

ARCHITECTURAL SPECIAL SPECIAL

Architectural Technical Data

ProVia's stone products are designed to meet or exceed building code requirements. Independent testing confirms compliance with the IAPMO Acceptance Criteria (AC51) for Precast Manufactured Stone. (Supporting test data is available upon request.)

Building codes may vary by area. Check with local building officials before installing stone.

For additional technical information please visit: provia.com/professionals

Ingredients	Light Weight Aggregate, Portland Cement, Mineral Oxide Color Pigment
Code Acceptability & Certification	IAPMO ER - 462 ASTM C1670
Color Retention	Only permanent mineral oxide color pigments are used. Even after years of weathering, no objectionable color change can be observed.
Freeze- Thaw Durability	Tested in accordance with ASTM C1690 - Less than 1.5 percent weight loss at 50 cycles.
Shear Bond (Adhesion)	Tested in accordance with ASTM C1670 - greater than 50 psi shear bond strength.
Absorption	Tested in accordance with ASTM C1670
Saturated Density	Tested in accordance with ASTM C1670- weight less than 15lbs per square foot saturated.
Thermal Resistance	Tested in accordance with ASTM C177- R valve .62 (FT ² - F- HR) / BTU at 1.5 inch thickness.
Compressive Strength	Tested in accordance with ASTM C1670 compressive strength is greater than 2100 psi.
Weight Per Square Foot	All adhered manufactured stone veneer profiles weight less than 15lbs per square foot saturated.



IAPMO-ES Evaluation Report

ER-462

Originally Issued: August 26, 2016 Revised: September, 19, 2018 Valid Through: August 31, 2019

www.iapmoes.org | 877-443-7778 | 909-472-4100

ProVia LLC
ProVia Manufactured Stone

CSI Sections: 04 73 00 Manufactured Stone Masonry

1.0 RECOGNITION

ProVia LLC has been evaluated for use as a wall covering over exterior walls of wood studs, cold-formed steel framing or concrete masonry. The composition, strength, durability, and thermal resistance of the ProVia manufactured stone was evaluated for compliance with the following codes:

- 2012, 2009 and 2006 International Building Code® (IBC)
- 2012, 2009 and 2006 International Residential Code® (IRC)
- ICC-ES AC51

2.0 LIMITATIONS

Use of ProVia manufactured stone is recognized in this report as subject to the following limitations:

- 2.1 "Expansion or control joints used to limit the effect of differential movement of precast stone 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." [AC51]
- 2.2 "For installation in accordance with the 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 precast stone veneer, must be designed to limit deflection to $\frac{1}{600}$ of the span." [AC51]
- 2.3 "In jurisdictions adopting the IRC, where the seismic provisions of Section R301.2.2 apply, the average weight of the wall supporting the precast stone veneer, including the weight of the veneer system must be determined. When this weight exceeds the applicable limits of IRC Section 301.2.2.2.1, an engineered design of the wall construction must be performed in accordance with IRC Section R301.1.3" [AC51]
- **2.4** "When installed on exterior stud walls, the veneer units shall be installed a minimum of 4 inches (102 mm) above the earth, or a minimum of 2 inches (51 mm) above paved areas, or a minimum of 1/2 inch (12 mm) above exterior walking surfaces which are supported by the same foundation that supports the exterior wall" in accordance with 2012 IBC Section 1405.10.1.3 or 2012 IRC Section R703.12.1.

3.0 PRODUCT USE

3.1 ProVia LLC manufactured stone complies with Section 1405.10 of the IBC and Section R703.7 of the IRC as an exterior wall covering. The backing for ProVia's "adhered veneer shall be of concrete, masonry, steel framing or wood framing." [Section 1404.4 of the IBC] The veneer units shall be adhered to cement plaster, concrete or concrete masonry backings when installed in accordance with the manufacturer's specified installation instructions (Installation Guide for Adhered Manufactured Stone Veneer, 4th Edition, published by the Masonry Veneer Manufacturers Association), ASTM C1780, this report and the applicable code. Lath, lath accessories and fasteners shall be corrosion-resistant. The installation instructions shall be strictly adhered to and be available at the jobsite during application.

IAPMO-ES Evaluation Report (cont.)

3.0 PRODUCT USE (cont.)

- **3.2** ProVia manufactured stone veneer shall be installed in accordance with Section 1405.10.1 of the IBC or Section R703.12 of the IRC, as applicable, ASTM C1780 and the installation instructions. In the event of a conflict the more restrictive requirement governs.
- **3.3** ProVia manufactured stone veneer units may be applied over the assemblies described in Table 1 of this report when installed in accordance with the referenced code sections and this report.

4.0 PRODUCT DESCRIPTION

4.1 ProVia manufactured stone is manufactured concrete products formed to resemble natural stone in both texture and color. The individual masonry veneer units shall be a minimum of $^{3}/_{4}$ inch (19 mm) thick and a maximum of $^{2}/_{2}$ inches (63.5 mm) thick with a minimum compressive strength of 1,800 psi (12.4 MPa). The installed products "average saturated weight must not exceed 15 pounds per square foot (73 kg/m²)" [AC51]. The recognized veneer styles are shown in Table 2 of this report.

Table 2 - Recognized Veneer Style Names

Dry Stack, Fieldstone, Ledgestone, Limestone, Natural Cut™, PrecisionFit™, River Rock, Terra Cut™, Chisel Cut

4.2 The veneer, at an average thickness of 1.037 inches (26.3 mm), has an average thermal resistance (R-value) of 2.06 hr ft²°F/Btu when tested in accordance with ASTM C518.

5.0 IDENTIFICATION

5.1 Boxes of ProVia manufactured stone is identified with the manufacturer's name, the pattern/style name, manufacturing date, manufacturing location, and evaluation report number (ER-462). Either Mark of Conformity may be used as shown below:



6.0 SUBSTANTIATING DATA

- **6.1** Data in accordance with ICC-ES Acceptance Criteria for Precast Stone Veneer (AC51), approved June 2013 (editorially revised September 2014).
- 6.2 Reports of Thermal Transmission Properties testing in accordance with ASTM C518.
- 6.3 Test results are from laboratories in compliance with ISO/IEC 17025.
- **6.4** Manufacturer's descriptive literature and installation instructions.

7.0 CONTACT INFORMATION

ProVia 1550 County Road 140 Sugarcreek, Ohio 44681 800.669.4711 provia.com

Visit provia.com/professionals for a PDF copy of the full IAPMO 462 Evaluation Report

IAPMO-ES Evaluation Report (cont.)

