- B. Installer Qualifications:
 - 1. Company with documented experience in installation of manufactured masonry of the type specified including at least five projects within a 400 mile (650km) radius of the Project.
 - 2. Installation Company must supply at least one site foreman who is a Certified MSV Installer by the Concrete Masonry and Hardscapes Association to manage daily installation work.
- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish panel of size and location designated by Architect.
 - 2. Minimum size 3 foot by 3 foot and showing proper layering of WRB, rainscreen if required, weep screed, flashing, and transition to adjacent materials anticipated.
 - 3. Do not proceed with remaining work until workmanship, color, texture and pattern are approved by Architect.
 - 4. Refinish mock-up area as required to produce acceptable work.
 - 5. Approved mock-up shall remain on site until all work has been accepted.
- D. Pre-Installation Conference:
 - 1. Contractor shall arrange a meeting not less than thirty days prior to starting stone veneer work.
 - 2. Attendance: Contractor, Architect/Owner Representative, veneer stone installer and manufacturer's representative.

1.7 DELIVERY, STORAGE & HANDLING

- A. Store and handle products in conformance with the manufacturer's requirements and recommendations.
- B. Store products off the ground on pallets in manufacturer's unopened packaging until ready for installation.
- C. Protect materials from precipitation and freezing temperatures. Product with visible frozen moisture should not be installed.

1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
- B. Cold weather installations: Maintain materials and ambient temperature at minimum 40 degrees F (4 degrees C) prior to, during, and 48 hours after installation.
- C. Hot weather installations: Protect installation from rapid drying by using clean water to mist the scratch coated surface and the backs of the masonry veneer for installations that exceed 90 degrees (32 degrees C). The surfaces should appear damp but free from standing water.

1.9 WARRANTY

- A. Provide manufacturer's 50-year limited warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A.** Acceptable Manufacturer: **Cultured Stone®**, which is located at: 350 Tower Rd, American Canyon, CA 94503; Toll Free Tel: (800) 255-1727; Email to request info: cs@westlake.com; Web: www.culturedstone.com
- B.** Substitutions: Not permitted.
- C.** Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 – Product Requirements.

2.2 MANUFACTURED STONE VENEER–GENERAL

- A.** Manufactured Stone Veneer Performance Requirements: Conforming to ASTM C 1670 and as follows:
 - 1. Compressive Strength: Not less than 1800 psi (12.4 MPa) average for 5 specimens and not less than 2100 psi (14.4 MPa) for individual specimen when tested in accordance with ASTM C 39.
 - 2. Bond Between Manufactured Masonry Unit, Mortar and Backing: Not less than 50 psi (345 kPa) when tested in accordance with ASTM C 482 using Type S mortar.
 - 3. Thermal Resistance: R-value of not less than 0.355 per inch (25.4 mm) of thickness when tested in accordance with ASTM C 177.
 - 4. Freeze/Thaw: No disintegration and less than 1.5% weight loss when tested in accordance with ASTM C 666.
 - 5. Water Absorption: Tested in accordance with ASTM C140/C140M 9-22% depending on density value.
 - 6. Unit Weight: Not more than 15 psf (73 kg/m2) saturated.
 - 7. Surface Burning Characteristics: Not more than the following when tested in accordance with UL 723:
 - 8. UV Stable - Mineral oxide pigments.
- B.** Certifications:
 - 1. ICC Evaluation Service - ASTM C 1670.
 - 2. ICC ES AC 51 Acceptance Criteria for Manufactured Stone Veneer
 - 3. ICC Evaluation Service - Evaluation Report ESR 1364.
 - 4. HUD Material Release Number 1316c
 - 5. UL Tested for Surface Burning Characteristics
 - 6. Texas Department of Insurance Product Evaluation EC-21
 - 7. Florida Product Approval Number FL15047

2.3 CULTURED STONE VENEER

Materials

A. Stone Veneer & Brick Veneer:

SELECT DESIRED PROFILE FROM THE CULTURED STONE WEBSITE [PRODUCTS](#) PAGE; INSERT PROFILE AND COLOR SPECIFICATION BELOW.

1. Profile: _____ . Include matching corner pieces.
2. Color: _____ .

B. Accessories

SELECT DESIRED STONE ACCESSORIES FROM THE CULTURED STONE WEBSITE [ACCESSORIES](#) PAGE; INSERT DESIRED ACCESSORIES BELOW AND INSERT TEXTURE IF REQUIRED. VERIFY THAT DIMENSIONS, IF REQUIRED, ARE SHOWN ON THE DRAWINGS.

1. Stone Accessories: _____ .
2. Color: _____ .

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared in conformance with ASTM C 1780 for the backup wall system indicated on the Drawings.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install manufactured stone masonry veneer in accordance with CMHA Installation Guide for Adhered Manufactured Stone Veneer, ASTM C 1780 and applicable Codes.
- C. Install/Apply Related Materials in accordance with type of substrate and manufactured stone veneer manufacture's installation instructions.
- D. General:
 1. Walls: Provide with Single Color and Texture throughout.
 2. Walls: Provide with Blended Color / Texture specified.
 3. Special Shapes: Color to match stones specified.
 - a. Provide Stones manufactured specifically for installation at corners where located on the Drawings.
 - b. Install Quoins on corners as indicated on the Drawings.
 4. Mortar Joints
 - a. Style:
 - 1) Tight Fit joints.

- 2) Standard 1/2 inch tooled
- 3) Wide joint
- 4) Wide Overgrout
- b. Strike all grout joints flush.
- c. Tool all grout joints.
- d. Overgrout all grout joints.
- 5. Stone Direction:
 - a. Random placement
 - b. Horizontal placement
 - c. Vertical placement
- 6. Windows, Doors & Wall Openings:
 - a. Install field stones at wall openings with prescribed gap for backer rod and sealant as specified in drawings and building codes.
 - b. Install specified trim stones where located on the Contract Drawings.
- 7. Sills: Install Sills where located on the Drawings.
- 8. Caps: Install Capstones where located on the Drawings.
- E. Seal all joints at wall openings and penetrations with a sealant approved for use with masonry products.
- F. Flashing: Coordinate with Flashings specified in Section 07 62 00 - Sheet Metal Flashing and Trim.
- G. Rainscreen: Coordinate with Rainscreens specified in Section 07 27 00 - Air Barriers.

3.4 FIELD QUALITY CONTROL

- A. Manufacturer's Field Services: Request a Manufacturer's Field Service Representative site visits for pre-construction meeting to review installation guidelines.
- B. Provide periodic site visits as requested by Architect. Report any discrepancies to the Contractor with copies to the Architect within 24 hours of each visit.

3.5 CLEANING

- A. Clean manufactured masonry in accordance with manufacturer's installation instructions

3.6 PROTECTION

- A. Protect finished work from rain and work on either side of the wall during and for 48 hours following installation.
- B. Protect installed products until completion of project.
- C. Clean prior to project closeout.
- D. Touch-up, repair or replace damaged products before Substantial Completion.

**END OF
SECTION**

ICC-ES Evaluation Report

ESR-1364

Reissued October 2025

This report also contains:

- [CA Supplement](#)

Subject to renewal October 2026

ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.

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DIVISION: 04 00 00 — MASONRY Section: 04 71 00 — Manufactured Brick Masonry Section: 04 73 00 — Manufactured Stone Masonry	REPORT HOLDER: WESTLAKE ROYAL STONE LLC dba WESTLAKE ROYAL STONE SOLUTIONS	EVALUATION SUBJECT: CULTURED STONE®, CULTURED BRICK® AND PROSTONE®	
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1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

- 2024, 2021, 2018 and 2015 [International Building Code® \(IBC\)](#)
- 2024, 2021, 2018 and 2015 [International Residential Code® \(IRC\)](#)

Properties evaluated:

- Interior finish and trim classification
- Veneer strength and durability

1.2 Evaluation to the following green code(s) and/or standards:

- 2025 and 2022 [California Green Building Standards Code \(CALGreen\)](#), Title 24, Part 11
- 2020, 2015, 2012 and 2008 ICC 700 [National Green Building Standard™](#) (ICC 700-2020, ICC 700-2015, ICC 700-2012 and ICC 700-2008)

Attributes verified:

See Section 3.0

2.0 USES

Cultured Stone®, Cultured Brick® and ProStone® are used as adhered, non-load-bearing exterior veneer or as an interior finish and trim on wood-framed or light gage steel stud walls, concrete walls or masonry walls.

3.0 DESCRIPTION

Cultured Stone®, Cultured Brick® and ProStone® are precast concrete products made to resemble natural stone or brick in color and texture. The concrete is comprised of cement, aggregate, water, admixtures, and mineral oxide colors. The veneer units are molded and cured at the manufacturing facility. See [Table 1](#) for evaluated styles.

The stone veneer has a Class A finish rating in accordance with IBC Section 803.1.2 (2015 IBC Section 803.1.1) and complies with the flame-spread and smoke-development requirements of IRC Section R302.9.

The attributes of the stone veneer have been verified as conforming to the requirements of (i) CALGreen Section A4.405.1.3 for prefinished building materials and Section A5.406.1.2 for reduced maintenance; (ii) ICC

700-2020, ICC 700-2015 and ICC 700-2012 Sections 602.1.6 and 11.602.1.6 for termite-resistant materials; (iii) ICC 700-2020 Sections 601.7 and 11.601.7 and ICC 700-2015 and ICC 700-2012 Sections 601.7, 11.601.7, and 12.1(A).601.7 for site-applied finishing materials; and (iv) ICC 700-2008 Section 602.8 for termite-resistant materials and Section 601.7 for site-applied finishing materials. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. These codes or standards often provide supplemental information as guidance.

4.0 INSTALLATION

4.1 Design:

The veneer units described in this report comply with ASTM C1670 which is referenced in TMS 402-22 (for the 2024 IBC); 2021 and 2018 IBC Section 2103.1; and 2024, 2021 and 2018 IRC Section R606.2.6. The veneer units also comply with the unit dimensional limitations for prescriptively designed adhered veneer in Section 13.3.2.2 of TMS 402-22.

The saturated weight of the veneer units does not exceed 15 pounds per square foot (73.2 kg/m²). The weight of the mortar setting bed and scratch coat are outside the scope of this report.

Under the 2024 IBC and IRC, the detailing of the veneer must address the effects of differential movement, as required by Section 13.1 of TMS 402-22. Deflection of horizontal members supporting the veneer must be limited in accordance with Section 13.1.2.3 of TMS 402-22. Expected out-of-plane deflection of the supporting wall must comply with Section 13.3.1.2 of TMS 402-22.

For installation in accordance with the 2021, 2018 and 2015 IBC, supporting wall construction must be designed to support the weight of the veneer system. Horizontal framing members, such as lintels and headers, which support the veneer, must be designed to limit deflection to $1/600$ of the span.

Expansion or control joints used to limit the effect of differential movement of veneer supports must be specified by the architect, designer or veneer manufacturer, in that order. Consideration must be given to movement caused by temperature changes, shrinkage, creep and deflection.

In jurisdictions adopting the IRC, where the seismic provisions of Section R301.2.2 apply, the average weight of the wall supporting the veneer, including the weight of the veneer system, must be determined. When this weight exceeds the applicable limits of IRC Section R301.2.2.2, an engineered design of the wall construction must be performed in accordance with IRC Section R301.1.3.

4.2 Installation:

Installation of the stone veneer must comply with this report, the manufacturer's published installation instructions, and the applicable code. The manufacturer's published installation instructions must be available at the jobsite at all times during installation. Installation must be in accordance with IBC Section 1404.11 (2021 and 2018 IBC Section 1404.10; 2015 IBC Section 1405.10) or IRC Section R703.12, as applicable.

4.3 Special Inspection:

Under the 2024 IBC, special inspection requirements for installation of adhered masonry veneer are addressed in Table 4 of TMS 602-22, referenced in 2024 IBC Section 1705.4.

5.0 CONDITIONS OF USE:

The Cultured Stone[®], Cultured Brick[®] and ProStone[®] veneers described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Cultured Stone[®], Cultured Brick[®] and ProStone[®] must be manufactured and identified as described in this report.
- 5.2 Cultured Stone[®], Cultured Brick[®] and ProStone[®] are manufactured under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with the [ICC-ES Acceptance Criteria for Adhered Manufactured Stone Masonry Veneer \(AC51\)](#), dated June 2018 (editorially revised February 2024).
- 6.2 Data addressing surface burning characteristics.

7.0 IDENTIFICATION

- 7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-1364) along with the name, registered trademark, or registered logo of the report holder must be included in the product label.
- 7.2 In addition, the Cultured Stone[®] described in this report is identified by the initials “C.S.V.” cast into the side of each piece of stone and packages of veneer bear the brand name (Cultured Stone[®], Cultured Brick[®] or ProStone[®]) and the style name.
- 7.3 The report holder’s contact information is the following:

WESTLAKE ROYAL STONE LLC dba WESTLAKE ROYAL STONE SOLUTIONS
2801 POST OAK BLVD. SUITE 600
HOUSTON, TEXAS 77056
(855)769-2585
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TABLE 1—EVALUATED STYLES

PRODUCT NAME	STYLES
Cultured Stone [®]	Ancient Villa LedgeStone, Cast-Fit 12x24, Cast-Fit 8 x16, Cobblefield, Coral Stone, Country LedgeStone, Del Mare LedgeStone, Dressed Fieldstone, Drystack LedgeStone, European Castle Stone, Hewn Stone 308, Hewn Stone 314, Hewn Stone 514, Hewn Stone 522, Hewn Stone 822, Limestone, Old Country Fieldstone, Pro-Fit Alpine LedgeStone, Pro-Fit LedgeStone, Pro-Fit Modera LedgeStone, Pro-Fit Terrain LedgeStone, River Rock, Rockface, Southern LedgeStone, Split Face, Stream Stone
Cultured Brick [®]	Handmade Brick, Used Brick
ProStone [®]	Aged LedgeStone, Carolina Collection LedgeStone, Easy Fit Savannah LedgeStone, Field Rubble, Fieldstone, LedgeStone, River Rock, Rough Ledge, Tuscan Cobble

ICC-ES Evaluation Report

ESR-1364 CA Supplement

Reissued October 2025

This report is subject to renewal October 2026.

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A Subsidiary of the International Code Council®

DIVISION: 04 00 00—MASONRY

Section: 04 71 00—Manufactured Brick Masonry

Section: 04 73 00—Manufactured Stone Masonry

REPORT HOLDER:

WESTLAKE ROYAL STONE LLC dba WESTLAKE ROYAL STONE SOLUTIONS

EVALUATION SUBJECT:

CULTURED STONE®, CULTURED BRICK® AND PROSTONE®

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the Cultured Stone®, Cultured Brick® and ProStone® products, described in ICC-ES evaluation report [ESR-1364](#), have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2022 *California Building Code*® (CBC)

For evaluation of applicable Chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2022 *California Residential Code*® (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The Cultured Stone®, Cultured Brick® and ProStone® products described in Sections 2.0 through 7.0 of the evaluation report [ESR-1364](#), comply with CBC Sections 803.1.1, 1404.10.1, 2101.2.1 and 2103.1, provided the design and installation are in accordance with the 2021 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapter 14, as applicable.

