

10-Part Spec

1. Product Name

Boulder Creek® Stone, Thin Brick and Accessories

2. Manufacturer

Boulder Creek® Stone
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3. Product Description

BASIC USE

Stone:
Boulder Creek® Stone offers a full line of cost effective manufactured stone in a variety of designs, textures, and colors. Crafted of all natural materials to replicate the appearance and feel of natural stone, this manufactured stone is lightweight, yet durable to withstand harsh weather conditions. It can be installed onto interior and exterior wall surfaces without requiring extra foundational support and is ideal for all systems, fireplaces, entries, retaining walls, and other applications where natural stone may be too heavy or costly.

Thin Brick:
Boulder Creek® Stone manufactures maintenance-free thin brick to complement both exterior and interior applications.



They range from ½" (12.7 mm) to 1" (25.4 mm) and mirror the classic look and feel of traditional full size bricks. Thin Brick is lightweight and requires no special brick ledges or ties for installation. They are cost-effective and can be used where fill brick cannot be installed.

COMPOSITION & MATERIALS
Boulder Creek® Stone products are manufactured simulated stone and brick products, engineered using all natural materials to achieve the strength, texture and weather resistant characteristics of natural stone and full-size bricks.

SIZES

Sizes, shapes and textures vary according to pattern selection. Manufactured stone products have random, varying sizes, shapes and textures with the appearance of natural stone.

TYPES, COLORS

STONE

Boulder Creek® Stone products are produced in flat (field) pieces and 90 degree outside corner pieces.

- **Bavarian Castle** - Antique Buff, Liverpool, Norwich, Nottingham, Westwood, York Gray
- **Bluff Stone** - Easton, Outback, Seneca, Sunset
- **Cliffstone** - Apache, Bradford, Montour, Sheridan
- **Country Ledge** - Brown, Fossil Beige, Glacier Buff, Loveland, Vancouver, West Chester
- **Eastern Fieldstone** - Burnt Hollow, Englewood, Hampton, Stonehill, Tishbury, Walden
- **Fast Stak™** - Ancona, Black Onyx, Cashmere, Cheyenne Ridge, Gunflint Gray, Jaffa Beige, Mirage Gray, Nema, Russet Brown, Sable, Velarde

10-Part Spec

- Italian Fieldstone - Bergamo, Tivoli, Toscana, Venice
- Long Island Stak™ - Alden, Aurora, Hempstead, Manhattan, Niagara, Woodridge
- Montana Ledge - Chesapeake, Cameron, Jasper, Leather Brown, Pendleton, Rocky Mountain, Ronan, Suede Gray
- Mountain Blend - Athena, Barton, Comforts of Home
- Nuggets - Superior
- Ohio Rubble - Hudson Bay, Monroe, Oklahoma Crème, Prairie Mountain, St. Claire, Smokey Hollow, Stonehenge
- Pebblestone - River Bed
- Prairie Buff - Chandler, Laner, Mesquite, Mojave, Navajo, Newbury, Prescott, Red Mountain, Winslow, Verena, Yuma
- River Rock - Comfort Blend, Desert Rust, Northern Blend, Minnesota Blend, Mission, Natures Blend
- Sangria - Castano, Pueblo, Saddle, Tolono
- Southeastern Ledge Stone - Barrington, Butternut, Cajun, Crimson Mountain, Quincy, Tenor, Wilmington
- Splitface - Buckeye Blend, Great Lakes, Mansfield, Michigan, Westin Willows, Willows
- Venetian Cobble - Biella, Florence, Genoa, Milan, Molise, Napoli, Salerno
- Weathered Edge - Bristol, Fon-Du-Lac, Kodiak, Portage, Sun Prairie, Trenton

- Western Ledge Stak™ - Appaloosa, Belgian, Burnt Hollow, Lasino, Moroccan, Mustang

THIN BRICK

- Clinker Brick - Red
- Estate - Shelby
- New Brick - Chicago Blend, Dover, Red Colonial, Sienna Blend
- Stonebrick - Beringer, Ferrara, Linden
- Travertine - Crane, Elmwood, Mesa, Pima
- Used Brick - Buff, Chicago Used, Essex, Lexington, Old World, Talbot

ACCESSORIES

Boulder Creek® Stone has a full line of accessories to add architectural detail and accents to manufactured stone and thin brick projects.