Table 1 Application of N	Table 1 Application of Masonry Veneer Units				
Item	Code Section	Notes			
1. Mortar Scratch Coat	IBC Sections 1404.2 and 2510.6; IRC Sections R703.2 and 703.6.3	Minimum ³ / ₈ inch (9.5 mm) thick, maximum of ⁵ / ₈ inch (15.9 mm) thick scratch coat of Type S or N mortar complying with ASTM C270, scored horizontally in accordance with IBC Section 2512.6.			
2. Water Resistive Barrier	IBC Section 1405.10.1.1; IRC Section R703.2				
3. Flashing	IBC Section 1405.4 (2006 IBC Section 1405.3) and Section 1405.10.1.2; IRC Sections R703.8 and R703.12.2 (2006 IRC Section R703.8)				
4. Weep Screed	IBC Section 1405.10.1.2; IRC Section R703.12.1 (2009 IRC Section R703.6.2.1); and TMS 402-11 Section 6.1.6.2 (ACI 530 Section 6.1.5.2)				
5. Lath and Fasteners	IBC Section 2510.3 (ASTM C926 and ASTM C1063); IRC Section R703.6.1	For proprietary fasteners shear and pull out capacities shall be justified to the satisfaction of the authority having jurisdiction (AHJ).			
6. Over Wood Based or Gypsum Sheathing Supported by Steel or Wood Framing	As given in Items 1, 2, 3, 4 and 5 and Notes	Items 1, 2, 3, 4 and 5 with framing spaced at 16 inches on-center maximum, lath shall be 2.5 lb/yd² self-furring diamond metal lath complying with ASTM C847 fastened in accordance with the requirements of ASTM C1063, Section 7.10.2, and Section R703.6.1 of the IRC with fasteners spaced a maximum of 6 inches on-center.			
7. Over Open Studs	As given in Items 1, 2, 3, 4, 5 and 6 and Notes	Items 1, 2, 3, 4, 5, and 6 except with 2.5 lb/yd² galvanized expanded diamond mesh metal lath complying with ASTM C847			
8. Over Concrete or Concrete Masonry	Prepare surfaces in accordance with IBC Section 2510.7 and Section 5.2 of ASTM C926	The veneer may be adhered to backings of clean concrete masonry without lath, in accordance with Section 2510.7 of the IBC and Section 5.2 of the ASTM C926. Or Items 1, 3, 4 and 5 except with metal lath complying with ASTM C847; or 1.4 lb/yd² woven wire plaster base complying with ASTM C1032.			
 Application of Veneer Units SI conversions: 1 inch = 1 lb/yd² = 	IBC Section 2103.9 (2006 IBC Section 2103.8) 0.54 kg/m²	Nominal ¹ / ₂ inch thick setting bed of Type S or N mortar applied to the back of the veneer units in accordance with instructions as noted in Section 3.2 of this report.			

Stone Guide Specifications

SECTION 04 73 01 MANUFACTURED STONE

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Manufactured stone masonry, accessories, and related materials.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
 - 1. For manufactured stone units, include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
- B. Shop Drawings: Show fabrication and installation details for manufactured stone units including dimensions.
- C. Samples for Initial Selection: For colored mortar.
- D. Samples for Verification:
 - 1. For each color and texture of manufactured stone required, 4 feet by 4 inches in size.
 - 2. For colored mortar. Make Samples using same sand and mortar ingredients to be used on Project. Label Samples to indicated types and amounts of pigments used.
- E. Field Panel Samples: For each color, texture and shape of manufactured stone unit required, minimum 4 feet by 4 feet in size.
 - 1. Make available for Architect's review at Project site (or at distributor showroom, if acceptable to Architect).
 - 2. Make Samples from materials to be used for units used on Project.

F. Material Test Reports:

- 1. Provide IAPMO (International Association of Plumbing and Mechanical Officials) ER-462.
- 2. Provide IAPMO Acceptance Criteria for Precast Stone (IAPMO-ES AC51) Test Reports for physical properties.

1.3 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Member of the National Concrete Masonry Association (ncma.org) and the International Association of Plumbing and Mechanical Officials (IAPMO) (www.iapmo.org.)
- B. Source Limitations for Manufactured Stone: Obtain manufactured stone units through single source from single manufacturer.
- C. Source Limitations for Raw Materials: Obtain ingredients of a uniform quality, including color, from one manufacturer for each cementitious component and from one source or producer for each raw material.
- D. Certification: Manufacturer's IAPMO evaluation report certifying that a qualifying inspection of the facilities manufacturing process has been successfully completed and manufacturer is in compliance with IAPMO operational standards and Acceptance Criteria for Precast Stone (AC 51).
 - 1. Density: ASTM C 567, Standard Test Method for Density of Structural Lightweight Concrete.
 - Freeze/Thaw: ASTM C 666/666M, Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing.
 - 3. Compressive Strength: ASTM C 39, Standard Test Method Compressive Strength in Cylindrical Concrete Specimens.
 - 4. Flexural Strength: ASTM C 348, Standard Test Method for Flexural Strength of Hydraulic-Cement Mortars.
 - 5. Tensile Strength: ASTM C 190-85, Method of Test for Tensile Strength of Hydraulic Cement Mortars (Withdrawn 1990).
 - 6. Absorption: IAPMO-ES AC 51 Section 8.2, "Absorption."
 - 7. Thermal Properties: ASTM C518, Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.

- E. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Build 4 feet by 4 feet mockup of typical wall area as shown on Drawings in location directed by Architect.
 - 2. Show penetrations, terminations, corner detail, mortar color and tooling.
 - 3. May remain as part of the work once approved by Architect.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Coordinate delivery of manufactured stone to avoid delaying the work and to minimize the need for on-site storage.
- B. Pack, handle, and ship manufactured stone units in suitable handi-packs or crates on 40 by 48 inch wooden pallets.
 - 1. Pack units so that faces do not rub against other units.
 - 2. When using flatbed delivery equipment, use brick boards to securely strap the load to prevent damage to the units.
 - 3. Keep units ventilated under covers to prevent condensation.
- C. Store cementitious materials and metal lath on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.
- D. Store mortar aggregates where grading and other required characteristics can be maintained and contamination can be avoided.

1.5 PROJECT CONDITIONS

- A. Environmental Requirements: Maintain materials and ambient temperature in area of installation at minimum 40 degrees F prior to, during, and for 48 hours following installation.
- B. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Do not use units containing visible frozen moisture. Do not use calcium chloride or anti-freeze admixtures.
- C. Hot-Weather Requirements: If temperature exceeds 80 degrees F, additional water will need to be added on the scratch-coated surface and the backs of the manufactured stone units being applied. Providing shade and/or frequent misting of the wall may be required. Consult with mortar manufacturer to determine if hot weather mortor mix options are available. Local building code hot weather methods should be followed.

1.6 WARRANTY

- A. Lifetime Limited Warranty on Materials: Covers stone installed in accordance with manufacturer's written instructions and recommendations.
 - 1. Provide new materials in lieu of defective materials.

1.7 EXTRA MATERIALS

- A. Provide extra units in shapes, colors and sizes employed.
 - 1. Provide 5 percent of the coverage area for corners and flats.

Stone Guide Specifications (cont.)

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. ProVia, 1550 County Road 140, Sugarcreek, OH 44681, Phone: 800.669.4711,

Fax: 877-786-4971, Email: sales@provia.com, Website: provia.com/stone.

- 1. No Substitutions.
- B. Authorized Distributor: [Contact Information]

2.2 MANUFACTURED STONE

- A. Limestone Profiles (with matching corner pieces): Allegheny, Amherst, Baja, Blue Ridge, Buckingham, Buff, Harbor, Nantucket, Ohio Vintage, Sandusky Shore.
- B. Ledgestone Profiles (with matching corner pieces): Brighton, Canyon, Chesapeake, Mystic, Osage, Oxford, Rushmore, Saginaw, Santee, Southbriar, Susquehanna.
- C. Dry Stack Profiles (with matching corner pieces): Catawba, Colorado, Erie, Huron, Lakepointe, New England, Ottawa, Phoenix, Seneca, Shawnee, Whisperwood.
- D. Fieldstone Profiles (with matching corner pieces): Mojave, Old Dominion, Pennsylvania, Shenandoah, Summerwinds, Strathmore, Top Rock.
- E. River Rock Profiles (with matching corner pieces): Michigan, Mountain.
- F. Natural Cut™ Profiles (with matching corner pieces): Ashworth, Fernwood, Woodbridge
- G. Terra Cut™ Profiles (with matching corner pieces): Frost, Slate, Russet, Summit
- H. PrecisionFit™ Profiles (with matching corner pieces): Adobe Sands, Driftwood, Sage Grey
- I. Chisel Cut[™] Profiles (with matching corner pieces): Brindle, Cascade, Laurelwood, Olympus, Silverlake, Sterling, Wellington.

J.	Blended Profiles (with matching co	orner pieces): [] percent []	and []
	percent []	ļ. — — — — — — — — — — — — — — — — — — —		

2.3 MANUFACTURED STONE ACCESSORIES

- A. Limestone Hearthstone:
 - 1. Color: Buff, Grey, Brown, Natural, Ivory.
 - 2. Size: [19½ inches wide by 19½ inches high by 1¾ inch thickness].