2.1.1 OSHPD:

The applicable OSHPD Sections and Chapters of the CBC are beyond the scope of this supplement.

2.1.2 DSA:

The applicable DSA Sections and Chapters of the CBC are beyond the scope of this supplement.

2.2 CRC:

The Cultured Stone®, Cultured Brick® and ProStone® products described in Sections 2.0 through 7.0 of the evaluation report [ESR-1364](#), comply with the flame spread and smoke developed requirements of CRC Section R302.9 and with CRC Sections R301, R606.2.6 and R703.12, provided the design and installation are in accordance with the 2021 *International Residential Code*® (IRC) provisions noted in the evaluation report.

This supplement expires concurrently with the evaluation report, reissued October 2025.



Listing and Technical Evaluation Report™

A Duly Authenticated Report from an Approved Agency

Report No: 1312-01



Issue Date: February 5, 2014

Revision Date: March 16, 2026

Subject to Renewal: April 1, 2027

Westlake Royal Stone Adhered Masonry Veneer Applications Over Continuous Insulation

Trade Secret Report Holder:

Westlake Royal Stone, LLC

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Website: www.westlakeroyalbuildingproducts.com

Email: bruce.swartz@westlake.net

Additional Listees:

Eldorado Stone® 350 Tower Rd American Canyon, CA 94503 Camino Martin 2500 Ranchos Dos Palmas Baja California, Mexico 22650 181 Antrim Commons Dr Greencastle, PA 17225-1621	Dutch Quality Stone® 350 Tower Rd American Canyon, CA 94503 18012 Dover Rd Mount Eaton, OH 44659 8300 County Rd 189 Holmesville, OH 44633	Cultured Stone® 350 Tower Rd American Canyon, CA 94503 8300 County Rd 189 Holmesville, OH 44633 590 Ecology Ln Chester, SC 29706	StoneCraft Industries® 8300 County Rd 189 Holmesville, OH 44633 181 Antrim Commons Dr Greencastle, PA 17225-1621
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CSI Designations:

DIVISION: 04 00 00 - MASONRY

Section: 04 70 00 - Manufactured Masonry

Section: 04 73 00 - Manufactured Stone Masonry

1 Innovative Products Evaluated¹

1.1 Westlake Royal Stone Products:

- 1.1.1 Eldorado Stone Adhered Masonry Veneer
- 1.1.2 Dutch Quality Stone Adhered Masonry Veneer
- 1.1.3 Cultured Stone Adhered Masonry Veneer
- 1.1.4 StoneCraft Industries Adhered Masonry Veneer

2 Product Description and Materials

2.1 The innovative products evaluated in this report are shown in **Figure 1**.



Figure 1. Examples of Westlake Royal Stone Products Product Finishes

2.2 Westlake Royal Stone Products are manufactured, precast, concrete veneer products made from Portland cement, aggregate, water, admixtures, and coloring used as adhered, non-bearing exterior veneer or as an interior finish.

2.3 Westlake Royal Stone Products have the following characteristics:

- 2.3.1 Color and texture similar to various stone or brick surfaces (Examples are shown in **Figure 1**).
- 2.3.2 Patterns have a maximum per unit area of 720 square inches (0.465 m²).
- 2.3.3 Patterns have a maximum per unit dimension of 36" (914 mm).
- 2.3.4 Patterns have a maximum average thickness of 1.65" (42 mm).
- 2.3.5 Patterns have a nominal oven dry density less than 105 lb/ft³ (1,682 kg/m³) and a maximum saturated weight not to exceed 15 lb/ft² (73.2 kg/m²).
- 2.3.6 The total cladding system weight, including the mortar setting bed, lath, and scratch coat, is a maximum of 25 lb/ft² (122 kg/m²) when fully saturated.
- 2.3.7 Product profiles and information is available in the appendices:
 - 2.3.7.1 **Appendix A.** Eldorado Stone
 - 2.3.7.2 **Appendix B.** Dutch Quality Stone
 - 2.3.7.3 **Appendix C.** Cultured Stone
 - 2.3.7.4 **Appendix D.** Stone Craft

2.4 As needed, review material properties for design in **Section 6** and the regulatory evaluation in **Section 8**.

3 Definitions²

- 3.1 New Materials³ are defined as building materials, equipment, appliances, systems, or methods of construction, not provided for by prescriptive and/or legislatively adopted regulations, known as alternative materials.⁴ The design strength and permissible stresses shall be established by tests⁵ and/or engineering analysis.⁶
- 3.2 Duly authenticated reports⁷ and research reports⁸ are test reports and related engineering evaluations that are written by an approved agency⁹ and/or an approved source.¹⁰
 - 3.2.1 This report utilizes intellectual property and/or trade secrets to create public domain material properties for commercial end-use.
 - 3.2.1.1 This report protects confidential Intellectual Property and trade secrets under the regulation, 18.U.S.Code.90, also known as Defend Trade Secrets Act of 2016 (DTSA).¹¹



- 3.3 An approved agency is “approved” when it is ANAB ISO/IEC 17065 accredited. DrJ Engineering, LLC (DrJ) is accredited and listed in the ANAB directory.
- 3.4 An approved source is “approved” when a professional engineer (i.e., Registered Design Professional, hereinafter RDP) is properly licensed to transact engineering commerce. The regulatory authority governing approved sources is the state legislature via its professional engineering regulations.¹²
- 3.5 Testing and/or inspections conducted for this duly authenticated report were performed by an ISO/IEC 17025 accredited testing laboratory, an ISO/IEC 17020 accredited inspection body, and/or a licensed RDP.
- 3.5.1 The Center for Building Innovation (CBI) is ANAB¹³ ISO/IEC 17025 and ISO/IEC 17020 accredited.
- 3.6 The regulatory authority shall enforce¹⁴ the specific provisions of each legislatively adopted regulation. If there is a non-conformance, the specific regulatory section and language of the non-conformance shall be provided in writing¹⁵ stating the nonconformance and the path to its cure.
- 3.7 The regulatory authority shall accept duly authenticated reports from an approved agency and/or an approved source with respect to the quality and manner of use of new materials or assemblies as provided for in regulations regarding the use of alternative materials, designs, or methods of construction.¹⁶
- 3.8 ANAB is an International Accreditation Forum (IAF) Multilateral Recognition Arrangement (MLA) signatory. Therefore, recognition of certificates and validation statements issued by conformity assessment bodies accredited by all other signatories of the IAF MLA with the appropriate scope shall be approved.¹⁷ Thus, all ANAB ISO/IEC 17065 duly authenticated reports are approval equivalent,¹⁸ and can be used in any country that is an MLA signatory found at this link: <https://iaf.nu/en/recognised-abs/>
- 3.9 Approval equity is a fundamental commercial and legal principle.¹⁹

4 Applicable Local, State, and Federal Approvals; Standards; Regulations²⁰

4.1 Local, State, and Federal

- 4.1.1 Approved in all local jurisdictions pursuant to ISO/IEC 17065 duly authenticated report use, which includes, but is not limited to, the following featured local jurisdictions: Austin, Baltimore, Broward County, Chicago, Clark County, Dade County, Dallas, Detroit, Denver, DuPage County, Fort Worth, Houston, Kansas City, King County, Knoxville, Las Vegas, Los Angeles City, Los Angeles County, Miami, Nashville, New York City, Omaha, Philadelphia, Phoenix, Portland, San Antonio, San Diego, San Jose, San Francisco, Seattle, Sioux Falls, South Holland, St. Louis County, Texas Department of Insurance, and Wichita.²¹
- 4.1.2 Approved in all state jurisdictions pursuant to ISO/IEC 17065 duly authenticated report use, which includes, but is not limited to, the following featured states: California, Florida, New Jersey, Oregon, New York, Texas, Washington, and Wisconsin.²²
- 4.1.3 Approved by the Code of Federal Regulations Manufactured Home Construction: Pursuant to Title 24, Subtitle B, Chapter XX, Part 3282.14²³ and Part 3280²⁴ pursuant to the use of ISO/IEC 17065 duly authenticated reports.
- 4.1.4 Approved means complying with the requirements of local, state, or federal legislation.

4.2 Regulations

- 4.2.1 *IBC – 18, 21, 24: International Building Code®*
- 4.2.2 *IRC – 18, 21, 24: International Residential Code®*
- 4.2.3 *FBC-B—20, 23: Florida Building Code²⁵ – Building (FL 41520)*
- 4.2.4 *FBC-R—20, 23: Florida Building Code²⁵ – Residential (FL 41520)*



4.3 Standards

- 4.3.1 *ACI 318: Building Code Requirements for Structural Concrete*
- 4.3.2 *AISI S100: North American Specification for the Design of Cold-formed Steel Structural Members*
- 4.3.3 *ANSI/AWC NDS: National Design Specification (NDS) for Wood Construction*
- 4.3.4 *ANSI/AWC SDPWS: Special Design Provisions for Wind and Seismic*
- 4.3.5 *ANSI/AWC WFCM: Wood Frame Construction Manual for One- and Two-Family Dwellings*
- 4.3.6 *ASCE/SEI 7: Minimum Design Loads and Associated Criteria for Buildings and Other Structures*
- 4.3.7 *ASTM C90: Standard Specification for Loadbearing Concrete Masonry Units*
- 4.3.8 *ASTM C150: Standard Specification for Portland Cement*
- 4.3.9 *ASTM C578: Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation*
- 4.3.10 *ASTM C1063: Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster*
- 4.3.11 *ASTM C1289: Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board*
- 4.3.12 *ASTM D5206: Standard Test Method for Windload Resistance of Rigid Plastic Siding*
- 4.3.13 *ASTM E330: Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls by Uniform Static Air Pressure Difference*
- 4.3.14 *ASTM F1667: Standard Specification for Driven Fasteners: Nails, Spikes, and Staples*

5 Listed²⁶

- 5.1 Equipment, materials, products, or services included in a List published by a nationally recognized testing laboratory (e.g., CBI), an approved agency (e.g., CBI and DrJ), and/or and approved source (e.g., DrJ), or other organization(s) concerned with product evaluation (e.g., DrJ), that maintains periodic inspection (e.g., CBI) of production of listed equipment or materials, and whose listing states either that the equipment or material meets nationally recognized standards or has been tested and found suitable for use in a specified manner.

6 Tabulated Properties Generated from Nationally Recognized Standards

- 6.1 Westlake Royal Stone Products are used as an exterior wall covering in accordance with the applicable sections of IBC Chapter 14, IBC Chapter 25, and IRC Section R703. They are installed over wood or steel framed walls and Wood Structural Panels (WSP) capable of supporting the imposed loads in accordance with IBC Section 1609 and IRC Section R301.2.1, including all required transverse wind loads.
- 6.2 Westlake Royal Stone Products are used as an exterior wall covering installed over wood-framed or steel framed walls: (1) where the WSP is over sheathed with continuous insulation, or (2) onto masonry or concrete walls that are sheathed with continuous insulation. The maximum foam thicknesses for various framing and fastener types are as shown in **Table 1**, **Table 2**, and **Table 3**.



Table 1. Fastener Requirements to Support Cladding Weight for Westlake Royal Stone Products
Installation Over Continuous Insulation – Wood^{8,11,12}

Fastener Penetration Into	Fastener Type ⁴	Substrate	Minimum Fastener Length ⁷ (in)	Maximum Distance from Face of Framing to Underside of Fastener Head ^{5,6} (in) (GAP)	Maximum Vertical Spacing (in) of Fasteners Along Each Stud ¹³					
					Maximum Cladding Weight (psf)					
					5	10	15	18	22	25
Wood ^{2,3}	8d nail (0.131 in. dia.)	Lath ¹ /Mortar	See table footnote 4	≤ 1 ¹ / ₈	7	7	7	7	7	7
			2 ¹ / ₂	1 ⁵ / ₈	7	7	7	7	6	5
	12d nail (0.148 in. dia.)		3 ¹ / ₄	≤ 1 ⁵ / ₈	7	7	7	7	7	7
	TRUFAST® SIP TP ¹⁰		See table footnote 4	≤ 3 ⁵ / ₈	7	7	7	7	7	7
			6	4 ¹ / ₈	7	7	7	7	7	6
			6 ¹ / ₂	4 ⁵ / ₈	7	7	7	7	7	6
	TRUFAST SIP LD ¹⁰		See table footnote 4	≤ 3 ⁵ / ₈	7	7	7	7	7	7
	HeadLOK® ⁹		See table footnote 4	≤ 3 ¹ / ₈	7	7	7	7	7	7
Wood ^{2,3}	TRUFAST SIP TP ¹⁰	Permabase or Durarock	2 ¹ / ₂	≤ 7 ⁷ / ₈	8	8	8	8	8	8
			3	1 ¹ / ₈	8	8	8	8	8	7
			3 ¹ / ₂	1 ⁵ / ₈	8	8	8	8	7	6
			4	2 ¹ / ₈	8	8	8	7	6	5
			4 ¹ / ₂	2 ⁵ / ₈	8	8	7	6	5	4
			5	3 ¹ / ₈	8	8	7	5	4	4
			5 ¹ / ₂	3 ⁵ / ₈	8	8	6	5	4	-
			6	4 ¹ / ₈	8	8	5	4	-	-
			6 ¹ / ₂	4 ⁵ / ₈	8	7	5	4	-	-
	TRUFAST SIP LD ¹⁰		See table footnote 4	≤ 7 ⁷ / ₈	8	8	8	8	8	8
			4	1 ¹ / ₈	8	8	8	8	8	7
			4 ¹ / ₂	1 ⁵ / ₈	8	8	8	8	7	6
			5	2 ¹ / ₈	8	8	8	7	6	5
			5 ¹ / ₂	2 ⁵ / ₈	8	8	8	6	5	4
			6	3 ¹ / ₈	8	8	7	5	4	4
			6 ¹ / ₂	3 ⁵ / ₈	8	8	6	5	4	-



**Table 1. Fastener Requirements to Support Cladding Weight for Westlake Royal Stone Products
Installation Over Continuous Insulation – Wood^{8,11,12}**

Fastener Penetration Into	Fastener Type ⁴	Substrate	Minimum Fastener Length ⁷ (in)	Maximum Distance from Face of Framing to Underside of Fastener Head ^{5,6} (in) (GAP)	Maximum Vertical Spacing (in) of Fasteners Along Each Stud ¹³					
					Maximum Cladding Weight (psf)					
					5	10	15	18	22	25
Wood ^{2,3}	HeadLOK ⁹	Permabase or Durarock	See table footnote 4	$\leq 2\frac{1}{8}$	8	8	8	8	8	8
			6	$2\frac{5}{8}$	8	8	8	8	8	7
			$6\frac{1}{2}$	$3\frac{1}{8}$	8	8	8	8	7	6

SI: 1 in = 25.4 mm, 1 psf = 0.0479 kN/m²

- Lath shall be minimum 2.5-lb. metal lath having a minimum 0.020" thickness and shall be attached in accordance with **Section 9.3.9**. Tensile strength of the lath steel shall be minimum 43,900-psi.
- Maximum stud spacing is 16" o.c. Expanded metal lath shall be attached with fasteners, vertically along each stud, at a maximum of 7" o.c.
- Wood studs shall have a minimum specific gravity of 0.42.
- Screws shall be corrosion-resistant, self-drilling, self-tapping and have a wafer or pancake head or a washer with a diameter sufficient to prevent the head from pulling through the openings in the lath and shall be in accordance with ASTM C954 or ASTM C1002. Screws shall penetrate the studs a minimum of 1¼" in addition to the tapered point.
- For thicker continuous insulation applications, design is required in accordance with accepted engineering practice.
- The total distance from the face of the stud to the underside of the fastener head shall not be more than that listed above. This includes any additional sheathing materials such as OSB, Gypsum, DensGlass®, plywood, lath, rain screen, or airspace incorporated in the design of the wall assembly. Where OSB or plywood is separately attached directly to the stud, the distance from framing to the underside of fastener head may be calculated from the face of the OSB or plywood.
- Not all fasteners are commonly available in the lengths specified. Proprietary fasteners of equal strength and size are permitted.
- This table provides some options evaluated by DrJ for the attachment of Westlake Royal Stone Products over foam plastic insulating sheathing. Other methods, such as the Cascadia Clip® or Knight® Wall Systems, may be considered, but have not been evaluated by DrJ.
- HeadLOK screws are proprietary fasteners manufactured by OMG®, Inc. (dba FastenMaster®). For HeadLOK fastener code-compliance issues, see the manufacturer product literature and code-compliance reports.
- TRUFast fasteners are proprietary fasteners manufactured by TRUFast®, LLC. For TRUFast fastener code-compliance issues, see the manufacturer product literature and code-compliance reports.
- Framing is defined as wood studs.
- Continuous insulation shall be foam plastic sheathing with a minimum compressive strength of 15-psi in accordance with ASTM C578 or ASTM C1289.
- Values were calculated considering only eccentric gravity loads. Where transverse load resistance is required, withdrawal resistance of the fastener shall also be considered.