- Standard Hearthstones
- Large Hearthstones 16", 20"
- Chisel Face Sills
- Large Flat Sill
- Heavy Duty Sill
- Castle Accents 6x6, 6x10
- Base Piece
- Keystone - Chisel Face – Small, Large
- Octagon Light Trim
- Rectangle Light Trim
- Outlet Trim
- Keystone - Sand Finish – Small, Large
- Post Cap Flat - 16", 18", 20", 24", 32"

- Post Cap - Peaked – Small, Large
- Wall Cap - Peaked - 12x20, 12x24, 16x20, 16x24,
- Wall Cap - Flat - 12x20, 12x24, 16x20, 16x24

BENEFITS

- Manufactured Stone and Thin Brick are durable, lightweight and attractive alternatives to natural stone and full-size brick.
- Products mirror the look and feel of natural stone and brick without inherent cost
- Consistent sizes and edges simplify installation
- Can be installed on interior or exterior walls without the need for extra foundational or structural support
- Large selection of styles, colors and accessories make it easy to create or match a particular design or ambience

LIMITATIONS

Boulder Creek® Stone products should be installed at least 4" (101 mm) above grade or 2" (50 mm) above hard surface.

It is important to follow all manufacturer installation instructions and local codes to ensure and maintain proper weather resistance and durability.

Installations where salt and/or chemical contact may occur could lead to the need for sealer or other protection. Acid must not be used on Boulder Creek® products in any circumstance.



10-Part Spec

4. Technical Data

APPLICABLE STANDARDS

- AC38 — ICC-ES Acceptance Criteria for Water Resistive Barriers
- AC51 — ICC-ES Acceptance Criteria for Pre-Cast Stone Veneer
- AC191 — ICC-ES Acceptance Criteria for Metal Plaster Bases (Lath)
- AC275 — ICC-ES Acceptance Criteria for Glass Fiber Lath used in Cementitious Exterior Wall Coating or Exterior Cement Plaster (Stucco)
- ANSI Accredited Evaluation Service
- International Code Council — Evaluation Service (ICC-ES)
- International Building Code (IBC)
- International Residential Code (IRC)
- ANSI — American National Standards Institute
- ANSI A118.1 — American National Standards Institute Specifications for Dry-Set Portland Cement Mortar
- ANSI A118.4 — American National Standards Institute Specifications for Modified Dry-Set Cement Mortars
- ANSI A118.15 — American National Standards Institute Specifications for Improved Modified Dry-Set Cement Mortar
- TMS 402 — Building Code

Requirements for Masonry Structures (TMS 402/ACI 530/ASCE 5).

- TMS 602 — Specification for Masonry Structures (TMS 602/ACI 530.1/ASCE 6)
- Foam Sheathing Committee of the American Chemistry Council, Guide to Attaching Exterior Wall Coverings Through Form Sheathing to Wood or Steel Wall Framing
- ICRI — International Concrete Repair Institute
- ASTM International
- ASTM C270 — Standard Specification for Mortar for Unit Masonry
- ASTM C482 — Standard Test Method for Bond Strength of Ceramic Tile to Portland Cement Paste
- ASTM C847 — Standard Specification for Metal Lath
- ASTM C932 — Standard Specification for Surface Applied Bonding Compounds for Exterior Plastering
- ASTM C933 — Standard Specification for Welded Wire Lath
- ASTM C979/C979M — Standard Specification for Pigments for Integrally Colored Concrete
- ASTM C1032 — Standard Specification for Woven Wire Plaster Base

- ASTM C1059/C1059M – Standard Specification for Latex Agents for Bonding Fresh to Hardened Concrete
- ASTM C1063 — Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement Based Plaster
- ASTM C1325 — Standard Specification for Non-Asbestos Fiber-Mat Reinforced Cementitious Backer Units
- ASTM C1384 – Standard Specification for Admixtures for Masonry Mortars
- ASTM C1670 – Standard Specification for Adhered Manufactured Stone Masonry Veneer Units
- ASTM C1714/C1714M – Standard Specification for Preblended Dry Mortar Mix for Unit Masonry
- ASTM C1780 – Standard Practice for Installation Methods for Adhered Manufactured Stone Masonry Veneer
- ASTM E2556/E2556M — Standard Specification for Vapor Permeance Flexible Sheet Water-Resistive Barriers Intended for Mechanical Attachment
- ASTM D226/D226M — Standard Specification for Asphalt Saturated Organic Felt Used in Roofing and Water Proofing

PHYSICAL/CHEMICAL PROPERTIES

See Table 1.

TABLE 1 - PHYSICAL AND TECHNICAL PROPERTIES			
Test	Brick Veneer	Stone Veneer	AC51 Requirements
Density, pcf	90.04	90.04	N/A
Freeze/thaw, (loss) %	0.9	0.9	3 max.
Compressive strength, psi	5710	5710	1800
Flexural strength, psi	663	663	N/A
Tensile strength, psi	319.9	319.9	N/A
Shear bond with scratch coat, psi	55.3	55.3	50
Conductivity, Btu x in/(h x ft ² x °F)	1.987	1.987	N/A
Conductance, Btu/(h x ft ² x °F)	1.159	1.159	N/A
Resistivity, °F x ft ² x h/btu/in	0.505	0.505	N/A
Resistance, °F x ft ² x h/btu	0.865	0.865	N/A
Flamespread Index	0	0	N/A
Absorption	17.2%	17.2%	N/A

10-Part Spec

5. Installation

Boulder Creek® Stone may be applied over various substrates including wood framing, metal framing, open stud framing, concrete block, poured concrete and tilt-up wall panels. For complete procedures, consult www.boulder creekstone.com or www.boulder creekarchitect.com.