B. Half Hearthstone:

- 1. Color: Buff, Grey, Brown, Natural, Ivory.
- 2. Size: [20 inches wide by 12 inches high by 1¾ inch thickness].
- C. Limestone Capstones (peaked):
 - 1. Color: Buff, Grey, Brown, Natural, Ivory.
 - 2. Size: [19¾ inches wide by 15½ inches long peaked/w 7/8in] or [19¾ inches wide by 11¼ inches long peaked/w 7/8in].

D. Flat Wall Capstones:

- 1. Color: Buff, Grey, Brown, Natural, Ivory.
- 2. Size: [24 inches wide by 12 inches high by 2½ thickness] or [24 inches wide by 14 inches high by 2½ thickness] or [24 inches wide by 16 inches high by 2½ thickness].

E. Hydrant Stone:

- 1. Color: Buff, Grey, Brown, Natural, Ivory.
- 2. Size: [6% inches wide by 7½ inches high by 1¾ inch thickness, 1 inch diameter hole].

F. Keystones:

- 1. Color: Buff, Grey, Brown, Natural, Ivory.
- 2. Size: $[11\frac{1}{2}]$ inches top width by 11 inches high by 7 inches bottom width by $1\frac{3}{4}$ inch thickness] or $[8\frac{7}{8}]$ inches top width by 8 inches high by 6 inches bottom width by $1\frac{3}{4}$ inch thickness].

G. Light Base:

- 1. Color: Buff, Grey, Brown, Natural, Ivory.
- 2. Size: [7½ inches wide by 10½ inches high by 1¾ inch thickness, 4½ inch diameter hole].

H. Receptacle Stone:

- 1. Color: Buff, Grey, Brown, Natural, Ivory.
- 2. Size: [6% inches wide by 7% inches high by 1% inch thickness, 2% inch wide x $4^{1/4}$ inch high opening].

I. Column Caps

- 1. Color: Buff, Grey, Brown, Natural, Ivory.
- 2. Size: [14 inches wide by 14 inches high by 2½ inches deep] or [22 inches wide by 22 inches high by 2½ inches deep] or [31 inches wide by 31 inches high by 2½ inches deep].

J. Limestone Water Sill:

- 1. Color: Buff, Grey, Brown, Natural, Ivory.
- 2. Size: [23% inches wide by 3 inches high by 3 inches deep with 1" wash].
- 3. Provide sloped top surface and drip edge.

- K. Limestone Row Locks
 - 1. Color: Buff, Grey, Brown, Natural, Ivory.
 - 2. Size: $[5\frac{1}{2}$ inches wide by $7\frac{1}{2}$ inches high by $1\frac{3}{4}$ inch thickness] or [4 inches wide by 5 inches high by $1\frac{3}{4}$ inch thickness].
- L. Flat Window Trim
 - 1. Color: Buff, Grey, Brown, Natural, Ivory.
 - 2. Size: [22½ inches wide by 6½ inches high by 1½ inch thickness].
- M. Shutter Block
 - 1. Color: Buff, Grey.
 - 2. Size: [13½ inches wide by 2 inches high by 2½ inch thickness].
- N. 6x8 Trim Stone
 - 1. Color: Buff, Grey, Brown, Natural, Ivory.
 - 2. Size: [6 inches wide by 8 inches high by 1¾ inch thickness].
- O. Mantel
 - 1. Color: Buff, Grey, Brown, Natural, Ivory.
 - 2. Size: [48 inches wide by 10 inches long by $2\frac{1}{2}$ inch thickness] or [60 inches wide by 10 inches long by $2\frac{1}{2}$ inch thickness].
- P. Mantel Bracket
 - 1. Color: Buff, Grey, Brown, Natural, Ivory.
 - 2. Size: [2½ inch wide 10½ inches high by 6½ inches deep].

2.4 MANUFACTURED STONE - MATERIALS

A. Regional Materials: Provide manufactured stone units, accessories, metal lath, and mortar ingredients that have been manufactured within 500 miles of Project site from aggregates and cement that have been extracted, harvested, or recovered, as well as manufactured, within 500 miles of Project site.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Prevent work from occurring on the opposite side of walls to which stone is applied, during and for 48 hours following installation.

3.3 INSTALLATION

- A. Install manufactured stone in accordance with the MVMA Installation Guidelines for Adhered Concrete Masonry.
- B. Install metal lath and scratch-coat of mortar in accordance with manufacturer's Installation Guidelines for Adhered Concrete Masonry.
- C. Install manufactured stone as indicated on Drawings.
 - 1. Install units in accordance with manufacturer's Installation Guidelines for Adhered Concrete Masonry.
 - 2. Coordinate installation of manufactured stone with installation of flashing specified in other Sections.
- D. Before tooling the mortar grout, allow mortar to become "thumb-print hard."
- E. Brush joints within 2 hours.

3.4 CLEANING

A. Clean manufactured stone in accordance with manufacturer's recommendations.

3.5 PROTECTION

- A. Protect finished work from rain during and for 48 hours following installation.
- B. Protect finished work from damage during remainder of construction period.

Manufactured Masonry Spec Data

1. Product Name: ProVia's manufactured stone

2. Manufacturer: ProVia, LLC

1550 County Road 140, Sugarcreek, OH 44681 800.669.4711 877-786-4971 fax • provia.com

3. Product Description

Basic Use: ProVia Stone® is a lightweight concrete product, designed for cosmetic use on interior or exterior walls in both residential and commercial applications. The product is intended for non-structural use, and because of its light weight, requires no additional footings. ProVia's stone is easy to install and can be applied to almost any load-bearing wall, wood frame, steel, or masonry.

Composition and Materials: A blend of portland cement, lightweight aggregates and iron oxide pigments make up ProVia's stone products. ProVia produces its own stone using hand-crafted molds. These molds, in remarkable detail, capture the look, feel and texture of natural stone and are used to cast ProVia's stone products.

Types, Sizes and Shapes: Shown below

Туре	Width Varies	Height Varies	Thickness
Ledgestone	6"- 21 ¹ /2"	1 ¹ / ₄ " - 6 ¹ / ₂ "	1" - 2 ¹ /4"
Dry Stack	5"- 21 ¹ /2"	1" - 5 ¹ ⁄2"	1" - 2"
Limestone	5 ¹ /2" - 21 ¹ /2"	2"- 12 ¹ ⁄2"	1" - 1 ³ /4"
Field Stone	3" - 16 ¹ /4"	3" - 16 ¹ /4"	1" - 1 ¹ /2"
River Rock	3" - 16 ¹ ⁄2"	3" - 16 ¹ /2"	2"
Natural Cut [™]	6"- 21 ¹ /2"	1 ¹ / ₄ " - 6 ¹ / ₂ "	13/4"
Terra Cut [™]	3" - 22"	2"-8"	³ /4" - 2"
PrecisionFit™	9", 13 ¹ / ₈ ", 22 ³ / ₈ "	3 ¹⁵ ⁄16"	1" - 2 ¹ /4"
Chisel Cut [™]	4"- 20 ¹ /2"	1 ¹ ⁄2" - 6"	1" - 2 ¹ /8"