Table 2. Fastener Requirements to Support Cladding Weight for Westlake Royal Stone Products
Installation Over Continuous Insulation – Steel^{7,8,9}

Fastener Penetration Into	Fastener Type ³	Substrate	Minimum Fastener Length ⁶ (in)	Maximum Distance from Face of Framing to Underside of Fastener Head ^{4,5} (in) (GAP)	Maximum Vertical Spacing (in) of Fasteners along Each Stud ¹⁰						
					Maximum Cladding Weight (psf)						
					5	10	15	18	22	25	
Steel Framing ² (33 mil, 20-gauge, 33-ksi)	#6 Screw	Lath ¹ / Mortar	1	5/8	7	7	7	7	7	6	
			1	7/8	7	7	7	7	6	6	
			1½	1 1/8	7	7	7	7	6	6	
			2	1 5/8	7	7	7	6	4	4	
			2½	2 1/8	7	7	6	4	4	-	
			3	2 5/8	7	4	-	-	-	-	
			3½	3 1/8	4	-	-	-	-	-	
	#8 Screw		1	5/8	7	7	7	7	7	7	7
			1	7/8	7	7	7	7	7	7	6
			1½	1 1/8	7	7	7	7	7	7	6
			2	1 5/8	7	7	7	7	6	4	4
			2½	2 1/8	7	7	7	6	4	4	4
			3	2 5/8	7	7	6	4	4	-	-
			3½	3 1/8	7	6	4	-	-	-	-
	#10 Screw		4	3 5/8	6	-	-	-	-	-	-
			See table footnote 3	≤ 1 1/8	7	7	7	7	7	7	7
			2	1 5/8	7	7	7	7	6	6	6
			2½	2 1/8	7	7	7	7	6	4	4
			3	2 5/8	7	7	7	6	4	4	4
			3½	3 1/8	7	7	6	4	4	-	-
			4	3 5/8	7	6	4	-	-	-	-
	#12 Screw		4½	4 1/8	7	4	-	-	-	-	-
			See table footnote 3	≤ 1 1/8	7	7	7	7	7	7	7
			2	1 5/8	7	7	7	7	7	6	6
			2½	2 1/8	7	7	7	7	6	6	6
			3	2 5/8	7	7	7	7	6	4	4



Table 2. Fastener Requirements to Support Cladding Weight for Westlake Royal Stone Products
Installation Over Continuous Insulation – Steel^{7,8,9}

Fastener Penetration Into	Fastener Type ³	Substrate	Minimum Fastener Length ⁶ (in)	Maximum Distance from Face of Framing to Underside of Fastener Head ^{4,5} (in) (GAP)	Maximum Vertical Spacing (in) of Fasteners along Each Stud ¹⁰							
					Maximum Cladding Weight (psf)							
					5	10	15	18	22	25		
Steel Framing ² (33 mil, 20-gauge, 33-ksi) Continued	#12 Screw Continued	Lath ¹ / Mortar	3½	3⅛	7	7	7	6	4	4		
			4	3⅝	7	7	6	4	4	-		
			4½	4⅛	7	6	4	-	-	-		
			5	4⅝	7	4	-	-	-	-		
	#14 Screw		See Table footnote 3	≤ 1⅝	7	7	7	7	7	7	7	
			2½	2⅛	7	7	7	7	7	7	6	
			3	2⅝	7	7	7	7	7	6	6	
			3½	3⅛	7	7	7	7	7	6	4	
			4	3⅝	7	7	7	7	6	4	4	
			4½	4⅛	7	7	6	4	4	4	-	
			5	4.625	7	6	4	4	4	-	-	
			TRUFAST SIP LD	3	≤ 7⁄8	7	7	7	7	7	7	7
	3			1⅛	7	7	7	7	7	7	6	
	3			1⅝	7	7	7	7	7	6	4	
	3			2⅛	7	7	6	6	6	4	4	
	3			2⅝	7	7	4	4	4	4	-	
	3½			3⅛	7	6	4	-	-	-	-	
	4			3⅝	6	-	-	-	-	-	-	
Steel Framing ² (43 mil, 18-gauge, 33-ksi)	#6 Screw	Lath ¹ / Mortar		See table footnote 3	≤ 1⅛	7	7	7	7	7	7	
			2	1⅝	7	7	7	7	7	7	6	
			2½	2⅛	7	7	7	7	6	6	4	
			3	2⅝	7	7	4	4	4	4	-	
			3½	3⅛	7	4	-	-	-	-	-	
	#8 Screw		See table footnote 3	≤ 1⅝	7	7	7	7	7	7	7	
			2½	2⅛	7	7	7	7	7	7	7	6
			3	2⅝	7	7	7	7	6	6	6	4



Table 2. Fastener Requirements to Support Cladding Weight for Westlake Royal Stone Products
Installation Over Continuous Insulation – Steel^{7,8,9}

Fastener Penetration Into	Fastener Type ³	Substrate	Minimum Fastener Length ⁶ (in)	Maximum Distance from Face of Framing to Underside of Fastener Head ^{4,5} (in) (GAP)	Maximum Vertical Spacing (in) of Fasteners along Each Stud ¹⁰							
					Maximum Cladding Weight (psf)							
					5	10	15	18	22	25		
Steel Framing ² (43 mil, 18-gauge, 33-ksi) Continued	#8 Screw	Lath ¹ / Mortar	3½	3⅛	7	7	6	4	4	-		
			4	3⅝	7	4	-	-	-	-		
	#10 Screw		See table footnote 3	≤ 2⅛	7	7	7	7	7	7	7	
			3	2⅝	7	7	7	7	7	7	6	
			3½	3⅛	7	7	7	6	6	4	4	
			4	3⅝	7	7	6	4	4	-	-	
			4½	4⅛	7	4	-	-	-	-	-	
			See table footnote 3	≤ 2⅝	7	7	7	7	7	7	7	7
	#12 Screw		3½	3⅛	7	7	7	7	7	7	6	
			4	3⅝	7	7	7	6	6	4	4	
			4½	4⅛	7	7	6	4	4	4	4	
			5	4⅝	7	6	4	-	-	-	-	
			See table footnote 3	≤ 3⅛	7	7	7	7	7	7	7	7
	#14 Screw		4	3⅝	7	7	7	7	7	7	6	
			4½	4⅛	7	7	7	7	6	4	4	
			5	4⅝	7	7	6	6	4	4	4	
			3	≤ 1⅝	7	7	7	7	7	7	7	7
	TRUFAST SIP LD		3	2⅛	7	7	7	7	7	7	6	
			3	2⅝	7	7	7	6	6	4	4	
			3½	3⅛	7	7	6	4	4	-	-	
			4	3⅝	7	4	-	-	-	-	-	
			See table footnote 3	≤ 1⅝	7	7	7	7	7	7	7	7
Steel Framing ² (54 mil, 16-gauge, 50-ksi)	#6 Screw	Lath ¹ / Mortar	See table footnote 3	≤ 1⅝	7	7	7	7	7	7	7	
			2½	2⅛	7	7	7	7	7	7	6	
			3	2⅝	7	7	7	6	4	4	4	
			3½	3⅛	7	4	-	-	-	-	-	
	#8 Screw		See table footnote 3	≤ 2⅛	7	7	7	7	7	7	7	7
			See table footnote 3	≤ 2⅛	7	7	7	7	7	7	7	7
			See table footnote 3	≤ 2⅛	7	7	7	7	7	7	7	7
			See table footnote 3	≤ 2⅛	7	7	7	7	7	7	7	7



Table 2. Fastener Requirements to Support Cladding Weight for Westlake Royal Stone Products
Installation Over Continuous Insulation – Steel^{7,8,9}

Fastener Penetration Into	Fastener Type ³	Substrate	Minimum Fastener Length ⁶ (in)	Maximum Distance from Face of Framing to Underside of Fastener Head ^{4,5} (in) (GAP)	Maximum Vertical Spacing (in) of Fasteners along Each Stud ¹⁰					
					Maximum Cladding Weight (psf)					
					5	10	15	18	22	25
Steel Framing ² (54 mil, 16-gauge, 50-ksi) Continued	#8 Screw	Lath ¹ / Mortar	3	2 ⁵ / ₈	7	7	7	7	7	6
			3½	3 ¹ / ₈	7	7	7	6	6	4
			4	3 ⁵ / ₈	7	6	4	4	-	-
	#10 Screw		See table footnote 3	≤ 2 ⁵ / ₈	7	7	7	7	7	7
			3½	3 ¹ / ₈	7	7	7	7	7	6
			4	3 ⁵ / ₈	7	7	7	6	6	4
			4½	4 ¹ / ₈	7	7	4	4	-	-
	#12 Screw		See table footnote 3	≤ 3 ⁵ / ₈	7	7	7	7	7	7
			4½	4 ¹ / ₈	7	7	7	7	6	4
			5	4 ⁵ / ₈	7	7	6	4	4	-
	#14 Screw		See table footnote 3	≤ 4 ¹ / ₈	7	7	7	7	7	7
			5	4 ⁵ / ₈	7	7	7	7	6	6
	TRUFAST SIP LD		3	≤ 2 ¹ / ₈	7	7	7	7	7	7
			3	2 ⁵ / ₈	7	7	7	7	7	6
			3½	3 ¹ / ₈	7	7	7	6	4	4
			4	3 ⁵ / ₈	7	6	4	-	-	-

SI: 1 in = 25.4 mm, 1 psf = 0.0479 kN/m²

- Lath shall be minimum 2.5-lb. metal lath having a minimum 0.020" thickness and shall be attached in accordance with **Section 9.3.9**. Tensile strength of the lath steel shall be minimum 43,900-psi.
- Maximum stud spacing is 16" o.c. Expanded metal lath shall be attached with fasteners, vertically along each stud, a maximum of 7" o.c.
- Screws shall be corrosion-resistant, self-drilling, self-tapping and penetrate a minimum of ³/₈" and have a wafer or pancake head or a washer with a diameter sufficient to prevent the head from pulling through the openings in the lath and shall be in accordance with ASTM C954 or ASTM C1002.
- For thicker continuous insulation applications, design is required in accordance with accepted engineering practice.
- The total distance from the face of the stud to the underside of the fastener head shall not be more than that listed above. This includes any additional sheathing materials such as OSB, plywood, Gypsum, DensGlass, lath, rain screen or airspace incorporated in the design of the wall assembly.
- Not all fasteners are commonly available in the lengths specified. Proprietary fasteners of equal strength and size are permitted.
- This table provides some options evaluated by DrJ for the attachment of Westlake Royal Stone Products over foam plastic insulating sheathing. Other methods, such as the Cascadia Clip or Knight Wall Systems, may be considered, but have not been evaluated by DrJ.
- Framing is defined as steel studs.
- Continuous insulation shall be foam plastic sheathing with a minimum compressive strength of 15-psi in accordance with ASTM C578 or ASTM C1289.
- Values were calculated considering only eccentric gravity loads. Where transverse load resistance is required, withdrawal resistance of the fastener shall also be considered.