PREPARATORY WORK

Deliver and store the product protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer. Store the product off-ground on material that will not stain the brick or stone. If long-term storage is required, cover the product with polyethylene or another nonstaining waterproof material.

Installations in extreme weather conditions should reference ACI 530.1, Section 1.8 for materials and jobsite environmental conditions guidelines.

METHOD

Preparing the surface:
Apply water resistive barrier to exterior surfaces from the bottom up and a metal lath to interior and exterior surfaces. Hand the lath horizontally. Overlap the lath 6" (152 mm) on vertical seams and

2" (51 mm) on horizontal seams. Wrap the lath around the corners.

Mixing the Cement:

For the scratch coat, use 1 part Portland cement or Type S to 2.25 parts sand. For mortar, use 1 part Type N cement to 2.25 parts sand. Dry mix the sand and cement in a wheelbarrow or mud box. Continue mixing and add water slowly until the mixture achieves an applesauce-like consistency.

Scratch Coat:

Use masonry trowel to spread an even layer of cement over and into the holes of the wire lath. Scrape off any excess and use a soft bristled brush to lightly roughen the scratch coat. Drying time ranges from 2 – 24 hours.

Applying Stone:

Install corners first, working from the top down or, if working with groutless patterns, work from the bottom up. Apply ½" (12.7 mm) layer of mortar to the back of the stone. Lay it against the wall and work it gently into place. Cut the stone using a power saw with a masonry blade. Be sure to wear safety glasses and a dust mask.

Applying Brick:

Course out the brick using a chalk line. Install every other row, and then fill the adjacent rows. Install corners first, working from the top

down. Apply ½" (12.7 mm) layer of mortar to the back of the brick; lay it against the wall and work it gently into place. Cut the brick using a power saw with masonry blade. Be sure to wear safety glasses and a dust mask.

Applying Grout:

The stone may be grouted on the same day that it is laid. If grouting is to be delayed to the following day, make sure that all joints are left clean of excess mortar and that the surface of the stone is free of any splashed mortar. Use a grout bag for grouting. When grout joints become firm, they should be raked to achieve the desired effect.

BUILDING CODES

Installation must comply with the requirements of all applicable local; and federal code jurisdictions.

6. Availability & Cost

AVAILABILITY

Boulder Creek® Stone products are made in the USA and are available worldwide.

COST

Cost information may be obtained from the manufacturer or any reseller of Boulder Creek® Stone products.

10-Part Spec

7. Warranty

Products manufactured and sold by Boulder Creek® Stone are warranted against defects after completion and final acceptance of work for a period of 50 years. The manufacturer shall furnish, free of charge, new materials and replace materials determined to be defective. This material warranty shall cover only manufacturing defects of the manufactured products and does not extend to or cover damaged resulting from:

- Settlement of the building or other wall movement
- Contact with chemicals, paint or staining
- Discoloration from airborne contaminants, oxidation or fading associated with the normal aging process
- Faulty installation

8. Maintenance

When properly installed Boulder Creek® Products are maintenance free. Should the need arise, it is important to not use acid or acid based products for cleaning.

Installations where salt and/or chemical contact may occur could lead to the need for a sealer or other protection.

9. Technical Services

Detailed information, product literature, test results or questions about usage or installation is available through Boulder Creek® Stone.

10. Filing System

- MANU-SPEC®
- Additional product information is available from the manufacturer upon request.



Bavarian Castle



Bluff Stone



Clinker Brick



Country Ledge



Cliffstone



Estate Brick



Eastern Fieldstone



Fast Stak™



Italian Fieldstone



Long Island Stak™

Boulder CREEK® Stone Products

10-Part Spec



Mountain Blend



Montana Ledge



New Brick



Nuggets



Ohio Rubble



Prairie Bluff



Pebblestone



River Rock



Stonebrick



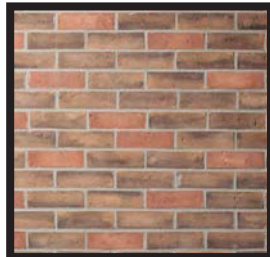
Southeastern
Ledgestone



Splitface



Sangria



Travertine



Used Brick



Venetian Cobble



Weathered Edge



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