Valley Stone Inc. Architectural Cast Stone / Masonry Supplies

Cast Stone Submittals

Letter of Introduction Letter of Certification Color Samples Water Absorption Test Reports Compression Test Results Freeze Thaw Test Results Patching Instructions Cleaning Instructions

500 Shields Road * Huntsville, Alabama 35811 Ph. 256-851-1922 Website: <u>www.valleystone-inc.com</u> * Email: info@valleystone-inc.com



Letter of Introduction

Valley Stone specializes in the manufacturing of high quality custom cast stone products for both the commercial and residential market. We assist architects, designers, contractors & homeowners in any way we can to create their architectural cast stone ideas into a timeless handcrafted work of art. VSI is committed to complete customer satisfaction from the conceptual design to the completed project. VSI will be here to assist you every step of the way to insure you are completely satisfied with our products.

Valley Stone was founded in 2006 with the focus on producing a superior cast stone product at an affordable price without compromising quality. Proudly located in Huntsville, Alabama with easy interstate access we are able to supply your cast stone project on time without delay. We use our own trucks with moffetts for delivery and offloading locally, and common carriers to handle shipping anywhere else in the Continental United States.

VSI has the production capacity & capabilities to handle any size job with our design team, highly skilled craftsmen and pattern makers on staff ready to serve your cast stone needs.

We welcome your business and would be honored to assist you in any way that we can on your next project.

Sincerely,

Chris Sylvester

Chris Sylvester – President / CEO Valley Stone Inc.

> 500 Shields Road * Huntsville, AL 35811 PH: 256-851-1922



Letter of Certification

To Whom It May Concern:

This is to certify that Cast Stone manufactured by Valley Stone Inc. meets or exceeds ASTM C1364. Attached you will find test reports as performed by an independent laboratory.

Please call if you need additional information.

Sincerely,

Chris Sylvester

Chris Sylvester – President / CEO

Valley Stone Inc.





Absorption of Architectural Cast Stone ASTM C1195

Test Age:	nt: Valley Stone, Inc. pple ID: Cast Stone - Cast 7/24/2015		Project Number : Test Date: Report Date:	8/26/2015	
Sample Dry Weigh SSD Weigl Absorption	ht (g)	1 259.9 273.8 5.3%	2 249 263.6 5.9%	3 247.8 261.6 5.6%	-

Average Absorption (%)

5.6%

ASTM C1364 - Physical Requirements:

5.2 *Absorption, Cold Water*—At 28 days after manufacture, not greater than 6 %, when tested in accordance with Method A, Cold Water of Test Method C1195.

Note: The above units meet ASTM C1364 requirements for the test performed.

Brian E. Cooley Technical Responsibility

Signature /

Laboratory Manager Position 8/26/2015 Date



Compressive Strength of Architectural Cast Stone ASTM C1194

Project:Valley Stone, Inc. - Lab TestingClient:Valley Stone, Inc.Sample ID:Cast Stone - Cast 7/24/2015Test Age:31 Days

 Project Number :
 3282-15-028

 Test Date:
 8/24/2015

 Report Date:
 8/25/2015

Sample	4	5	6
Avg. Width (in)	1.95	1.96	1.95
Avg. Area (in^2)	3.80	3.84	3.80
Maximum Load (lb)	32346	33404	32652
Strength (psi)	8510	8700	8590

Average Compressive Strength (psi)

8600

ASTM C1364 - Physical Requirements:

5.1 *Compressive Strength*—At 28 days after manufacture, not less than 6500 psi (45 MPa), when tested in accordance with Test Method C1194.

Note: The above units meet ASTM C1364 requirements for the test performed.

Brian E. Cooley Technical Responsibility

Signature

Laboratory Manager Position 8/25/2015 Date



November 29, 2016

Valley Stone, Inc. 500 Shields Road Huntsville, Alabama 35811

Attention: Mr. Chris Sylvester

Reference: Report of Laboratory Testing Valley Stone Lab Testing Huntsville, Alabama S&ME Project No. 3282-15-028

Dear Mr. Sylvester:

S&ME, Inc. is pleased to present the results of freezing and thawing resistance of the three samples delivered to our Huntsville, Alabama laboratory on September 24, 2016. Testing was performed by our consultant, Testing, Engineering and Consulting Services, Inc. (TEC Services), who received the samples on September 26, 2016.

Three freeze/thaw samples were tested in accordance with ASTM C1364-16 *Standard Specification for Architectural Cast Stone*. The samples were tested using ASTM Test Method C666-15 *Resistance of Concrete to Freezing and Thawing*, Procedure A, and were evaluated based on the cumulative percent loss in mass. Per ASTM C1364-16, the cumulative percent mass loss (CPWL) shall be less than 5.0% after 300 cycles of freezing and thawing.

The average CPWL after 300 cycles of freezing and thawing for the three samples tested was **0.7%**. The results **do meet** the requirements of ASTM C1364-16, and are listed in the attached Tables 1-3.

S&ME appreciates the opportunity to provide these services to you. Should you have questions pertaining to this report or if we may be of further assistance, please contact either of the undersigned.