**Table 3. Fastener Requirements to Support Cladding Weight for Westlake Royal Stone Products
Installation Over Continuous Insulation – Masonry & Concrete^{8,11}**

Lath ¹ Fastener Substrate ²	Lath Fastener Type	Maximum Veneer Weight (Includes Lath, Scratch Coat, and Mortar Setting Bed) (psf)	Maximum Distance From Face of Framing to Underside of Fastener Head ^{5,6} (in)	Lath Fastener – Minimum Size ⁷ (Diameter x Length)
Concrete ⁴ (minimum 2,500-psi)	TRUFast ¹⁰ TRUGRIP, TRUFast SIP LD, or Tapcon ^{®9} Hex Screw	15	1 ³ / ₈	TRUFast SIP LD or TRUFast TRUGRIP 3" or Tapcon Hex Screw 3/16" x 3 1/4"
			1 ⁷ / ₈	TRUFast SIP LD or TRUFast TRUGRIP 3 1/2" or Tapcon Hex Screw 1/4" x 3 3/4"
			2 ³ / ₈	TRUFast SIP LD or TRUFast TRUGRIP 4" or Tapcon Hex Screw 1/4" x 4"
			3 ³ / ₈	TRUFast TRUGRIP 4 1/2" or Tapcon Hex Screw 1/4" x 5"
		18	1 ³ / ₈	TRUFast SIP LD or TRUFast TRUGRIP 3" or Tapcon Hex Screw 3/16" x 3 1/4"
			1 ⁷ / ₈	TRUFast SIP LD or TRUFast TRUGRIP 3 1/2" or Tapcon Hex Screw 1/4" x 3 3/4"
			2 ³ / ₈	TRUFast SIP LD or TRUFast TRUGRIP 4" or Tapcon Hex Screw 1/4" x 4"
			3 ³ / ₈	Tapcon Hex Screw 1/4" x 5"
		22	1 ³ / ₈	TRUFast SIP LD or TRUFast TRUGRIP 3" or Tapcon Hex Screw 1/4" x 3 1/4"
			1 ⁷ / ₈	TRUFast TRUGRIP 3.5" or Tapcon Hex Screw 1/4" x 3 3/4"
			2 ³ / ₈	TRUFast TRUGRIP 4" or Tapcon Hex Screw 1/4" x 4"
			3 ³ / ₈	Tapcon Hex Screw 1/4" x 5"
		25	1 ³ / ₈	TRUFast TRUGRIP 3" or Tapcon Hex Screw 1/4" x 3 1/4"
			1 ⁷ / ₈	TRUFast TRUGRIP 3 1/2" or Tapcon Hex Screw 1/4" x 3 3/4"
			2 ³ / ₈	Tapcon Hex Screw 1/4" x 4"
			3 ³ / ₈	Tapcon Hex Screw 5/16" x 5"



**Table 3. Fastener Requirements to Support Cladding Weight for Westlake Royal Stone Products
Installation Over Continuous Insulation – Masonry & Concrete^{8,11}**

Lath ¹ Fastener Substrate ²	Lath Fastener Type	Maximum Veneer Weight (Includes Lath, Scratch Coat, and Mortar Setting Bed) (psf)	Maximum Distance From Face of Framing to Underside of Fastener Head ^{5,6} (in)	Lath Fastener – Minimum Size ⁷ (Diameter x Length)
Masonry ³ (medium/normal Hollow CMU per ASTM C90)	TRUFAST SIP LD, or Tapcon Hex Screw	15	1 ³ / ₈	TRUFAST SIP LD 3" or Tapcon Hex Screw 3/ ₁₆ " x 2 ³ / ₄ "
			1 ⁷ / ₈	TRUFAST SIP LD 3 ¹ / ₂ " or Tapcon Hex Screw 3/ ₁₆ " x 3 ¹ / ₄ "
			2 ³ / ₈	Tapcon Hex Screw 1/ ₄ " x 3 ³ / ₄ "
			3 ³ / ₈	Tapcon Hex Screw 1/ ₄ " x 5"
		18	1 ³ / ₈	TRUFAST SIP LD 2 ¹ / ₂ " or Tapcon Hex Screw 3/ ₁₆ " x 2 ³ / ₄ "
			1 ⁷ / ₈	Tapcon Hex Screw 3/ ₁₆ " x 3 ¹ / ₄ "
			2 ³ / ₈	Tapcon Hex Screw 1/ ₄ " x 3 ³ / ₄ "
			3 ³ / ₈	Tapcon Hex Screw 1/ ₄ " x 5"
		22	1 ³ / ₈	Tapcon Hex Screw 1/ ₄ " x 2 ³ / ₄ "
			1 ⁷ / ₈	Tapcon Hex Screw 1/ ₄ " x 3 ¹ / ₄ "
			2 ³ / ₈	Tapcon Hex Screw 1/ ₄ " x 3 ³ / ₄ "
			3 ³ / ₈	Tapcon Hex Screw 5/ ₁₆ " x 5"
		25	1 ³ / ₈	Tapcon Hex Screw 1/ ₄ " x 2 ³ / ₄ "
			1 ⁷ / ₈	Tapcon Hex Screw 1/ ₄ " x 3 ¹ / ₄ "
			2 ³ / ₈	Tapcon Hex Screw 1/ ₄ " x 3 ³ / ₄ "

SI: 1 in = 25.4 mm, 1 psf = 0.0479 kN/m²

- Lath shall be minimum 2.5 lb. metal lath having a minimum 0.020" thickness and shall be attached in accordance with **Section 9.3.9**. Tensile strength of the lath steel shall be minimum 43,900-psi.
- Maximum fastener spacing in masonry and concrete is 16" o.c. horizontally and 7" o.c. vertically.
- Masonry Construction: Tapcon fasteners shall penetrate a minimum of 1". TRUFAST SIP LD and TRUGRIP fasteners shall penetrate a minimum of 1¹/₂".
- Concrete Construction: Tapcon fasteners shall have a minimum penetration depth of 1¹/₂". TRUFAST SIP LD and TRUGRIP fasteners shall penetrate a minimum of 1¹/₂".
- For thicker continuous insulation applications, design is required in accordance with accepted engineering practice.
- The total distance from concrete or masonry to the underside of the fastener head shall not be more than that listed above. This includes any additional sheathing materials such as OSB, plywood, Gypsum, DensGlass, rain screen or airspace incorporated in the design of the wall assembly.
- Not all fasteners are commonly available in the lengths specified. Proprietary fasteners of equal strength and size are permitted.
- This table provides some options evaluated by DrJ for the attachment of Westlake Royal Stone Products over foam plastic insulating sheathing. Other methods, such as the Cascadia Clip or Knight Wall Systems, may be considered, but have not been evaluated by DrJ.
- Tapcon fasteners are proprietary fasteners manufactured by ITW Buildex. For Tapcon fastener code-compliance issues, see the manufacturer product literature and code-compliance reports.
- TRUFAST fasteners are proprietary fasteners manufactured by TRUFAST, LLC. For TRUFAST fastener code-compliance issues, see the manufacturer product literature and code-compliance reports.
- Continuous insulation shall be foam plastic sheathing with a minimum compressive strength of 15-psi in accordance with ASTM C578 or ASTM C1289.



6.3 Westlake Royal Stone Products are used as an exterior wall covering installed over furring. The furring is placed over the continuous insulation and fastened to the wood or steel studs or concrete or masonry substrate. The maximum foam thickness for various fastener sizes and types is listed in **Table 4**.

Table 4. Maximum Foam Thickness for Fastener Type and Size^{1,13,15}

Furring Material ^{2,3,4,5}	Framing Member ²⁰	Minimum Fastener Penetration into Wall Framing	Cladding Weight ¹⁶ (psf)	Maximum Distance from the Face of Framing to the Underside of Furring Material ¹⁴ (in)	Fastener Type and Minimum Size ^{10,11,12,17,18,19} (diameter x length)
Minimum 1 x 3 Wood Furring	Minimum 2x Wood Stud ⁶	See Table Footnote 6	15	1	0.148" x 3 1/4" Nail or HeadLOK 4 1/2", or TRUFAST SIP (LD or TP) 4"
				1 1/2	HeadLOK 4 1/2" or TRUFAST SIP (LD or TP) 4 1/2"
				2	HeadLOK 5" or TRUFAST SIP (LD or TP) 5"
				3	HeadLOK 6" or TRUFAST SIP (LD or TP) 7"
			18	1	0.148" x 3 1/4" Nail or HeadLOK 4 1/2" or TRUFAST SIP (LD or TP) 4"
				1 1/2	HeadLOK 4 1/2" or TRUFAST SIP (LD or TP) 4 1/2"
				2	HeadLOK 5" or TRUFAST SIP (LD or TP) 5"
				3	HeadLOK 6" or TRUFAST SIP (LD or TP) 7"
			22	1	0.148" x 3 1/4" Nail or HeadLOK 4 1/2" or TRUFAST SIP (LD or TP) 4"
				1 1/2	HeadLOK 4 1/2" or TRUFAST SIP (LD or TP) 4 1/2"
				2	HeadLOK 5" or TRUFAST SIP (LD or TP) 6"
				3	HeadLOK 6" or TRUFAST SIP (LD or TP) 7"



Table 4. Maximum Foam Thickness for Fastener Type and Size^{1,13,15}

Furring Material ^{2,3,4,5}	Framing Member ²⁰	Minimum Fastener Penetration into Wall Framing	Cladding Weight ¹⁶ (psf)	Maximum Distance from the Face of Framing to the Underside of Furring Material ¹⁴ (in)	Fastener Type and Minimum Size ^{10,11,12,17,18,19} (diameter x length)
Minimum 1 x 3 Wood Furring Continued	Minimum 2x Wood Stud ⁶ Continued	See Table Footnote 6 Continued	25	1	0.148" x 3 1/4" Nail or HeadLOK 4 1/2" or TRUFAST SIP (LD or TP) 4"
				1 1/2	HeadLOK 4 1/2" or TRUFAST SIP (LD or TP) 5 1/2"
				2	HeadLOK 5" or TRUFAST SIP (LD or TP) 6"
				3	None
Steel Hat Channel (Minimum 33 mil, 33-ksi)	Steel Stud ⁷ (33 mil or thicker, 33-ksi)	Steel Thickness + 3 Threads	15	1	#4 (0.112" x 1 1/2") or TRUFAST SIP LD 1 1/2"
				1 1/2	#6 (0.138" x 2") or TRUFAST SIP LD 2"
				2	#6 (0.138" x 2 1/2") or TRUFAST SIP LD 2 1/2"
				3	#10 (0.186" x 3 1/2") or TRUFAST SIP LD 3 1/2"
			18	1	#4 (0.112" x 1 1/2") or TRUFAST SIP LD 1 1/2"
				1 1/2	#6 (0.138" x 2") or TRUFAST SIP LD 2"
				2	#8 (0.164" x 2 1/2") or TRUFAST SIP LD 2 1/2"
				3	#12 (0.216" x 3 1/2") or TRUFAST SIP LD 3 1/2"
			22	1	#6 (0.138" x 1 1/2") or TRUFAST SIP LD 1 1/2"
				1 1/2	#8 (0.164" x 2") or TRUFAST SIP LD 2"
				2	#10 (0.186" x 2 1/2") or TRUFAST SIP LD 2 1/2"
				3	#14 (0.242" x 3 1/2") or TRUFAST SIP LD 3 1/2"



Table 4. Maximum Foam Thickness for Fastener Type and Size^{1,13,15}

Furring Material ^{2,3,4,5}	Framing Member ²⁰	Minimum Fastener Penetration into Wall Framing	Cladding Weight ¹⁶ (psf)	Maximum Distance from the Face of Framing to the Underside of Furring Material ¹⁴ (in)	Fastener Type and Minimum Size ^{10,11,12,17,18,19} (diameter x length)
Steel Hat Channel (Minimum 33 mil, 33-ksi) Continued	Steel Stud ⁷ (33 mil or thicker, 33-ksi) Continued	Steel Thickness + 3 Threads Continued	25	1	#8 (0.164" x 1 1/2") or TRUFAST SIP LD 1 1/2"
				1 1/2	#10 (0.186" x 2") or TRUFAST SIP LD 2"
				2	#12 (0.216" x 3 1/2") or TRUFAST SIP LD 2 1/2"
				3	#16 (0.268" x 3 1/2") or TRUFAST SIP LD 3 1/2"
Steel Hat Channel (Minimum 33 mil, 33-ksi)	Steel Stud (43 mil or Thicker, 33-ksi)	Steel Thickness + 3 Threads	15	1	#4 (0.112" x 1 1/2") or TRUFAST SIP LD 1 1/2"
				1 1/2	#6 (0.138" x 2") or TRUFAST SIP LD 2"
				2	#6 (0.138" x 2 1/2") or TRUFAST SIP LD 2 1/2"
				3	#8 (0.164" x 3 1/2") or TRUFAST SIP LD 3 1/2"
			18	1	#4 (0.112" x 1 1/2") or TRUFAST SIP LD 1 1/2"
				1 1/2	#6 (0.138" x 2") or TRUFAST SIP LD 2"
				2	#6 (0.138" x 2 1/2") or TRUFAST SIP LD 2 1/2"
				3	#10 (0.186" x 3 1/2") or TRUFAST SIP LD 3 1/2"
			22	1	#6 (0.138" x 1 1/2") or TRUFAST SIP LD 1 1/2"
				1 1/2	#6 (0.138" x 2") or TRUFAST SIP LD 2"
				2	#8 (0.164" x 2 1/2") or TRUFAST SIP LD 2 1/2"
				3	#10 (0.186" x 3 1/2") or TRUFAST SIP LD 3 1/2"



Table 4. Maximum Foam Thickness for Fastener Type and Size^{1,13,15}

Furring Material ^{2,3,4,5}	Framing Member ²⁰	Minimum Fastener Penetration into Wall Framing	Cladding Weight ¹⁶ (psf)	Maximum Distance from the Face of Framing to the Underside of Furring Material ¹⁴ (in)	Fastener Type and Minimum Size ^{10,11,12,17,18,19} (diameter x length)
Steel Hat Channel (Minimum 33 mil, 33-ksi) Continued	Steel Stud (43 mil or Thicker, 33-ksi) Continued	Steel Thickness + 3 Threads Continued	25	1	#6 (0.138" x 1 1/2") or TRUFAST SIP LD 1 1/2"
				1 1/2	#8 (0.164" x 2") or TRUFAST SIP LD 2"
				2	#8 (0.164" x 2 1/2") or TRUFAST SIP LD 2 1/2"
				3	#12 (0.216" x 3 1/2") or TRUFAST SIP LD 3 1/2"
Steel Hat Channel (Minimum 33 mil, 33-ksi)	Masonry ⁸ (Medium/Normal Hollow CMU per ASTM C90)	See Table Footnote 8	15	1	3/16" x 2 1/4" Tapcon Hex Screw or TRUFAST SIP LD 2 1/2"
				1 1/2	3/16" x 2 3/4" Tapcon Hex Screw or TRUFAST SIP LD 3"
				2	3/16" x 3 1/4" Tapcon Hex Screw or TRUFAST SIP LD 3 1/2"
				3	1/4" x 5" Tapcon Hex Screw or TRUFAST SIP LD 4"
			18	1	3/16" x 2 1/4" Tapcon Hex Screw or TRUFAST SIP LD 2 1/2"
				1 1/2	3/16" x 2 3/4" Tapcon Hex Screw or TRUFAST SIP LD 3"
				2	1/4" x 3 1/4" Tapcon Hex Screw or TRUFAST SIP LD 3 1/2"
				3	1/4" x 5" Tapcon Hex Screw
			22	1	3/16" x 2 1/4" Tapcon Hex Screw or TRUFAST SIP LD 2 1/2"
				1 1/2	1/4" x 2 3/4" Tapcon Hex Screw or TRUFAST SIP LD 3"
				2	1/4" x 3 1/4" Tapcon Hex Screw or TRUFAST SIP LD 3 1/2"
				3	1/4" x 5" Tapcon Hex Screw