Stone Accessories	Measurement and Thickness
LimestoneHearthstone	19 ¹ /2" x 19 ¹ /2" x 1 ³ /4"
Half Hearthstone	20" x 12" x 1 ³ / ₄ "
Limestone Water Sills	23 ⁵ /8" x 3"x 3" (1" wash)
Limestone Cap Stone (peaked)	(Large) - 19 ³ / ₄ "L x 15 ¹ / ₈ "W x 2 ¹ / ₄ "D (⁷ / ₈ " wash) (Small) - 19 ³ / ₄ "L x 11 ¹ / ₄ "W x 2 ¹ / ₄ "D (1 ⁵ / ₈ " wash)
Flat Wall Cap	(Small) 24" x 12" x 2 ¹ / ₄ " (Medium) 24" x 14" x 2 ¹ / ₄ ", (Large) 24" x 16" x 2 ¹ / ₄ "
Column Cap	14" x 14"(Small), 22" x 22"(Medium), 31" x 31"(Large), 2 ⁷ / ₈ "D
Keystone	(Small) 8 ⁷ / ₈ "W x 6"W x 8"H x 1 ³ / ₄ "D (Large) 11 ¹ / ₂ "W x 7"W x 11"H x 1 ³ / ₄ "D
Flat Window Trim	22 ¹ /2"L x 6 ¹ /2"W x 1 ¹ /2"D
Shutter Block	13 ¹ / ₂ "x 2" x 2 ¹ / ₂ "
6x8 Trim Stone	6" x 8" x 1 ³ / ₄ "
Hydrant Stone	6 ⁵ / ₆ " x 7 ¹ / ₂ " x 1 ³ / ₄ " (1" hole)
Receptacle Stone	6 ⁵ /8" x 7 ¹ /2" x 1 ³ /4" (2 ³ / ₈ " x 4 ¹ / ₄ " opening)
Light Base	7 ¹ / ₂ " x 10 ⁵ / ₈ " x 1 ³ / ₄ " (4 ¹ / ₂ " diameter hole)
Limestone Row Locks	5½" x 7½" x 1¾ (Large) 4" x 5"x 1¾ (Small)
Mantel	10" x 48" x 2 ¹ /2" (Small) 10" x 60" x 2 ¹ /2" (Large)
Mantel Bracket	10 ¹ / ₂ " x 6 ¹ / ₂ " x 2 ¹ / ₂ "

Manufactured Masonry Spec Data (cont.)

Corners	Available Color	Measurement	
90 degree	All profiles	See Technical Data for sizes	
135 degree	Limestone Only	See Technical Data for sizes	

Styles and Textures:

LedgestoneNatural Cut™Dry StackTerra Cut™LimestonePrecisionFit™Field StoneChisel Cut™:River RockStone Accessories

See manufacturer's brochure for current color selections or view their product gallery on provia.com.

Colors: See manufacturer's brochure for current color selections or view their product gallery on provia.com. Since permanent iron oxide pigments are used in ProVia's stone products, colorfastness is assured. Mortar color greatly affects and/or enhances the appearance of the finished installation. Regular mortars can be tinted to complement ProVia stone products.

Limitations: Stone products do not add to the load bearing capacity of a wall and should not be used in areas that may come in contact with harsh chemicals such as chlorine or deicing materials. (Hearth stones) are not recommended for foot traffic. Consult a construction engineer prior to usage.

Approvals: IAPMO Research and Testing ER-462 verifies that ProVia's stone products are code compliant.

Technical Data

Applicable Standards:

- ASTM C39 Standard Test method for compressive strength
- ASTM C91 Standard Specification for masonry cement
- ASTM C150 Standard Specification for portland cement
- ASTM C190 Standard Test method for tensile strength of hydraulic cement mortar
- ASTM C192 Standard Practice for making and curing concrete test specimens in a lab
- ASTM C270 Standard Specification for mortar for unit masonry
- ASTM C348 Standard Test method for flexural strength of hydraulic cement mortar
- ASTM C482 Standard Test method for bond strength of ceramic tile to portland cement base
- ASTM C518 Standard Test method for steady-state thermal transmission properties
- ASTM C567 Standard Test method for unit weight of structural lightweight concrete
- ASTM C666/C666M Standard Test method for resistance of concrete to rapid freezing and thawing
- ASTM D226 Standard Spec for asphalt-saturated organic felt for roofing/waterproofing

Safety Data Sheet

1. Identification

GHS Product Identifier

Concrete Stone Veneer Products

Other means of identification

Concrete Stone Veneers for the building industry

Supplier's details

ProVia Stone LLC. 1550 County Rd 140 Sugarcreek, Ohio 44681

Emergency phone number

(330) 852-4711

2. Hazard(s) identification

GHS label elements

SIGNAL WORD: Warning





Concrete products as shipped do not present an inhalation, ingestion or contact hazard. However, operations such as sawing and grinding may result in the following effects.

EYE: May cause irritation to the eyes from a result from exposure to dust generated by dry sawing or grinding operations.

SKIN: Concrete dust or chips may cause allergic reactions in hypersensitive individuals; may cause cuts and skin abrasions.

INHALATION: Dust exposures in excess of PEL or TLV limits can cause or aggravate lung conditions. Dry cutting or grinding or stone veneers release mineral dust that can cause irritation to respiratory functions. Repeated long term exposures to crystalline quartz silica can cause silicosis.

INGESTION: No known acute effects.

3. Composition/information on ingredients

Hazardous Ingredients	%	CAS Number	OSHA PEL	ACGIH TLV
Portland Cement	50-95	65997-15-1	15mg/m³1	0mg/m³
Crystalline Quartz Silica	0-5	14808-60-7	0.05 mg/M ³	0.025mg/m ³
Iron Oxide III	0-15	1309-37-1	10mg/m³5	mg/m³
Chromium Oxide III	0-15	1308-38-9	0.5mg/m³	0.5mg/m³

4. First-Aid Measures

Inhalation: Remove from exposure to airborne particulates. Consult a physician if breathing does not return to permal

Skin: Wash with soap and water. If an allergic reaction causes a rash that does not heal within a few days consult a physician.

Eye: Flush with running water. Obtain medical assistance if irritation continues.

Safety Data Sheet (cont.)

Medical Conditions Aggravated by Exposure: Excessive dust exposure may aggravate any existing respiratory disorders or diseases. Possible complications or allergies resulting in irritation to skin, eyes, and respiratory track may occur from excessive exposures to dust. Dry sawing or grinding of concrete veneers products may result in the release of respirable crystalline quartz. Prolonged exposure to respirable crystalline quartz may cause delayed (Chronic) lung injury (Silicosis). Acute or rapidly developing silicosis may occur in a short period of time in heavy exposure. Silicosis is a form of disabling pulmonary fibrosis, which can be progressive and may lead to death.

5. Fire Fighting Measures

Concrete stone veneers as shipped do not pose a fire or explosion hazard

6. Accidental Release Measures

Concrete Stone Veneers as shipped do not present a human or environmental hazard that requires clean-up measures

7. Handling and Storage

Provide adequate ventilation to maintain exposures below the OSHA PEL and ACGIH TLV for quartz and other substances.

8. Exposure Controls / Personal Protection

Respiratory Protection: For airborne concentration exceeding the OSHA PEL or ACGIH TLV use a NIOSH /and or MSHA approved respirator when dry sawing or grinding.

Eye and Face: Face shields, safety glasses, or googles should be used when sawing or grinding stone veneers.

Skin: Use gloves and or protective clothing if abrasions or allergic reactions are experienced

Other: The use of safety toed shoes is recommended when handling stone veneers.

Other Controls: Use of wet sawing methods is recommended anytime that stone veneers must be cut

9. Phyisical and Chemical Properties

Boiling Point: NA Melting Point: NA Vapor Specific Gravity: NA Soluble

Vapor Pressure: NA Density: NA in water: Negligible

Appearance and Oder: Granular solid, essentially odorless. Concrete veneers come in a wide range of colors

10. Stability and Reactivity

Concrete stone veneers as shipped are not reactive

11. Toxicological Information

Component Analysis- LD50/LC50

Crystalline Silica- Oral LD50 Rat 500 mg/kg **Iron Oxide-** Oral LD50 Rat >10,000 mg/kg

Chromium Oxide III- Not available

Safety Data Sheet (cont.)