Sincerely,

S&ME, Inc.

Brian E. Cooley, EI Staff Engineer

Attachments: Results (Tables 1-3)

W. Zack Young, SI Construction Services Group Leader

Number of Cycles	Mass of Residue (g)	Total of Oven Dry Mass of Beam and Residue After 300 Cycles (g)	Percentage Loss
0	0.0	6716.8	0.0%
34	3.9	6716.8	0.1%
68	7.8	6716.8	0.1%
104	11.7	6716.8	0.2%
140	15.8	6716.8	0.2%
176	19.7	6716.8	0.3%
212	24.5	6716.8	0.4%
229	28.4	6716.8	0.4%
246	33.6	6716.8	0.5%
279	36.9	6716.8	0.5%
300	42.6	6716.8	0.6%

Table 2 – Freeze-Thaw Testing Results – Sample 2

Number of Cycles	Mass of Residue (g)	Total of Oven Dry Mass of Beam and Residue After 300 Cycles (g)	Percentage Loss
0	0.0	6144.4	0.0%
34	3.4	6144.4	0.1%
68	6.9	6144.4	0.1%
104	10.9	6144.4	0.2%
140	14.7	6144.4	0.2%
176	18.0	6144.4	0.3%
212	21.7	6144.4	0.4%
229	24.9	6144.4	0.4%
246	28.5	6144.4	0.5%
279	32.4	6144.4	0.5%
300	36.8	6144.4	0.6%

Number of Cycles	Mass of Residue (g)	Total of Oven Dry Mass of Beam and Residue After 300 Cycles (g)	Percentage Loss
0	0.0	6607.5	0.0%
34	5.3	6607.5	0.1%
68	10.5	6607.5	0.2%
104	15.8	6607.5	0.2%
140	22.2	6607.5	0.3%
176	28.1	6607.5	0.4%
212	34.3	6607.5	0.5%
229	39.8	6607.5	0.6%
246	45.9	6607.5	0.7%
279	51.6	6607.5	0.8%
300	57.1	6022.2	0.9%

 Table 3 – Freeze-Thaw Testing Results – Sample 3

Testing, Engineering and Consulting Services, Inc. appreciates the opportunity to provide our professional services for this important project. If you have any questions regarding this report, or if we can be of further assistance please contact us at 770-995-8000.

Sincerely,

TESTING, ENGINEERING, AND CONSULTING SERVICES, INC.

BrusnAmth

Brian Smith Project Manager

Stopplat

Steven Maloof Project Manager



Cast Stone Patching Instructions

Tools/Material:

- Patch kit supplied by VSI or grinding up left over stone material from the same job.
- Non staining acrylic concrete bonding agent, which can be obtained at any building supply store.
- Clean water
- Mixing container
- Spray bottle
- Plastic, wood or stainless steel trowel
- Sponge
- Blue painters tape
- Damp cloth

Procedure:

- 1. Mix a small amount of patch material (1 part white cement & 3 parts aggregate) with enough water to make it ball up without leaving a paste on your hand. This mixture should be really dry.
- 2. Add a small amount of the concrete bonding agent to the mix. Stir the patching mix for 3-5 minutes.
- 3. Soak the area to be patched and the surrounding area with a spray bottle.
- 4. Apply some of the bonding agent to the area to be patched.
- 5. Press the patch mixture into the damaged area with a trowel and smoothen the patch to match the surface texture of the stone. Too much tooling will create a slick surface.
- 6. After the initial set, rub the patch with a sponge or sand paper to achieve a sugar cube finish.
- 7. Cover the patch with a damp cloth or burlap for 24 hours to keep from drying out too fast.
- 8. Wash down with a masonry cleaner once the stone patch has cured out, usually 5-7 days.
- 9. It can take up to 12 months for a patch to match the color of the surrounding area, depending on the climate.



Cleaning Cast Stone

To Whom It May Concern,

Valley Stone Inc. (VSI) recommends using a mild detergent for cleaning newly constructed Cast Stone. Typically the cleaner used to wash down brick can be used for Cast Stone. The use of raw acid is never recommended on any Cast Stone surface. Always test the cleaner on a small, inconspicuous section of the wall to be cleaned. Testing will help determine the dilution rate that will be required. The higher the dilution with fresh water that is effective, the safer the cast stone will be from damage. Be sure to pre-wet the stone prior to applying the cleaner and then rinse well. Inadequate rinsing leaves residues which may stain the cleaned surface. Where Cast Stone and brick are intermixed, protect cast stone during cleaning of the brick and then clean the cast stone separately.

During construction every effort should be taken to protect the Cast Stone from damage or staining by the use of non-staining tarpaulins and should be stored above ground on pallets or planks. The most common stains during the installation of Cast Stone are dirt and mortar. Excess mortar or dirt should be removed and the stone cleaned with a mild detergent and scrubbed with a brush. Metal or abrasive tools should not be used to for cleaning as it could scar the Cast Stone.

Sincerely,

Chris Sylvester

Chris Sylvester – President / CEO Valley Stone Inc.