Table 4. Maximum Foam Thickness for Fastener Type and Size^{1,13,15}

Furring Material ^{2,3,4,5}	Framing Member ²⁰	Minimum Fastener Penetration into Wall Framing	Cladding Weight ¹⁶ (psf)	Maximum Distance from the Face of Framing to the Underside of Furring Material ¹⁴ (in)	Fastener Type and Minimum Size ^{10,11,12,17,18,19} (diameter x length)
Steel Hat Channel (Minimum 33 mil, 33-ksi) Continued	Masonry ⁸ (Medium/Normal Hollow CMU per ASTM C90) Continued	See Table Footnote 8 Continued	25	1	1/4" x 2 1/4" Tapcon Hex Screw or TRUFAST SIP LD 2 1/2"
				1 1/2	1/4" x 2 3/4" Tapcon Hex Screw or TRUFAST SIP LD 3"
				2	1/4" x 3 1/4" Tapcon Hex Screw or TRUFAST SIP LD 3 1/2"
				3	5/16" x 5" Tapcon Hex Screw
Steel Hat Channel (Minimum 33 mil, 33-ksi)	Concrete ⁹ (Minimum 2,500-psi)	See Table Footnote 9	22	1	3/16" x 2 3/4" Tapcon Hex Screw or TRUFAST SIP LD or TRUFAST TRUGRIP 3"
				1 1/2	3/16" x 3 1/4" Tapcon Hex Screw or TRUFAST SIP LD or TRUFAST TRUGRIP 3 1/2"
				2	3/16" x 3 3/4" Tapcon Hex Screw or TRUFAST SIP LD or TRUFAST TRUGRIP 4"
				3	3/16" x 5" Tapcon Hex Screw or TRUFAST SIP LD or TRUFAST TRUGRIP 5"
			25	1	3/16" x 2 3/4" Tapcon Hex Screw or TRUFAST SIP LD or TRUFAST TRUGRIP 3"
				1 1/2	3/16" x 3 1/4" Tapcon Hex Screw or TRUFAST SIP LD or TRUFAST TRUGRIP 3 1/2"
				2	3/16" x 3 3/4" Tapcon Hex Screw or TRUFAST SIP LD or TRUFAST TRUGRIP 4"
				3	1/4" x 5" Tapcon Hex Screw or TRUFAST SIP LD or TRUFAST TRUGRIP 5"



Table 4. Maximum Foam Thickness for Fastener Type and Size^{1,13,15}

Furring Material ^{2,3,4,5}	Framing Member ²⁰	Minimum Fastener Penetration into Wall Framing	Cladding Weight ¹⁶ (psf)	Maximum Distance from the Face of Framing to the Underside of Furring Material ¹⁴ (in)	Fastener Type and Minimum Size ^{10,11,12,17,18,19} (diameter x length)
SI: 1 in = 25.4 mm, 1 psf = 0.0479 kN/m² - Lath shall be minimum 2.5 lb. metal lath having a minimum 0.020" thickness and shall be attached in accordance with Section 9.3.9. Tensile strength of the lath steel shall be minimum 43,900-psi. - Where furring is installed vertically over wall studs, maximum stud spacing shall be 16" o.c., and furring shall be attached to each stud at a maximum of 7" o.c. along the length of the stud. Where furring is attached vertically to concrete or masonry walls, it shall be spaced a maximum of 16" o.c. and fastened a maximum of 7" o.c. vertically. - Where furring is installed horizontally over wall studs, maximum stud spacing shall be 16" o.c., and furring shall be installed at a maximum 7" o.c. along the length of the stud and attached to each wall stud. Where furring is attached horizontally to concrete or masonry, it shall be spaced a maximum of 7" o.c. and shall be fastened to the concrete or masonry with fasteners spaced a maximum of 16" o.c. - Wood furring shall be a minimum 3/4" thick. Wood furring and wood studs shall have a minimum specific gravity of 0.42. - Steel hat-channel furring shall be a minimum 33 mil thick steel (33-ksi) with a depth of 7/8". <i>Wood Construction:</i> Nails shall penetrate wood framing a minimum of 1 1/2" and have a head size or a washer with a diameter sufficient to prevent the head from pulling through the openings in the lath. Screws shall penetrate the studs a minimum of 1 1/4". Nails supporting the furring strips shall penetrate the studs a minimum of 1 1/2". <i>Steel Framing:</i> Screws shall be corrosion-resistant, self-drilling, self-tapping and penetrate a minimum of 3/8" and have a wafer or pancake head or a washer with a diameter sufficient to prevent the head from pulling through the openings in the lath. <i>Masonry Construction:</i> Tapcon fasteners shall penetrate a minimum of 1". TRUFAST SIP LD and TRUGRIP fasteners shall penetrate a minimum of 1 1/2". <i>Concrete Construction:</i> Tapcon fasteners shall have a minimum penetration depth of 1 1/2". TRUFAST SIP LD and TRUGRIP fasteners shall penetrate a minimum of 1 1/2". - Corrosion-resistant, self-drilling, self-tapping screw fasteners for connection of siding to steel framing shall comply with the requirements of AISI S200. Other approved fasteners of equivalent or greater diameter and bending strength shall be permitted. - Nail fasteners shall be common or box nails and shall comply with ASTM F1667, except nail length shall be permitted to exceed ASTM F1667 standard lengths. Minimum bending yield strength for nails with a diameter up to 0.148", 0.162", and 0.225" shall be 90,000-psi, 90,000-psi and 80,000-psi, respectively. - A minimum 2x wood furring shall be used where the required wall covering fastener penetration into wood material exceeds 3/4" (19 mm) and is not more than 1 1/2" (38 mm), unless approved deformed shank siding nails or siding screws are used to provide equivalent withdrawal strength, allowing the wall covering connection to be placed into 1x wood furring. - Continuous insulation shall be foam plastic sheathing with a minimum compressive strength of 15-psi in accordance with ASTM C578 or ASTM C1289. - The total distance from the face of the stud, concrete, or masonry to the underside of the furring shall not be more than the maximum thickness listed above. This includes any additional sheathing materials such as OSB, plywood, Gypsum, DensGlass, rain screen or airspace incorporated in the design of the wall assembly. Cladding shall be attached to the furring in accordance with the manufacturer installation instructions. Not all fasteners are commonly available in the lengths specified. Proprietary fasteners of equal strength and size are permitted. - This table provides some options evaluated by DrJ for the attachment of Westlake Royal Stone Products over foam plastic insulating sheathing. Other methods, such as the Cascadia Clip or Knight Wall Systems, may be considered, but have not been evaluated by DrJ. - Materials in the assembly, other than the veneer, lath and mortar setting bed and furring, are assumed to be separately attached and are not included in the fastener size calculations. Furring weight shall be included as part of the listed cladding weight. - HeadLOK Screws are proprietary fasteners manufactured by OMG, Inc. (dba FastenMaster). For HeadLOK fastener code compliance issues, see the manufacturer product literature and code compliance reports. - Tapcon fasteners are proprietary fasteners manufactured by ITW Buildex. For Tapcon fastener code-compliance issues, see the manufacturer product literature and code-compliance reports. - TRUFAST fasteners are proprietary fasteners manufactured by TRUFAST, LLC. For TRUFAST fastener code-compliance issues, see the manufacturer product literature and code-compliance reports. - Framing is defined as wood studs, steel studs, concrete, or masonry substrates.					



6.4 Transverse Wind Loads

- 6.4.1 Westlake Royal Stone Products shall not be installed in areas where the design wind pressure exceeds the capacity of the cladding and its attachment to resist the load in accordance with **Table 5**.
- 6.4.2 **Table 5** provides the maximum design wind pressure allowed for the installation of Westlake Royal Stone Products. The maximum wind speed that corresponds with this wind pressure is provided to aid the user in determining where the product can be used. See the applicable building code for the maximum design wind speed allowed for the location of the building. The wind speed listed in **Table 5** shall exceed the required design wind speed from the applicable code.

Table 5. Maximum Allowable Wind Pressure and Wind Speeds for Westlake Royal Stone Products Lath Fasteners

Exposure Category	Maximum Allowable Wind Pressure ^{2,5} (psf)	Maximum Wind Speed ^{1,3,4} V_{ult}/V_{asd} (mph)
B	70	≤ 200/155
C		≤ 185/145
D		≤ 170/130

SI: 1 psf = 0.0479 kN/m², 1 mph = 1.61 km/h

- The first wind speed listed is V_{ult} , per ASCE 7-16 and 7-22, and is the maximum allowed wind speed for the Exposure Category shown with a maximum Mean Roof Height (MRH) of 30'. The second wind speed capacity shown for each exposure category is the ASCE 7-16 and 7-22 ultimate wind speed converted to V_{asd} for allowable stress design and rounded to the nearest 5 mph.
- Design wind pressure is per ASCE 7-16 and 7-22 for components and cladding ($K_d = 0.85$), Method 1 for the condition shown.
- Maximum allowable wind speeds are based on the average ultimate loads tested for each condition divided by an allowable stress design reduction factor of 1.6, in accordance with SDPWS Section 3.2.1.
- Pressure Equalization factor in accordance with ASTM D5206, Procedure B equals 1.0. Additional assumptions include:
 - Enclosed Building ($GC_{pi} = \pm 0.18$)
 - Topographic Factor, $K_{zt} = 1.0$
 - Ground Elevation Factor, $K_e = 1.0$
 - Zone 5 with an effective area of 10 ft² ($GC_p = -1.4$)
- Wind pressure resistance is based on the lowest published withdraw capacity for the fasteners shown. Fasteners of equal or greater withdrawal resistance and equal or greater head size are permitted.

- 6.4.3 For additional information or use in other applications, consult the manufacturer installation instructions:

- 6.4.3.1 Eldorado Stone: www.westlakeroyalbuildingproducts.com/stone/eldorado-stone
- 6.4.3.2 Dutch Quality Stone: www.westlakeroyalbuildingproducts.com/stone/dutch-quality-stone
- 6.4.3.3 Cultured Stone: www.westlakeroyalbuildingproducts.com/stone/cultured-stone
- 6.4.3.4 StoneCraft: www.westlakeroyalbuildingproducts.com/stone/stonecraft

- 6.5 Alternative techniques shall be permitted in accordance with accepted engineering practice and experience. These provisions for the use of alternative materials, designs, and methods of construction are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed herein. This includes, but is not limited to, the following areas of engineering: mechanics of materials, structures, building science, and fire science.



7 Certified Performance²⁷

- 7.1 All construction methods shall conform to accepted engineering practices to ensure durable, livable, and safe construction and shall demonstrate acceptable workmanship reflecting journeyman quality of work of the various trades.²⁸
- 7.2 The strength and rigidity of the component parts and/or the integrated structure shall be determined by engineering analysis or by suitable load tests to simulate the actual loads and conditions of application that occur.²⁹

8 Regulatory Evaluation and Accepted Engineering Practice

- 8.1 Westlake Royal Stone Products Adhered Masonry Veneer products comply with the following legislatively adopted regulations and/or accepted engineering practice for the following reasons:
 - 8.1.1 Westlake Royal Stone Products were evaluated to determine:
 - 8.1.1.1 The ability of various fasteners to support the gravity and transverse loads induced by the products when installed over wood or steel light-frame construction with the addition of continuous insulation installed between the framing and the Westlake Royal Stone Products.
 - 8.1.1.2 The ability of various fasteners to support the gravity and transverse loads induced by the products when installed over concrete and masonry construction with the addition of continuous insulation installed between the framing and the Westlake Royal Stone Products.
 - 8.2 Use in applications requiring a fire-resistance rating are outside the scope of this evaluation.
 - 8.3 Any building code, regulation and/or accepted engineering evaluations (i.e., research reports, duly authenticated reports, etc.) that are conducted for this Listing were performed by DrJ, which is an ISO/IEC 17065 accredited certification body and a professional engineering company operated by RDP or approved sources. DrJ is qualified³⁰ to practice product and regulatory compliance services within its scope of accreditation and engineering expertise,³¹ respectively.
 - 8.4 Engineering evaluations are conducted with DrJ's ANAB accredited ICS code scope of expertise, which is also its areas of professional engineering competence.

9 Installation

- 9.1 Installation shall comply with the approved construction documents, the manufacturer installation instructions, this report, and the applicable building code.
- 9.2 In the event of a conflict between the manufacturer installation instructions and this report, contact the manufacturer for counsel on the proper installation method.
- 9.3 *Installation Procedure*
 - 9.3.1 Westlake Royal Stone Products shall be installed in accordance with the manufacturer published installation instructions, the Masonry Veneer Manufacturer Association's Installation Guide, and this report. In the event of a conflict between the manufacturer installation instructions, the Masonry Veneer Manufacturer Association's Installation Guide, and this report, the more restrictive shall govern.
 - 9.3.2 Installation is subject to the conditions of use set forth in **Section 12**.
 - 9.3.3 Veneer must be applied to a wall framing system in which the studs are spaced a maximum of 16" o.c. (406 mm).
 - 9.3.4 Westlake Royal Stone Products may be installed over continuous insulation on masonry or concrete walls, and attached in accordance with **Table 3**.



- 9.3.5 Westlake Royal Stone Products may be installed over continuous insulation on wood or steel-framed walls, with or without WSP sheathing, and attached in accordance with **Table 1**, **Table 2**, or **Table 4**.
- 9.3.5.1 Where WSP sheathing is used, it shall be installed in accordance with the applicable building code or other standards as permitted by the building code (such as SDPWS or WFCM), and shall comply with one of the following minimum requirements:
- 9.3.5.1.1 Minimum $7/16$ " Structural 1, Exposure 1 OSB complying with PS 2
- 9.3.5.1.2 Minimum $1/2$ " Structural 1 rated, exterior grade plywood complying with PS 1
- 9.3.6 Westlake Royal Stone Products must be installed over two (2) layers of a Water-Resistant Barrier (WRB) in accordance with IBC Section 1402.2, IBC Section 1403.2, IBC Section 2510.6, and IRC Section R703.2. The base layer WRB may be liquid-applied, a sheet material, or a rigid continuous insulation with taped joints where the continuous insulation is approved for use as a WRB.
- 9.3.6.1 *Exception:* The WRB is not required when installed over concrete or masonry substrate.
- 9.3.7 Weep screeds and code compliant flashing must be installed at the bottom of walls, the top of windows, doors, and fenestrations, and at all horizontal terminations of the veneer.
- 9.3.7.1 The weep screed must comply with and be installed in accordance with IBC Section 1404.11.1.2.1,³² IBC Section 2512.1.2, or IRC Section R703.7.2.1.
- 9.3.7.2 *Exception:* The weep screed is not required when installed over concrete or masonry substrate.
- 9.3.8 Veneer must be installed over 2.5 lb/yd² (1.4 kg/m²) galvanized diamond mesh metal lath, 3.4 lb/yd² (1.8 kg/m²) $3/8$ " thick (9 mm) galvanized expanded metal lath, 18-gauge, 0.051" thick (1.30 mm), galvanized woven wire mesh or other code-approved lath of equal or better performance.
- 9.3.9 Lath shall be:
- 9.3.9.1 Installed per the manufacturer installation instructions or ASTM C1063.
- 9.3.9.2 Installed over the two (2) WRB layers, unless one of the following conditions are met:
- 9.3.9.2.1 Lath is paper-backed, in which case only one (1) additional WRB is required, except as noted in **Section 9.3.9**.
- 9.3.9.2.2 If foam sheathing is used and has been qualified by the manufacturer to perform as a WRB, then only one (1) additional WRB is required.
- 9.3.9.2.3 If a rain screen is used, only one WRB is required, in accordance with IBC Section 2510.6.
- 9.3.9.3 Fastened through continuous insulation to each stud at 7" o.c. (178 mm) vertically along the stud, or as shown in **Table 2** and **Table 4**.
- 9.3.9.4 When the lath is installed over furring, the furring shall be fastened to the wood, steel, or concrete substrate in accordance with **Table 4**.
- 9.3.10 Installations in Climate Zones 1A, 2A, or 3A must incorporate a drainage space of not less than $3/16$ " (5 mm) or utilize a drainage material with a minimum ninety percent (90%) drainage efficiency between the WRB and the lath in accordance with IBC Section 2510.6 and IRC Section R703.7.3.
- 9.3.11 Westlake Royal Stone Products shall be adhered to the supporting walls with a $1/2$ " thick to $3/4$ " thick (13 to 19 mm) mortar setting bed.
- 9.3.11.1 The mortar shall comply with IBC Section 2103.2 or IRC Table R606.2.8 for the application.
- 9.3.11.2 Other mortars of equal or greater performance shall be permitted when installed in accordance with the manufacturer installation instructions.
- 9.3.11.3 All other installation and flashing details germane to the project shall be in accordance with the applicable building code and the manufacturer installation instructions.