Carcinogenicity-IARC CRYSTALLINE SILICA: The International Agency for Research on Cancer (IARC) concluded that there was "sufficient evidence in humans for the carcinogenicity of crystalline silica in the forms of quartz or cristobalite from occupational sources" and that there is "sufficient evidence in experimental animals for the carcinogenicity of quartz and cristobalite." The overall IARC evaluation was that "crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1)." The IARC evaluation noted that all "carcinogenicity was not detected in all industrial circumstances studies. 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 noted that increased rates of lung cancer were reported among some workers in ore-mines, quarries, foundries, ceramics, granite and stone cutting industries. The workers in some of these occupational studies were exposed to other potential respiratory carcinogens such as arsenic, radon, diesel exhaust, polycyclic aromatic hydrocarbons or cadmium. The IARC reviewed animal studies and concluded that there is sufficient evidence in experimental animals for the carcinogenicity of quartz.

Silica-crystalline quartz has resulted in liver, blood, and lung tumors in rats by inhalation, intraperitoneal and intravenous injection, intratrachael, and intrapleural administration.

Carcinogenicity - ACGIH

Portland Cement- A4 Not classifiable as a human carcinogen

Crystalline Silica- A2 Suspected human carcinogen **Iron Oxide-** A4 Not classifiable as a human carcinogen **Chromium Oxide** III- A4 Not classifiable as a human carcinogen

12. Ecological Information

No data is currently available.

13. Disposal Considerations

Concrete stone veneers in its solid form is typically considered a non-hazardous waste for disposal, but local regulation may vary, therefore all waste must be disposed/recycled/reclaimed in accordance with federal, state, and local environmental control regulations. Water containing stone veneer solids, such as from wet sawing operations, should be disposed of in accordance with federal, state, and local environmental regulations.

14. Transport Information

DOT Shipping Name: Not regulated by dot **Canada TDG:** Not regulated by TDG

DOT Class: Hazard Class:

Indentification Number: UN Number:

15. Regulatory Information

CERCLA/Superfund Sections 117 and 302

No components listed

EPCRA Section 313

No components listed

SARA Title III Sections 311 and 312

Portland Cement- Hazardous Chemical and delayed reaction

Iron Oxide- Hazardous Chemical with acute symptoms

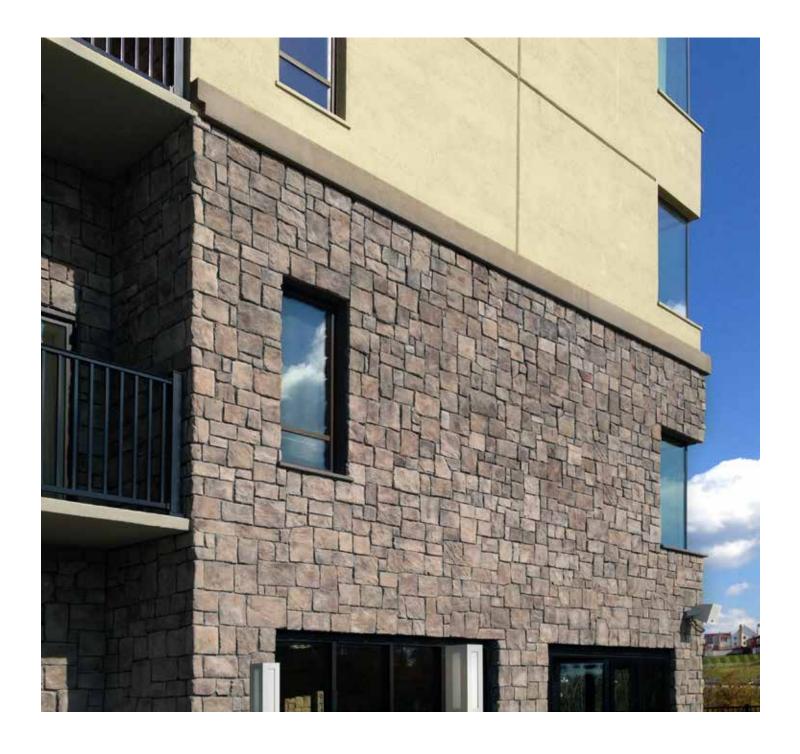
Chromium Oxide III- Hazardous Chemical

Safety Data Sheet (cont.)

16. Other Information

ProVia recommends only wet sawing concreate stone veneers.

This SDS was prepared with information believed accurate at the time of preparation and was prepared and provided in good faith. However, ProVia Stone, LLC assumes no responsibility as to the accuracy or suitability of such information and no warranty expressed or implied is made.



Technical Data

LEDGESTONE

	Product Dimensions	Coverage	Packaging	Weight
Flats	Width: 6" - 21½"	10 sq. ft. based on ½" minimum grout joints	Вох	90 lbs
	Height: 1¼" - 6½" Depth: 1"- 2¼"		Pallet (24 boxes)	2,210 lbs*
90° Corners	Long Tails: 6½" - 10"	6 linear ft. based on ½" minimum grout joints	Вох	70 lbs
	Medium Tails: 5½" - 7" Short Tails: 1½" - 2¼"		Pallet (24 boxes)	1,730 lbs*

*50 lbs added for pallet weight



DRY STACK

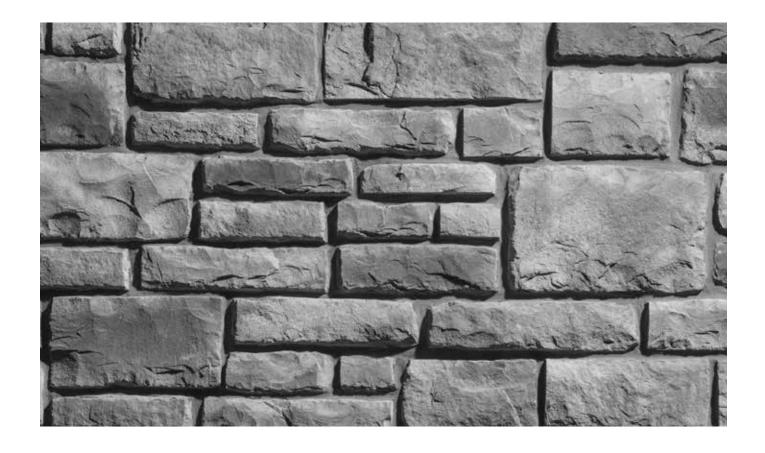
	Product Dimensions	Coverage	Packaging	Weight
	Width: 5" - 21½"	12½ sq. ft. based on tight fitted joints	Вох	105 lbs
Flats	Height: 1" - 5½" Depth: 1"- 2"		Pallet (20 boxes)	2,150 lbs*
90° Corners	Long Tails: 9" - 10½" Medium Tails: 5½" - 6½"	6 linear ft. based on tight fitted joints	Вох	70 lbs
	Short Tails: 1½" - 2¼"		Pallet (24 boxes)	1,730 lbs*

*50 lbs added for pallet weight



LIMESTONE

	Product Dimensions	Coverage	Packaging	Weight
Flats	Width: 5½" - 21½"	10 sq. ft. based on ½" minimum grout joints	Вох	90 lbs
	Height: 2" - 12½" Depth: 2"- 1¾"		Pallet (24 boxes)	2,210 lbs*
135° Corners	Long Tails: 7" - 10½"	6 linear ft. based on ½" minimum grout joints	Вох	65 lbs
	Short Tails: 2½" - 3½"		Pallet (24 boxes)	1,610 lbs*
90° Corners	Long Tails: 9" - 10"	6 linear ft. based on ½" minimum grout joints	Вох	65 lbs
	Medium Tails: 5½" - 6½" Short Tails: 2"		Pallet (24 boxes)	1,610 lbs*



FIELDSTONE

	Product Dimensions	Coverage	Packaging	Weight
Flats	Random Shapes: 3" - 16¼"	10 sq. ft. based on ½" minimum grout joints	Вох	90 lbs
	Depth: 1"- 1½"		Pallet (24 boxes)	2,210 lbs*
90° Corners	Long Tails: 6" - 10"	6 linear ft. based on ½" minimum grout joints	Вох	60 lbs
	Short Tails: 1" - 2"		Pallet (24 boxes)	1,490 lbs*