10 Substantiating Data

- 10.1 Testing has been performed under the supervision of a professional engineer and/or under the requirements of ISO/IEC 17025 as follows:
- 10.1.1 Wind-load resistance testing in accordance with ASTM E330
 - 10.1.2 Calculations in accordance with AWC NDS, AISI S100, and ACI 318 performed by DrJ Engineering
- 10.2 Information contained herein may include the result of testing and/or data analysis by sources that are approved agencies, approved sources, and/or an RDP. Accuracy of external test data and resulting analysis is relied upon.
- 10.3 Where applicable, testing and/or engineering analysis are based upon provisions that have been codified into law through state or local adoption of regulations and standards. The developers of these regulations and standards are responsible for the reliability of published content. DrJ's engineering practice may use a regulation-adopted provision as the control. A regulation-endorsed control versus a simulation of the conditions of application to occur establishes a new material as being equivalent to the regulatory provision in terms of quality, strength, effectiveness, fire resistance, durability, and safety.
- 10.4 The accuracy of the provisions provided herein may be reliant upon the published properties of raw materials, which are defined by the grade mark, grade stamp, mill certificate, or duly authenticated reports from approved agencies and/or approved sources provided by the supplier. These are presumed to be minimum properties and relied upon to be accurate. The reliability of DrJ's engineering practice, as contained in this duly authenticated report, may be dependent upon published design properties by others.
- 10.5 *Testing and Engineering Analysis*
- 10.5.1 The strength, rigidity, and/or general performance of component parts and/or the integrated structure are determined by suitable tests that simulate the actual conditions of application that occur and/or by accepted engineering practice and experience.³³
- 10.6 Where additional condition of use and/or regulatory compliance information is required, please search for Westlake Royal Stone Products on the DrJ Certification website.

11 Findings

- 11.1 As outlined in **Section 6**, Westlake Royal Stone Products have performance characteristics that were tested and/or meet applicable regulations. In addition, they are suitable for use pursuant to its specified purpose.
- 11.2 When used and installed in accordance with this duly authenticated report and the manufacturer installation instructions, Westlake Royal Stone Products shall be approved for the following applications:
- 11.2.1 For use as an exterior wall covering in accordance with the applicable sections of IBC Chapter 14, IBC Chapter 25, and IRC Section R703.
- 11.3 Fasteners used in accordance with **Table 1**, **Table 2**, **Table 3**, and **Table 4** are adequate for the support of Westlake Royal Stone Products in applications where there is a layer of continuous insulation installed between the products and the underlying substrate (e.g., light-frame wood or steel-framed walls, concrete, or masonry walls).
- 11.4 Any application specific issues not addressed herein can be engineered by an RDP. Assistance with engineering is available from Westlake Royal Stone, LLC.
- 11.5 IBC Section 104.2.3³⁴ (IRC Section R104.2.2³⁵ and IFC Section 104.2.3³⁶ are similar) in pertinent part state:

104.2.3 Alternative Materials, Design and Methods of Construction and Equipment. The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative is not specifically prohibited by this code and has been approved.



- 11.6 **Approved:**³⁷ Building regulations require that the building official shall accept duly authenticated reports.³⁸
- 11.6.1 An approved agency is “approved” when it is ANAB ISO/IEC 17065 accredited.
- 11.6.2 An approved source is “approved” when an RDP is properly licensed to transact engineering commerce.
- 11.6.3 Federal law, Title 18 US Code Section 242, requires that, where the alternative product, material, service, design, assembly, and/or method of construction is not approved, the building official shall respond in writing, stating the reasons why the alternative was not approved. Denial without written reason deprives a protected right to free and fair competition in the marketplace.
- 11.7 DrJ is a licensed engineering company, employs licensed RDPs and is an ANAB Accredited Product Certification Body – Accreditation #1131.
- 11.8 Through the IAF Multilateral Arrangement (MLA), this duly authenticated report can be used to obtain product approval in any jurisdiction or country because all ANAB ISO/IEC 17065 duly authenticated reports are equivalent.³⁹

12 Conditions of Use

- 12.1 As defined in **Section 6**, where material and/or engineering mechanics properties are created for load resisting design purposes, the resistance to the applied load shall not exceed the ability of the defined properties to resist those loads using the principles of accepted engineering practice.
- 12.2 As listed herein, Westlake Royal Stone Products shall be used:
- 12.2.1 Installation shall be on exterior walls consisting of wood framing, steel framing, masonry, or concrete, capable of supporting the imposed loads, including transverse wind loads.
- 12.2.2 Where the seismic provisions of IRC Section R301.2.2 apply, the wall assembly shall not exceed the weight limits of IRC Section R301.2.2.2, unless an engineered design is provided in accordance with IRC Section R301.1.3.
- 12.2.3 Walls shall be braced to resist in-plane shear (racking) load by other means and in accordance with the applicable code.
- 12.2.4 Exterior wall framing shall be limited to a maximum out-of-plane deflection of H/360 (H equals the height of the wall)
- 12.2.5 Interior adhered masonry veneers under IBC Section 1404.11.3⁴⁰ to a maximum weight of 20-psf (0.958 kg/m²) and must be supported by framing designed to limit deflection to L/600.
- 12.3 When required by adopted legislation and enforced by the building official, also known as the Authority Having Jurisdiction (AHJ) in which the project is to be constructed:
- 12.3.1 Any calculations incorporated into the construction documents shall conform to accepted engineering practice and, when prepared by an approved source, shall be approved when signed and sealed.
- 12.3.2 This report and the installation instructions shall be submitted at the time of permit application.
- 12.3.3 These innovative products have an internal quality control program and a third-party quality assurance program.
- 12.3.4 At a minimum, these innovative products shall be installed per **Section 9**.
- 12.3.5 The review of this report by the AHJ shall comply with IBC Section 104.2.3.2 and IBC Section 105.3.1.
- 12.3.6 These innovative products have an internal quality control program and a third party quality assurance program in accordance with IBC Section 104.7.2, IBC Section 110.4, IBC Section 1703, IRC Section R104.7.2, and IRC Section R109.2.
- 12.3.7 The application of these innovative products in the context of this report is dependent upon the accuracy of the construction documents, implementation of installation instructions, inspection as required by IBC Section 110.3, IRC Section R109.2, and any other regulatory requirements that may apply.



- 12.4 The approval of this report by the AHJ shall comply with IBC Section 1707.1, where legislation states in part, *“the building official shall make, or cause to be made, the necessary tests and investigations; or the building official shall accept duly authenticated reports from approved agencies in respect to the quality and manner of use of new materials or assemblies as provided for in Section 104.2.3”*, all of IBC Section 104, and IBC Section 105.3.
- 12.5 Design loads shall be determined in accordance with the regulations adopted by the jurisdiction in which the project is to be constructed and/or by the building designer (i.e., owner or RDP).
- 12.6 The actual design, suitability, and use of this report for any particular building, is the responsibility of the owner or the authorized agent of the owner.

13 Identification

- 13.1 Westlake Royal Stone Products Adhered Masonry Veneer (Eldorado Stone, Dutch Quality Stone, Cultured Stone, and StoneCraft Industries Adhered Masonry Veneers), as listed in **Section 1.1**, are identified by a label on the board or packaging material bearing the manufacturer name, product name, this report number, and other information to confirm code compliance.
- 13.2 Additional technical information can be found at www.westlakeroyalbuildingproducts.com.
- 13.2.1 Eldorado Stone: www.westlakeroyalbuildingproducts.com/stone/eldorado-stone
- 13.2.2 Dutch Quality Stone: www.westlakeroyalbuildingproducts.com/stone/dutch-quality-stone
- 13.2.3 Cultured Stone: www.westlakeroyalbuildingproducts.com/stone/cultured-stone
- 13.2.4 StoneCraft: www.westlakeroyalbuildingproducts.com/stone/stonecraft

14 Review Schedule

- 14.1 This report is subject to periodic review and revision. For the latest version, visit www.drjcertification.org.
- 14.2 For information on the status of this report, please contact [DrJ Certification](#).



Appendix A. Eldorado Stone

Profile Name	Weight of Total Façade Includes Lath, Scratch, Bond Mortar, and Stone, Saturated (psf)	Weight of Total Façade Includes 1/2" Cement Board, Bond Mortar, and Stone, Saturated (psf)
Ashlar	20.4	17.1
Bluff Stone	19.3	16.1
Brick, Adobe	21.1	17.8
Brick, Arabian	18.5	15.3
Brick, Modena	17.0	13.7
Brick, Roma	19.6	16.3
Brick, Tundra	16.8	13.6
Brick, Via	18.4	15.1
Broken Top	22.4	19.2
Castlestone, English	20.0	16.7
Cliffstone	20.7	17.4
Coarsed Stone	21.3	18.0
Coastal Reef	20.6	17.3
Cobblestone	22.8	19.6
Country Rubble	21.0	17.7
Country Rubble, Oversized	24.9	21.7
Cut Coarsed Stone	22.2	19.0
Cypress Ridge	19.6	16.3
European Ledge Cut	22.2	18.9
Field Ledge	19.2	15.9
Top Rock	20.4	17.1
Hillstone	22.0	18.8
Latitude30	21.6	18.3
Ledgecut33	22.3	19.0
Limestone	21.2	18.0
Longitude24	21.6	18.3
Mountain Ledge Panel	22.0	18.8



Profile Name	Weight of Total Façade Includes Lath, Scratch, Bond Mortar, and Stone, Saturated (psf)	Weight of Total Façade Includes 1/2" Cement Board, Bond Mortar, and Stone, Saturated (psf)
Mountain Ledge	22.1	18.9
Ridgetop 18	21.6	18.3
River Rock, Northwest	21.7	18.5
River Rock, Creek Cobble	16.7	13.5
River Rock, Streamstone	22.5	19.3
River Rock, White Water	20.2	16.9
Rough Cut	22.2	18.9
Rustic Ledge	20.1	16.9
Shadow Rock	23.3	20.1
Sierra Cut24	27.3	24
Stack Stone	19.4	16.1
Vantage30	21.6	18.3
Vintage Ranch	20.5	17.2
Weathered Edge	22.0	18.8
Zen24	21.6	18.3

SI: 1 psf = 0.0479 kN/m²

1. This table is provided by the manufacturer to aid in selecting fasteners. DrJ Engineering has not independently verified the values in these tables.



Appendix B. Dutch Quality Stone

Profile Name	Weight of Total Façade Includes Lath, Scratch, Bond Mortar and Stone, Saturated (psf)	Weight of Total Façade Includes 1/2" Cement Board, Bond Mortar and Stone, Saturated (psf)
CastleStone	20.0	16.8
Drystack	20.5	17.3
FieldStone	19.6	16.3
Ledgestone	20.1	16.8
Limestone	20.7	17.5
Michigan Split Granite	22.0	18.8
River Rock	20.5	17.3
Stack Ledge	21.3	18.1
Tuscan Ridge	21.4	18.1
Tuscany Veneer	20.2	16.9
Weather Ledge	20.5	17.3
SI: 1 psf = 0.0479 kN/m ² 1. This table is provided by the manufacturer to aid in selecting fasteners. DrJ Engineering has not independently verified the values in these tables.		



Appendix C. Cultured Stone

Product Style	Stone Saturated Weight (psf)	Saturated Density Stone and Scratch and Lath and Bonding Mortar (psf)	Saturated Density Stone and Cement Board and Bonding Mortar (psf)
Ancient Villa Ledgerstone	11.4	21.4	18.1
Cast-Fit 12x24	12.0	22.0	18.7
Cast-Fit 8x16	13.8	23.8	20.5
Cobblefield	13.9	23.9	20.6
Coral Stone	10.1	20.1	16.8
Country Ledgerstone	12.6	22.6	19.3
Cultured Brick Veneer-Handmade Brick	10.2	20.2	16.9
Cultured Brick Veneer-Used Brick	11.2	21.2	17.9
Del Mare Ledgerstone	12.3	22.3	19.0
Dressed Fieldstone	14.3	24.3	21.0
Drystack Ledgerstone	14.7	24.7	21.4
European Castle Stone	10.0	20.0	16.7
Hewn Stone 308	14.2	24.2	20.9
Hewn Stone 314	14.7	24.7	21.4
Hewn Stone 514	14.5	24.5	21.2
Hewn Stone 522	13.9	23.9	20.6
Hewn Stone 822	13.0	23.0	19.7
Limestone	13.6	23.6	20.3
Old Country Fieldstone	13.5	23.5	20.2
Pro-Fit Alpine Ledgerstone	13.3	23.3	20.0
Pro-Fit Ledgerstone	10.3	20.3	17.0
Pro-Fit Modera Ledgerstone	12.0	22.0	18.7
Pro-Fit Terrain Ledgerstone	12.2	22.2	18.9
River Rock	13.4	23.4	20.1
Rock Face	12.5	22.5	19.2
Southern Ledgerstone	12.6	22.6	19.3



Product Style	Stone Saturated Weight (psf)	Saturated Density Stone and Scratch and Lath and Bonding Mortar (psf)	Saturated Density Stone and Cement Board and Bonding Mortar (psf)
Split Face	13.3	23.3	20.0
Stream Stone	9.6	19.6	16.3

SI: 1 psf = 0.0479 kN/m²

1. This table is provided by the manufacturer to aid in selecting fasteners. DrJ Engineering has not independently verified the values in these tables.



Appendix D. Stone Craft

Profile ID	Weight of Total Façade Includes Lath, Scratch, Bond Mortar and Stone, Saturated (psf)	Weight of Total Façade Includes 1/2" Cement Board, Bond Mortar and Stone, Saturated (psf)
Cobble	24.4	21.2
Dutchcraft	24.5	21.3
Farmledge	21.6	18.4
Fieldstone	20.7	17.5
Heritage	24.2	20.9
Laurel Cavern	22.3	19.0
Ledgestone	23.7	20.5
Monarch	20.9	17.7
River Rock	23.2	19.9
Top Rock	21.6	18.4
SI: 1 psf = 0.0479 kN/m ² 1. This table is provided by the manufacturer to aid in selecting fasteners. DrJ Engineering has not independently verified the values in these tables.		



Issue Date: December 6, 2023

Supplement Revision Date: March 16, 2026

Subject to Renewal: April 1, 2027

FBC Supplement to Report Number 1312-01

REPORT HOLDER: Westlake Royal Stone, LLC

1 Evaluation Subject

1.1 Westlake Royal Stone Products:

- 1.1.1 Eldorado Stone Adhered Masonry Veneer
- 1.1.2 Dutch Quality Stone Adhered Masonry Veneer
- 1.1.3 Cultured Stone Adhered Masonry Veneer
- 1.1.4 StoneCraft Industries Adhered Masonry Veneer

2 Purpose and Scope

2.1 Purpose

- 2.1.1 The purpose of this Report Supplement is to show Westlake Royal Stone Products, recognized in Report Number 1312-01, have also been evaluated for compliance with the codes listed below as adopted by the Florida Building Commission.

2.2 *Applicable Code Editions*

- 2.2.1 *FBC-B—20, 23: Florida Building Code – Building (FL 41520)*
- 2.2.2 *FBC-R—20, 23: Florida Building Code – Residential (FL 41520)*

3 Conclusions

- 3.1 Westlake Royal Stone Products, described in Report Number 1312-01, comply with the FBC-B and FBC-R and are subject to the conditions of use described in this supplement.
- 3.2 Where there are variations between the IBC and IRC and the FBC-B and FBC-R applicable to this report, they are listed here:
 - 3.2.1 FBC-B Section 104 is reserved.
 - 3.2.2 FBC-B Section 110.4 is reserved and replaces IBC Section 110.4.
 - 3.2.3 FBC-B Section 104.6 is reserved and replaces IBC Section 104.4.
 - 3.2.4 FBC-B Section 104.11 replaces IBC Section 104.2.3 and Section 104.2.3.2.
 - 3.2.5 FBC-B Section 105.3 replaces IBC Section 105.3.
 - 3.2.6 FBC-B Section 105.3.1 replaces IBC Section 105.3.1.
 - 3.2.7 FBC-B Section 110.3 replaces IBC Section 110.3.
 - 3.2.8 FBC-B Section 1403.2 replaces IBC Section 1402.2.
 - 3.2.9 FBC-B Section 1404.2 replaces IBC Section 1403.2.
 - 3.2.10 FBC-B Section 1405.10.1.2.1 replaces IBC Section 1404.11.1.2.1.
 - 3.2.11 FBC-B Section 1405.10.3 replaces IBC Section 1404.11.3.



- 3.2.12 FBC-B Section 1707.1 replaces IBC Section 1707.1.
- 3.2.13 FBC-B Section 2306.1 replaces IBC Section 2306.1.
- 3.2.14 FBC-B Section 2306.3 replaces IBC Section 2306.3.
- 3.2.15 FBC-B Section 2510.6 replaces IBC Section 2510.6.
- 3.2.16 FBC-B Section 2512.1.2 replaces IBC Section 2512.1.2.
- 3.2.17 FBC-R Section R104 and Section R109 are reserved.
- 3.2.18 FBC-R Section R301.1.3 replaces IRC Section R301.1.3.
- 3.2.19 FBC-R Section R301.2.1 replaces IRC Section R301.2.1.
- 3.2.20 FBC-R Section R301.2.2 is reserved and replaces IRC Section R301.2.2.
- 3.2.21 FBC-R Section R301.2.2.2.1 is reserved and replaces IRC Section R301.2.2.2.
- 3.2.22 FBC-R Section R703 replaces IRC Section R703.
- 3.2.23 FBC-R Section R703.2 replaces IRC Section R703.2.
- 3.2.24 FBC-R Section R703.7.3 replaces IRC Section R703.7.3.

4 Conditions of Use

- 4.1 Westlake Royal Stone Products, described in Report Number 1312-01, must comply with all of the following conditions:
 - 4.1.1 All applicable sections in Report Number 1312-01.
 - 4.1.2 The design, installation, and inspections are in accordance with additional requirements of FBC-B Chapter 16 and Chapter 17, as applicable.



Notes

- 1 For more information, visit drjcertification.org or call us at 608-310-6748.
- 2 Capitalized terms and responsibilities are defined pursuant to the applicable building code, applicable reference standards, the latest edition of TPI 1, the NDS, AISI S202, US professional engineering law, Canadian building code, Canada professional engineering law, Qualtim External Appendix A: Definitions/Commentary, Qualtim External Appendix B: Project/Deliverables, Qualtim External Appendix C: Intellectual Property and Trade Secrets, definitions created within Design Drawings and/or definitions within Reference Sheets. Beyond this, terms not defined shall have ordinarily accepted meanings as the context implies. Words used in the present tense include the future; words stated in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural, the singular.
- 3 <https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1702>
- 4 Alternative Materials, Design and Methods of Construction and Equipment: The provisions of any regulation code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by a regulation. Please review <https://www.justice.gov/atr/mission> and <https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#104.2.3>
- 5 <https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1706.2>~:~text=the%20design%20strengths%20and%20permissible%20stresses%20shall%20be%20established%20by%20tests
- 6 The design strengths and permissible stresses of any structural material shall conform to the specifications and methods of design of accepted engineering practice. <https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1706.1>~:~text=Conformance%20to%20Standards-.The%20design%20strengths%20and%20permissible%20stresses,-of%20any%20structural
- 7 <https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1707.1>~:~text=the%20building%20official%20shall%20make%20a%20cause%20to%20be%20made%20C%20the%20necessary%20tests%20and%20investigations%20B%20or%20the%20building%20official%20shall%20accept%20duly%20authenticated%20reports%20from%20approved%20agencies%20in%20respect%20to%20the%20quality%20and%20manner%20of%20use%20of%20new%20materials%20or%20assemblies%20as%20provided%20for%20in%20Section%20104.2.3.
- 8 <https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1703.4.2>
- 9 https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#approved_agency
- 10 https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#approved_source
- 11 <https://www.law.cornell.edu/uscode/text/18/1832> (b) Any organization that commits any offense described in subsection (a) shall be fined not more than the greater of \$5,000,000 or 3 times the value of the stolen trade secret to the organization, including expenses for research and design and other costs of reproducing the trade secret that the organization has thereby avoided. The federal government and each state have a public records act. To follow DTSA and comply state public records and trade secret legislation requires approval through ANAB ISO/IEC 17065 accredited certification bodies or approved sources. For more information, please review this website: Intellectual Property and Trade Secrets.
- 12 <https://www.nspe.org/resources/issues-and-advocacy/professional-policies-and-position-statements/regulation-professional> AND <https://apassociation.org/list-of-engineering-boards-in-each-state-archive/>
- 13 <https://www.cbiteest.com/accreditation/>
- 14 <https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#104.1>~:~text=directed%20to%20enforce%20the%20provisions%20of%20this%20code
- 15 <https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#104.2.3> AND <https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#105.3.1>
- 16 <https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1707.1>
- 17 <https://iaf.nu/en/about-iaf-mla/#>~:~text=Once%20an%20accreditation%20body%20is%20a%20signatory%20of%20the%20IAF%20MLA%20C%20it%20is%20required%20to%20recognise%20certificates%20and%20validation%20and%20verification%20statements%20issued%20by%20conformity%20assessment%20bodies%20accredited%20by%20all%20other%20signatories%20of%20the%20IAF%20MLA%20C%20with%20the%20appropriate%20scope
- 18 True for all ANAB accredited product evaluation agencies and all International Trade Agreements.
- 19 <https://www.justice.gov/crt/deprivation-rights-under-color-law> AND <https://www.justice.gov/atr/mission>
- 20 Unless otherwise noted, the links referenced herein use un-amended versions of the 2024 International Code Council (ICC) 2024 International Code Council (ICC) model codes as foundation references. Mississippi versions of the IBC 2024 and the IRC 2024 are un-amended. This material, product, design, service and/or method of construction also complies with the 2000-2012 versions of the referenced codes and the standards referenced therein. As pertinent to this technical and code compliance evaluation, CBI and/or DrJ staff have reviewed any state or local regulatory amendments to assure this report is in compliance.
- 21 See Adoptions by Publisher for the latest adoption of a non-amended or amended model code by the local jurisdiction. <https://up.codes/codes/general>
- 22 See Adoptions by Publisher for the latest adoption of a non-amended or amended model code by state. <https://up.codes/codes/general>
- 23 <https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3282/subpart-A/section-3282.14>
- 24 <https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280>
- 25 All references to the FBC-B and FBC-R are the same as the 2024 IBC and 2024 IRC unless otherwise noted in the Florida Supplement at the end of this report.
- 26 <https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280#p-3280.2>(Listed%20or%20certified); <https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#listed> AND <https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#labeled>
- 27 <https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1703.4>
- 28 <https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280#>~:~text=All%20construction%20methods%20shall%20be%20in%20conformance%20with%20accepted%20engineering%20practices%20to%20insure%20durable%20C%20livable%20C%20and%20safe%20housing%20and%20shall%20demonstrate%20acceptable%20workmanship%20reflecting%20journeyman%20quality%20of%20work%20of%20the%20various%20trades
- 29 <https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280#>~:~text=The%20strength%20and%20rigidity%20of%20the%20component%20parts%20and/or%20the%20integrated%20structure%20shall%20be%20determined%20by%20engineering%20analysis%20or%20by%20suitable%20load%20tests%20to%20simulate%20the%20actual%20loads%20and%20conditions%20of%20application%20that%20occur



Qualification is performed by a legislatively defined Accreditation Body. ANSI National Accreditation Board (ANAB) is the largest independent accreditation body in North America and provides services in more than 75 countries. DrJ is an ANAB accredited product certification body.

<https://anabpd.ansi.org/Accreditation/product-certification/AllDirectoryDetails?prgID=1&orgID=2125&statusID=4#:~:text=Bill%20Payment%20Date-,Accredited%20Scopes,-13%20ENVIRONMENT.%20HEALTH>

2021 IBC Section 1404.10.1.2.1

See Code of Federal Regulations (CFR) Title 24 Subtitle B Chapter XX Part 3280 for definition: <https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280>

2021 IBC Section 104.11

2021 IRC Section R104.11

2018: <https://up.codes/viewer/wyoming/ifc-2018/chapter/1/scope-and-administration#104.9> AND 2021: <https://up.codes/viewer/wyoming/ibc-2021/chapter/1/scope-and-administration#104.11>

Approved is an adjective that modifies the noun after it. For example, Approved Agency means that the Agency is accepted officially as being suitable in a particular situation. This example conforms to IBC/IRC/IFC Section 201.4 (<https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#201.4>) where the building code authorizes sentences to have an ordinarily accepted meaning such as the context implies.

<https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1707.1>

Multilateral approval is true for all ANAB accredited product evaluation agencies and all International Trade Agreements.

2021 IBC Section 1404.10.3



SAFETY DATA SHEET

1. Identification

Product identifier	Adhered Manufactured Stone Masonry Veneer Units
Other means of identification	
Synonyms	Cultured Stone, Prostone, Versetta Stone
Recommended use	Building material (includes all types and colors)
Recommended restrictions	Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name	Westlake Corporation
Address	2801 Post Oak Blvd., Suite 600 Houston, TX 77056 United States
Telephone	+1-713-960-9111
Website	www.westlake.com
E-mail	sdsinfo@westlake.com
Emergency phone number	CHEMTREC 1-800-424-9300 CHEMTREC International +1 703-741-5970

2. Hazard(s) identification

Physical hazards	Not classified.
Health hazards	Acute toxicity, inhalation Category 4 Serious eye damage/eye irritation Category 1 Sensitization, skin Category 1 Carcinogenicity Category 1A Specific target organ toxicity, repeated exposure Category 1

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement May cause an allergic skin reaction. Causes serious eye damage. Toxic if inhaled. May cause respiratory irritation. May cause cancer. Causes damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Avoid breathing vapors. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

Response If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Storage Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

96.14% of the mixture consists of component(s) of unknown acute oral toxicity. 96.14% of the mixture consists of component(s) of unknown acute dermal toxicity.

3. Composition/information on ingredients**Mixtures**

Chemical name	Common name and synonyms	CAS number	%
Portland Cement Clinker		65997-15-1	10 - 17
Quartz		14808-60-7	10 - 17
Slags, Ferrous Metal, Blast Furnace		65996-69-2	1 - 5

4. First-aid measures**Inhalation**

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a poison center or doctor/physician.

Skin contact

Injuries to skin due to abrasion, laceration, or crushing should be treated by flushing with clean water, followed by first aid (application of disinfectant and bandage). Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

Eye contact

Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Ingestion

Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Dusts may irritate the respiratory tract, skin and eyes. Coughing. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects. Upon repeated high levels of dust exposure, crystalline silica content of the dust may cause delayed or chronic respiratory illnesses, including silicosis and cancer.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information

IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures**Suitable extinguishing media**

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media

None known.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

Avoid dust formation.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

No unusual fire or explosion hazards noted.

6. Accidental release measures**Personal precautions, protective equipment and emergency procedures**

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe dust. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Minimize dust generation and accumulation. Collect dust using a vacuum cleaner equipped with HEPA filter. Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage**Precautions for safe handling**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Cutting, crushing, or grinding crystalline silica-bearing materials will release respirable crystalline silica. Minimize dust generation and accumulation. Do not breathe dust. Do not get this material in contact with eyes. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection**Occupational exposure limits**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Portland Cement Clinker (CAS 65997-15-1)	PEL	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.
Quartz (CAS 14808-60-7)	PEL	0.05 mg/m ³	Respirable dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Portland Cement Clinker (CAS 65997-15-1)	TWA	50 mppcf	
Quartz (CAS 14808-60-7)	TWA	0.1 mg/m ³	Respirable.
		2.4 mppcf	Respirable.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Portland Cement Clinker (CAS 65997-15-1)	TWA	1 mg/m ³	Respirable fraction.
Quartz (CAS 14808-60-7)	TWA	0.025 mg/m ³	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Portland Cement Clinker (CAS 65997-15-1)	TWA	5 mg/m ³	Respirable.
		10 mg/m ³	Total
Quartz (CAS 14808-60-7)	TWA	0.05 mg/m ³	Respirable dust.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

Appropriate engineering controls	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the Occupational Exposure Limit (OEL), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. Provide eyewash station.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Wear protective gloves.
Other	Wear suitable protective clothing. Wear suitable protective footwear.
Respiratory protection	Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Chemical respirator with organic vapor cartridge, full facepiece, dust and mist filter.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance	
Physical state	Solid.
Form	Powder.
Color	Not available.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	-0.01 hPa estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	5.25 g/cm3 estimated
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Specific gravity	5.25 estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Powerful oxidizers. Chlorine.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	When product is shaped or cut, respirable dust may be generated that, when inhaled, can cause respiratory system irritation. Prolonged or repeated inhalation exposure may cause chronic illness.
Skin contact	Dust or powder may irritate the skin. May cause an allergic skin reaction.
Eye contact	Causes serious eye damage.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Dusts may irritate the respiratory tract, skin and eyes. Coughing. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity	Toxic if inhaled.
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Components	Species	Test Results
Slags, Ferrous Metal, Blast Furnace (CAS 65996-69-2)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 4000 mg/kg
Inhalation		
<i>Dust</i>		
LC50	Rat	> 230.1 mg/m3, 6 Hours
Oral		
LD50	Rat	> 2000 mg/kg
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Erythema value	0.0000	
Oedema value	0.0000	
Serious eye damage/eye irritation	Causes serious eye damage.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	May cause an allergic skin reaction.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	

Carcinogenicity

In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003) According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. May cause cancer. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.