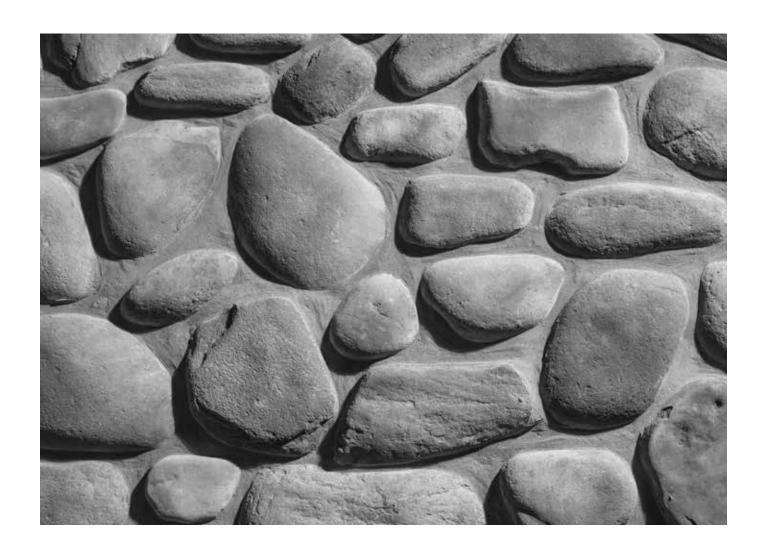
NATURAL CUT™

	Product Dimensions	Coverage	Packaging	Weight
Flats	Width: 6" - 21½"	10 sq. ft. based on ½" minimum grout joints	Box	125 lbs
	Height: 1¼" - 6½" Depth: 1¾"		Pallet (20 boxes)	2,550 lbs*
90° Corners	Long Tails: 4" - 9"	6 linear ft. based on	Вох	70 lbs
	Short Tails: 1¾" - 2½"	½" minimum grout joints	Pallet (24 boxes)	1,730 lbs*



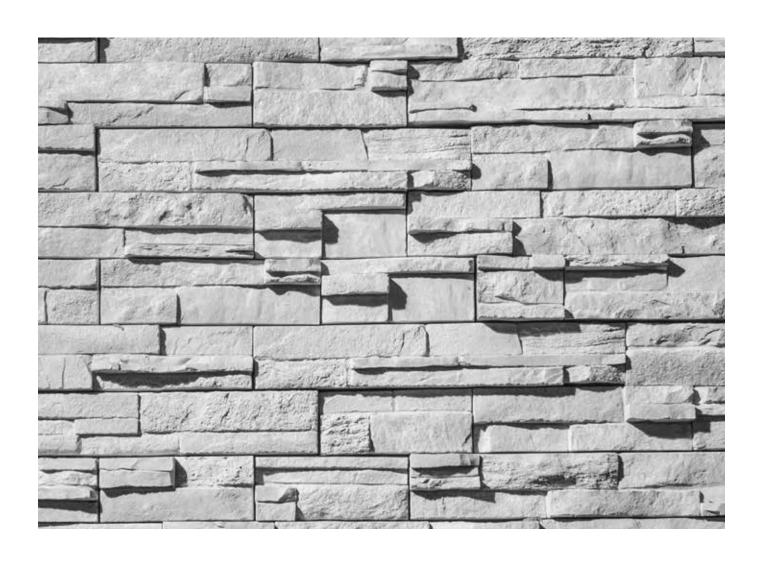
RIVER ROCK

	Product Dimensions	Coverage	Packaging	Weight
Flats	Random Shapes: 3" - 16½"	10 sq. ft. based on	Вох	110 lbs
riats	Depth: 2"	½" minimum grout joints	Pallet (24 boxes)	2,690 lbs*
00% 6	Long Tails: 5½" - 9"	6 linear ft. based on	Вох	60 lbs
90° Corners	Short Tails: ¾" - 3"	½" minimum grout joints	Pallet (24 boxes)	1,490 lbs*



$\textbf{PRECISIONFIT}^{\tiny{\text{TM}}}$

	Product Dimensions	Coverage	Packaging	Weight
	Width: 9", 131/4", 223/4"	5 sq. ft. based on	Вох	50 lbs
Flats	Height: 315/16" Depth: 1"- 21/4"	tight fitted joints	Pallet (45 boxes)	2,400 lbs*
200.5	Long Tails: 8½"	6 linear ft. based on	Вох	70 lbs
90° Corners	Corners Medium Tails: 5½" tight fitted joints Short Tails: 2"	Pallet (24 boxes)	1,730 lbs*	



TERRA CUT™

	Product Dimensions	Coverage	Packaging	Weight
	Width: 3" - 22" 10 sq. ft. based		Вох	95 lbs
Flats	Height: 2" - 8" Depth: ¾"- 2"	½" minimum grout joints	Pallet (24 boxes)	2,330 lbs*
	Long Tails: 8½" - 9½"	6 linear ft. based on	Вох	60 lbs
90° Corners	Medium Tails: 5" - 6½" Short Tails: 2" - 2½" ½" minimum grout joints	Pallet (24 boxes)	1,490 lbs*	



CHISEL CUT™

	Product Dimensions	Coverage	Packaging	Weight
		10 sq. ft. based on	Box	103 lbs
Flats	Height: 1½" - 4" Depth: 1" - 2½"	½" minimum grout joints	Pallet (20 boxes)	2,110 lbs*
200.0	Long Tails: 9¼" - 10¼"	6 linear ft. based on	Вох	75 lbs
90° Corners	Corners Medium Tails: 6¼" - 8¾"	Pallet (24 boxes)	1,850 lbs*	

*50 lbs added for pallet weight



SELF FURRING METAL LATH

Description - This is a small mesh, galvanized metal plaster base (approx. 11,000 meshes per sq yd) used as an exterior stucco base, column fireproofing and for re-plastering over old surfaces. Metal lath is used as a backer for the scratch coat process

	Package Quantity	Minimum Purchase	Weight (Approx)	Coverage	Product Dimensions
Self Furring	10 pieces per bundle 250 pieces per pallet	1 bundle	4½ lbs per piece 45 lbs per bundle 1175 lbs per pallet*	16 sq ft with lap 180 ft bundle	27" x 97" (18 sq ft)

^{*50} lbs added for pallet weight

LIMESTONE HEARTHSTONE

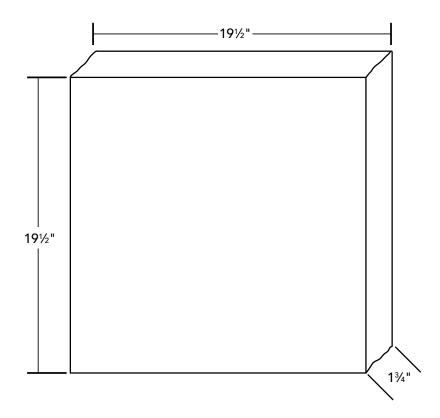
Description - slate finish on top with 4 split faced edges

Note - Hearthstones are not intended for foot traffic

Package Quantity	Minimum Purchase	Weight (Approx)	Product Dimensions	Color Options
36 per crate	1 piece	40 lbs each 1615 lbs per pallet*	19½" W 19½" H 1¾" D	Buff Gray Brown Natural Ivory

*50 lbs added for pallet weight





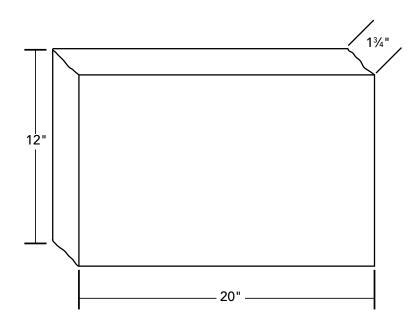
HALF HEARTHSTONE

Description - slate finish on top with 4 split faced edges

Note - Hearthstones are not intended for foot traffic

Package Quantity	Minimum Purchase	Weight (Approx)	Product Dimensions	Color Options
54 per crate	1 piece	27 lbs each 1508 lbs per pallet*	20" W 12" H 1¾" D	Buff Gray Brown Natural Ivory