IARC Monographs. Overall Evaluation of Carcinogenicity

Quartz (CAS 14808-60-7)

1 Carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Quartz (CAS 14808-60-7)

Cancer

US. National Toxicology Program (NTP) Report on Carcinogens

Quartz (CAS 14808-60-7)

Known To Be Human Carcinogen.

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure

May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

Not an aspiration hazard.

Chronic effects

Prolonged inhalation may be harmful. Causes damage to organs through prolonged or repeated exposure. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability

No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions

Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Waste from residues / unused products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

All components of the mixture on the TSCA 8(b) inventory are designated "active" or exempt.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Quartz (CAS 14808-60-7)

Cancer
lung effects
immune system effects
kidney effects

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

No (Exempt)

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Quartz (CAS 14808-60-7)

California Proposition 65



WARNING: This product can expose you to Quartz, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

Quartz (CAS 14808-60-7)

Listed: October 1, 1988

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 06-05-2023

Version # 01

HMIS® ratings Health: 3*
Flammability: 0
Physical hazard: 0

NFPA ratings Health: 3
Flammability: 0
Instability: 0

NFPA ratings



Disclaimer

The technical information given herein is accurate to the best of our knowledge at the time of preparation, or prepared from sources believed to be reliable. Westlake cannot anticipate all conditions under which this information and our product, or the products of other manufacturers in combination with our product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product; comply with all laws and procedures; assume liability for loss, injury, damage or expense due to improper use; and determine the suitability of the product for your intended use. The information in this sheet is valid for cited regulations published as of the date this document was prepared. Updates may be prepared as the regulations are amended or pending revised information about the product. It is the customer's responsibility to seek updated regulatory information on any specific Westlake product.

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Product Evaluation

EC21 | 0422

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: EC-21

Effective Date: April 1, 2022

Re-evaluation Date: April 2026

Product Name: Cultured Stone®, ProStone®, or Cultured Brick® Manufactured Stone Veneer

Manufacturer: Westlake Royal Building Products™
2801 Post Oak Blvd
Suite 600
Houston, TX 77056
(855) 769-2585

General Description:

Cultured Stone®, ProStone®, and Cultured Brick® are precast manufactured stone made from Portland cement, an aggregate formulation, and mineral oxide agents to resemble natural stone in color and in texture. The stone products are used as non-loadbearing exterior veneer.

Limitations:

Design Pressure: +110 psf / -70 psf

Wall Bracing: The Cultured Stone®, ProStone®, or Cultured Brick® manufactured stone is not to be used to resist lateral loads (must not be used as wall bracing or as a shearwall).

Installation:**General Installation Requirements:**

The stone veneer must be installed in accordance with the "Installation Guide and Detailing Options for Compliance with ASTM C1780 for Adhered Manufactured Stone Veneer" issued by the National Concrete Masonry Association (NCMA), referred to as 'Installation Guide' in this evaluation report, and this product evaluation report. Where differences occur between the Installation Guide and this evaluation report, this evaluation report must be followed.

All fasteners must be corrosion resistant in accordance with IRC and IBC requirements.

Wall Framing: Wall framing must be capable of resisting the design loads specified. Wall framing members must be minimum nominal 2x4 Spruce-Pine-Fir dimension lumber. Space the wall framing members a maximum of 16" on center.

Wall Sheathing: The exterior surface of the wall framing must be sheathed with wood structural panels (either minimum 1/2" plywood or minimum 7/16" OSB). The sheathing must be secured to the wall framing to resist the required wind loads.

Wall Bracing: Wall bracing must be installed as required for the structure.

Water-Resistive Barrier: Install two layers of a water-resistive barrier (WSB) over the wall sheathing in accordance with either IRC requirements or IBC requirements. The WRB must be installed as specified in the Installation Guide.

Lath: The lath must be minimum 2.5lb/yd² corrosion resistant diamond mesh conforming to ASTM C847. The lath is applied over the water-resistive barrier oriented with cups up to retain the mortar in accordance with the manufacturer's installation instructions. The lath is secured to the wall studs with minimum 0.120" smooth shank corrosion resistant nails with a minimum 7/16" diameter head. The fasteners must have a sufficient length to penetrate into the wall studs a minimum of 1". The fasteners must be spaced a maximum of 6" on center vertically along each wall stud.

Mortar: Mortar to be comply with one of the following:

- Type N or Type S of Specification C270
- Type N or Type S of Specification C1714
- ANSI A118.1-2013.1, ANSI A118.4-2013.1, or ANSI A118.15-2012.1

The mortar must be mixed to a firm, moist consistency. Mortar that is too wet will be weak and messy. Mortar that is too dry and crumbly will not provide a proper bond.

Stone Installation: Using a notched trowel, apply an average thickness of 1/2" scratch coat or mortar over the metal lath. Apply setting bed mortar to wall, back butter stone, or both. Do not apply more mortar to the wall than a workable area given weather conditions. Apply pressure to the stone to ensure a good bond. Ensure complete contact between the mortar bed and the back

surface of the stone. Install the corner pieces first. Stone may be applied either from the bottom up or from the top down, working from the corners to the center.

If the stone is being applied in extremely hot or dry weather, then the back of each stone and the surface to which it is being applied must be moistened with a fine spray of water. The stone must not be applied in below freezing temperatures.

Note: Keep the manufacturer's installation instructions available on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.



ENVIRONMENTAL CLAIM VALIDATION SUMMARY

Westlake Royal Stone LLC

Cultured Stone

Report Number:

260375-4210

Validation Period:

25 Mar 2022 - 20 Dec 2025

Claim:

Cultured Stone products contain a minimum of 60% pre-consumer recycled content

Method:

Environmental Claim Validation Procedure (ECVP) for Recycled Content, UL ECVP 2809-2, Second Edition, dated June 20, 2024. Recycled Content is defined in accordance with ISO 14021.

Facility:

Napa

50-YEAR TRANSFERABLE LIMITED WARRANTY

LIMITATIONS ON THE TRANSFERABILITY OF THIS
WARRANTY ARE SET FORTH HEREIN

1. Subject to the following terms, **Westlake Royal Stone LLC** ("WRS") warrants under this express limited warranty ("Warranty") to the original purchaser and subsequent owners of its **Cultured Stone®** brand manufactured stone or brick veneer (collectively, the "Product" or the "Products") that for fifty (50) years from the date of sale of the Product, the Product will not blister, peel, flake, delaminate or crack excessively (each, a "Defect") as a result of manufacturing defects when used on structures (each, a "Structure") conforming to local building codes and installed in accordance with the *Concrete Masonry and Hardscapes Association's* written instructions issued before and closest in time to original date of the installation of the Product in the Structure. The definition of "veneer" contained in the *International Building Code* is determinative for purposes of establishing what Products constitute WRS's manufactured stone or brick veneer and are covered by this Warranty.
2. In the event of a Defect, WRS will, at its option, either: (1) pay the reasonable replacement cost of the defectively manufactured Product; (2) provide a replacement of the defective Product or a Product of a similar design; or (3) pay the reasonable cost for repair of the defective Product. This Warranty applies only to Products manufactured by WRS and does not apply to any other products or materials, including exterior walls, exterior wall envelopes, backing to which Products are secured, or water-resistive barriers.
3. This Warranty runs with the sale or transfer of the Structure into which the Products have been incorporated to subsequent owners of the Structure, but the warranty period as to such subsequent owners is limited to fifteen (15) years from the original date of sale of the Product.
4. No warranty whatsoever is made with respect to the manufacture or performance of materials or components of construction not sold or manufactured by WRS, including, but not limited to, mortar, lath, weather resistant barriers, doors, windows, sealants, flashings, roofing, copings, sheathing and framing. Further, WRS makes no warranties whatsoever with respect to aesthetics, design and engineering of the Structure into which Products are incorporated, or workmanship involved in the application of any Products warranted hereunder. The Product is not waterproof and should not be used on exterior or interior steps or risers. The Product must be incorporated into a wall assembly designed by a building professional that contains adequate mechanisms for water management. WRS has no responsibility for damage caused by moisture intrusion through the building envelope or around any of the building envelope components or by vapor transmission from the inside of the Structure to a moisture sensitive part of the wall assembly.
5. This Warranty covers only manufacturing defects in the Products. WRS's manufacturing process has been designed to imitate the random beauty and nature of real stone. As such, stone surfaces on the Products may contain small air holes or surface anomalies. These differences add to the overall character of the Products and are not considered manufacturing defects. Changes in the appearance of Products caused by normal weathering or efflorescence, which is a natural phenomenon of all concrete products, are also not considered manufacturing defects. Normal weathering is defined as exposure to sunlight and extremes of weather and atmosphere, which will cause any colored surface to fade, chalk, or accumulate dirt or stains.

This Warranty is effective for sales after March 19, 2025 ("Effective Date") and supersedes all previously published versions of this Warranty for Products sold on or after the Effective Date.

Last Modified: March 19, 2025

6. Without limiting anything else in this Warranty, WRS disclaims and assumes no liability for the following:
 - a. improper use, application or installation of Products;
 - b. use of Products as part of improperly designed or constructed assemblies or Structures or with defective adjacent materials or assemblies;
 - c. failure to follow applicable specifications, instructions and construction details;
 - d. use of any sealing or coating on the Product other than one that is silane or siloxane and based in strict compliance with sealant manufacturer's instructions;
 - e. other design or construction defects, deficiencies and failures on a Structure where Product is used;
 - f. undertaking on-site inspections or any on-site activities or making oral statements at the site;
 - g. any damage or injury whatsoever caused in whole or in part by acts of God, natural phenomenon or physical abuse, such as, but not limited to, falling objects, projectiles, fire, earthquake, floods, windstorm, hail, tornadoes, lightning, hurricanes, other abnormal weather conditions, pests, chemical fumes, foreign substances in the air, misuse, vandalism, civil disobedience, war, damage caused by remodeling or renovation;
 - h. damage resulting from moisture intrusion, mold, settlement of Structure or other Structure or wall movement;
 - i. discoloration or deterioration due to airborne contaminants, contact with any chemicals or paint, staining or oxidations;
 - j. any accumulation of water or moisture in wall assemblies;
 - k. negligence or accidents by any party or parties in maintaining the Products, including, but not limited to, use of a pressure washer or harsh or acid chemicals of any nature, including vinegar, to clean;
 - l. replacement of Product if Product is mixed with other chemicals or materials not approved by WRS in writing;
 - m. any cause beyond WRS's control; and
 - n. any workmanship, aesthetics or other damage or injury not solely and directly caused by a manufacturing defect in Products as covered under this Warranty.
7. This Warranty is exclusive, the only warranty made by WRS with respect to the Products, and is in lieu of all other warranties or remedies of any nature whatsoever to the original purchaser or subsequent owners under any theory of liability, whether in contract, tort, statutory law or otherwise, except for actual economic damages for personal physical bodily injury. All other warranties, representations or remedies with respect to the Products, whether oral, written, express or implied or imposed by law, are disclaimed by WRS and are waived by the original and subsequent purchasers, particularly the implied warranties of merchantability or fitness for a particular purpose or arising from a course of dealing, usage or trade practice, or any warranty against patent infringement or warranty for work performed in a workmanlike manner. WRS shall not be liable under any circumstances for any incidental, special, indirect or punitive damages to any party whatsoever, including but not limited to, loss of profits, damage to the Structure or its contents, and attorney's fees. This exclusion of damages includes, but is not limited to, payments of any nature made because of actual or potential liability to others, damages to any other part of the Structure to which the Products are incorporated or damage to any other property.
8. WRS shall have no further obligation or liability of any kind, other than as stated in this Warranty, and it is further agreed and understood that the price paid for Products is consideration for the limitation of WRS's liability hereunder.
9. Warranty coverage is limited as set forth herein and does not cover labor to remove or install Products and does not cover the cost of shipping replacement Product. The remedies contained herein shall be sole and exclusive.

10. WRS's obligations under this Warranty shall only begin if the original purchaser or subsequent owner notifies WRS, in writing, within sixty (60) days of actual or constructive notice of the alleged Defect. WRS shall be allowed a reasonable period of time and authorization to remove samples of the Product, so as to perform any testing WRS deems necessary to investigate and determine the cause of the alleged Defect. The original purchaser or subsequent owner shall make temporary repairs in a timely manner to prevent further damage to the Structure, contents of the Structure, and the Products until the cause of the alleged Defect is determined and permanent repair recommendations may be made, as applicable.
11. WRS's obligation to supply replacement Product pursuant to this Warranty shall become null and void if, in the sole judgment of WRS, any of the following events shall occur: (i) if after installation of the Products there are any alterations or repairs made to the Structure that affect any component of the wall assembly of which Products are a part in any way; (ii) if the original purchaser or subsequent owner or any of their respective tenants fail to use reasonable care in maintaining the Products before and after installation; (iii) if the Products are installed in a manner that causes them to be repeatedly or continuously wet, such as if installed in the direct path of a water sprinkler, pool, jacuzzi, or similar water device; or (iv) if the Products are installed in an area that exposes them to de-icing salts or other harsh chemicals.
12. Applicability of the *Magnusson-Moss Act* is hereby disclaimed.
13. Any provision of this Warranty that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof or affecting the validity of enforceability of such provision in any other jurisdiction.
14. WRS's failure at any time to enforce any of the terms or conditions stated herein shall not be construed to be a waiver of such provisions.
15. This Warranty shall be interpreted under the laws of the *State of New York*.
16. Neither the sales personnel nor other agents of WRS are authorized to make warranties about the Products. Oral statements by WRS employees or agents do not constitute warranties, shall not be relied upon by the original purchaser or subsequent owner or any third party, and are not part of the contract for sale or warranty as stated herein. No distributor, dealer or representative of WRS has the authority to change or modify this Warranty either orally or in writing in any respect. The entire and final contract is embodied in this Warranty and no other warranties are given beyond those set forth in this Warranty.
17. **WARRANTY REGISTRATION**

Scan the QR code or visit the link below to easily register your Westlake Royal Stone LLC warranty. You will receive an email confirmation once you have submitted the form. If you have questions about a warranty that has already been registered, please email us at stoneclaims@westlake.com.

Link: [Register your Warranty](#)