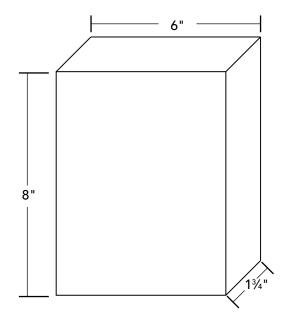
6X8 TRIM STONE

Description - rectangular shape with split face surface

Usage - commonly used to border doors, windows, sills, header areas, and horizontal course banding

Package Quantity	Minimum Purchase	Weight (Approx)	Coverage	Product Dimensions	Color Options
18 pieces	1 box	119 lbs per box 2856 lbs per pallet*	9 linear ft per box	6" W 8" H 1¾" D	Buff Gray Brown Natural Ivory





LIMESTONE ROW LOCK

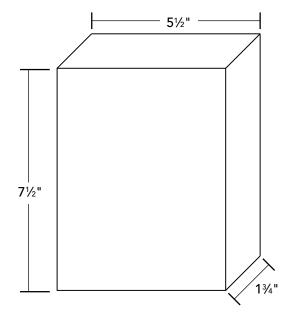
Description - rectangular shape with split face surface

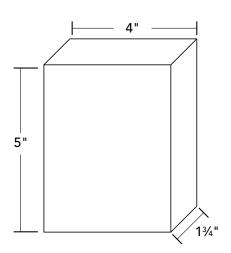
Usage - commonly used to border doors, windows, sills, header areas, and horizontal course banding

	Package Quantity	Minimum Purchase	Weight (Approx)	Coverage	Product Dimensions	Color Options
Large	27 pieces	1 box	100 lbs per box 2450 lbs per pallet*	13.5 linear ft. based on %" grout joint	5½" W 7½" H 1¾" D	Buff Gray Brown Natural Ivory
Small	48 pieces	1 box	80 lbs per box 2050 lbs per pallet*	18 linear ft. based on ¾" grout joint	4" W 5" H 1¾" D	Buff Gray Brown Natural Ivory

*50 lbs added for pallet weight







Measurement Tolerance: 1/4"

FLAT WINDOW TRIM

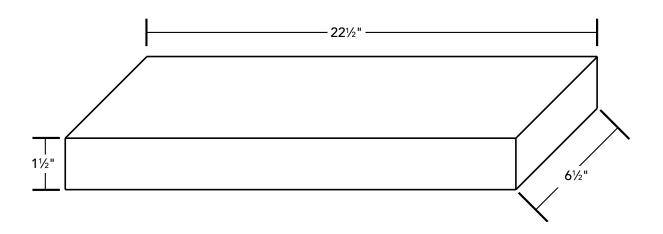
Description - rectangular shape with split face surface

Usage - commonly used to border doors, windows, sills, header areas, and horizontal course banding

Package Quantity	Minimum Purchase	Weight (Approx)	Product Dimensions	Color Options
6 pieces	1 box	104 lbs per box 2546 lbs per pallet*	22½" W 6½" H 1½" D	Buff Gray Brown Natural Ivory

*50 lbs added for pallet weight





HYDRANT STONE

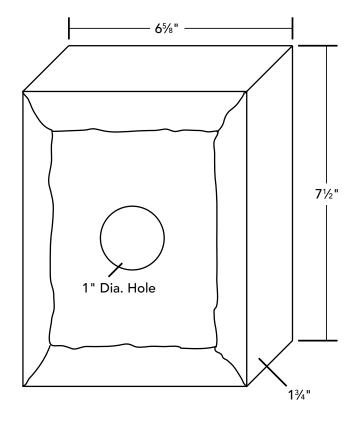
Description - smooth on face with chiseled surface edges, accommodates an exterior frost-free water hydrant

Usage - trim stone to be used as backer for exterior water hydrant

Package Quantity	Minimum Purchase	Weight (Approx)	Product Dimensions	Color Options
18 per box	1 piece	4.5 lbs each 86 lbs per box 2114 lbs per pallet*	6¾" W 7½" H 1¾" D 1" hole dia.	Buff Gray Brown Natural Ivory

*50 lbs added for pallet weight





LIGHT BASE

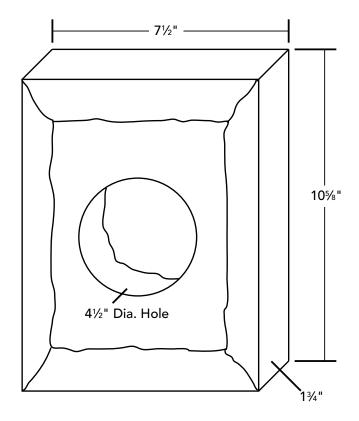
Description - smooth on face with chiseled surface edges, accommodates a 4" octagon metal box

Usage - used as a base for exterior light fixtures

Package Quantity	Minimum Purchase	Weight (Approx)	Product Dimensions	Color Options
12 per box	1 piece	7 lbs each 89 lbs per box 2186 lbs per pallet*	7½" W 10%" H 1¾" D 4½" hole dia.	Buff Gray Brown Natural Ivory

*50 lbs added for pallet weight





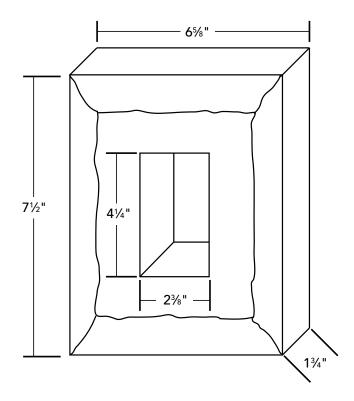
RECEPTACLE STONE

Description - smooth on face with chiseled surface edges, accommodates a 2%" x 4%" metal utility box

Package Quantity	Minimum Purchase	Weight (Approx)	Product Dimensions	Color Options
18 per box	1 piece	4 lbs each 77 lbs per box 1498 lbs per pallet*	6%" W 7½" H 1¾" D 2%" x 4¼" hole	Buff Gray Brown Natural Ivory

*50 lbs added for pallet weight





LIMESTONE CAP STONE (PEAKED)

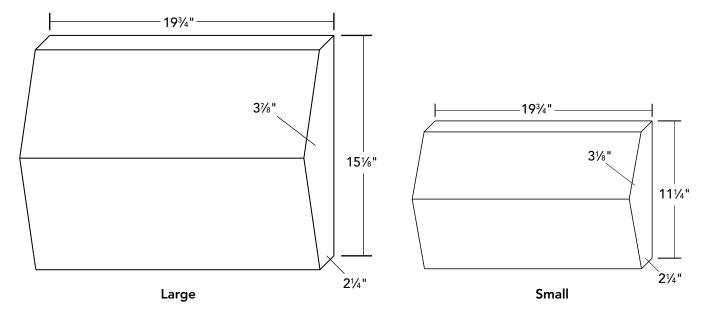
Description - slate faced on top and long edged surfaces

 ${f Usage}$ - commonly used to cap 8" and 12" wide entrance walls, signage walls, and dividing walls with stone attached

	Package Quantity	Minimum Purchase	Weight (Approx)	Product Dimensions	Color Options
Large	20 per crate	1 piece	1215 lbs per crate	19¾" W 15½" H 2¼" D low 3½" D high 1½" wash	Buff Gray
Small	20 per crate	1 piece	785 lbs per crate	19¾" W 11¼" H 2¼" D low 3½" D high %" wash	Brown Natural Ivory

*50 lbs added for pallet weight





Measurement Tolerance: 1/4"

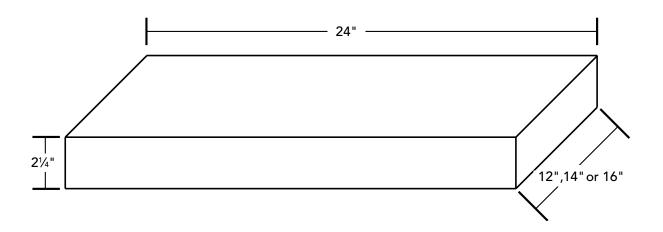
FLAT WALL CAP

Description - slate faced on top and long edged surfaces

 ${f Usage}$ - commonly used to cap 8" and 12" wide entrance walls, signage walls, and dividing walls with stone attached

	Package Quantity	Minimum Purchase	Weight (Approx)	Product Dimensions	Color Options
Small	40 per pallet	1 piece	44 lbs each 1760 lbs per pallet*	24" W 12" H 2¼" D	Buff
Medium	30 per pallet	1 piece	47 lbs each 1880 lbs per pallet*	24" W 14" H 2¼" D	Gray Brown Natural
Large	30 per pallet	1 piece	53 lbs each 1590 lbs per pallet*	24" W 16" H 2¼" D	lvory





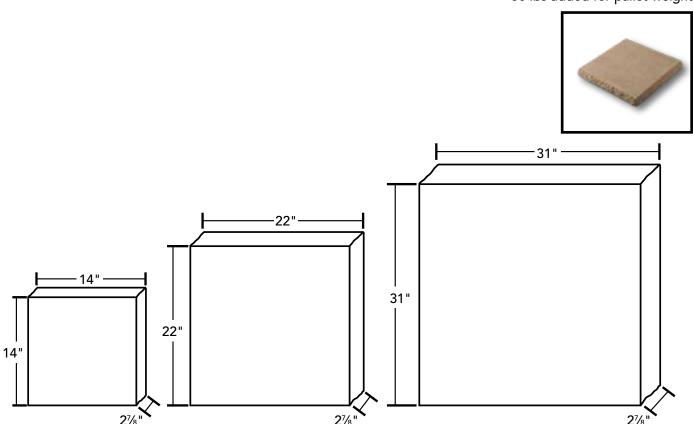
COLUMN CAP

Description - slate faced on top and long edged surfaces

Usage - commonly used to cap 8" and 12" wide entrance walls, signage walls, and dividing walls with stone attached

Package Quantity	Minimum Purchase	Weight (Approx)	Product Dimensions	Color Options
28 per pallet	1 piece	35 lbs each	14" W 14"H 2%" D	Buff Gray Brown Natural Ivory
16 per pallet	1 piece	100 lbs each	22" W 22"H 2%" D	Buff Gray Brown Natural Ivory
4 per pallet	1 piece	175 lbs each	31" W 31"H 2%" D	Buff Gray Brown Natural Ivory

*50 lbs added for pallet weight



Measurement Tolerance: 1/4"

SHUTTER BLOCK

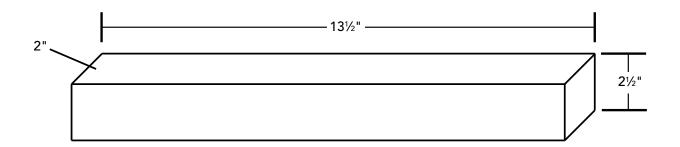
Description - rectangular shape with split face surface

Usage - used as a surface to fasten shutters to directly

Package Quantity	Minimum Purchase	Weight (Approx)	Product Dimensions	Color Options
16 pieces	1 piece	95 lbs per box 2330 lbs per pallet*	13½" W 2" H 2½" D	Buff Gray

*50 lbs added for pallet weight





LIMESTONE WATER SILL

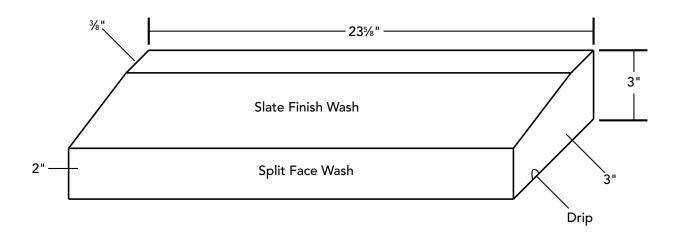
Description - split faced on front surface/slate faced on wash surface

Usage - commonly used under windowsill area and to cap off wainscot

Package Quantity	Minimum Purchase	Weight (Approx)	Product Dimensions	Color Options
5 per box	1 box	12 lbs each 63 lbs per box 2205 lbs per pallet*	23%" W 3" H 3" D 1" wash	Buff Gray Brown Natural Ivory

*50 lbs added for pallet weight





KEYSTONE

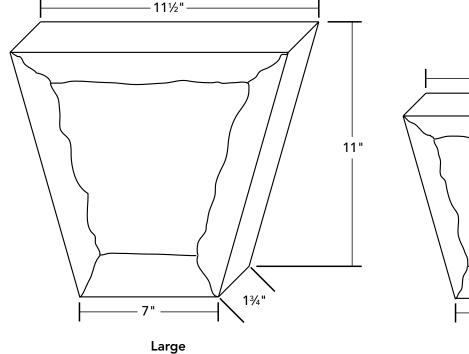
Description - smooth interior face with chiseled edge perimeter

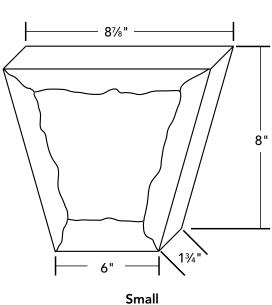
Usage - commonly used over the center of doors, windows, arches and fireplace openings

	Package Quantity	Minimum Purchase	Weight (Approx)	Product Dimensions	Color Options
Large	6 per box	1 piece	11 lbs each 71 lbs per box 1754 lbs per pallet*	11½" W top 7" W bottom 11" H 1¾" D	Buff Gray
Small	18 per box	1 piece	5.5 lbs each 104 lbs per box 2546 lbs per pallet*	8½" W top 6" W bottom 8" H 1¾" D	Brown Natural Ivory

*50 lbs added for pallet weight







Measurement Tolerance: 1/4"

MANTEL

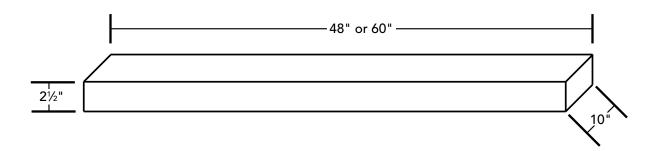
Description - rectangular shape

Usage - commonly used as shelving

Package Quantity	Minimum Purchase	Weight (Approx)	Product Dimensions	Color Options
10 per pallet	1 piece	85 lbs each*	48" W 10" H 2½" D	Buff Gray Brown Natural Ivory
5 per pallet	1 piece	100 lbs each*	60" W 10" H 2½" D	Buff Gray Brown Natural Ivory

*25 lbs added for pallet weight





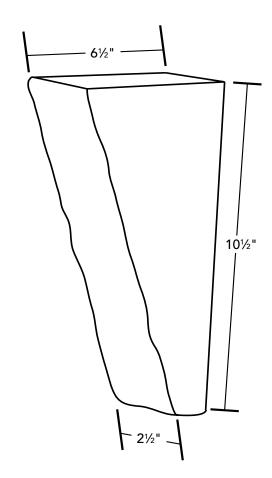
MANTEL BRACKET

Description - angled shape

Usage - commonly used as mantel support

Package Quantity	Minimum Purchase	Weight (Approx)	Product Dimensions	Color Options
2 pieces	1 piece	10 lbs each 20 lbs per box	2½" W 10½" H 6½" D	Buff Gray Brown Natural Ivory









"To serve, by caring for details in ways others won't." It's not just our mission, but a way of letting our light shine every day at ProVia®. We continually strive to put these words into action by providing unmatched quality and service. The P-icon symbolizes each employee's commitment to devoting the utmost care, pride and quality into each building product we manufacture...it's The Professional Way.



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