

# Care and Cleaning of Cast Stone

## Caring for Cast Stone

As with all things, cast stone must be cared for once installed. The following information will provide you with recommended solutions to several areas of care, as well as, provide suggested products to use.

### PROSOCO, Inc.

PROSOCO, Inc. is an industry leader specializing in the cleaning and sealing of various types of masonry products, including cast stone. Using samples of Stone Legends cast stone in all three standard colors, PROSOCO has provided laboratory tests and made recommendations as to which of their products, primarily cleaners and sealants, work well with our products (Test results are available upon request).

The following are their recommendations for cast stone care.

### New Construction Cleaning

Based on the test results, both cleaners, Sure Klean® Vana TroI® and Sure Klean® Burnished Custom Masonry Cleaner, and all dilutions performed well in removing excess mortar smears on the submitted tiles. The cleaners performed well in removing the mortar soils even after the mortar remained on the surface of the tiles for 21 days under ideal curing conditions. Sure Klean® Vana TroI® performed slightly better than Sure Klean® Burnished Custom Masonry Cleaner in terms of total mortar removal.

It is also recommended that the selected cleaners be used in the lowest possible concentration, typically a 1:3 dilution for Sure Klean® Burnished Custom Masonry Cleaner and 1:8 dilution for Sure Klean® Vana TroI®. They should be rinsed with the lowest pressure of water as practical, garden hose strength preferred. To facilitate easier removal of excess mortar and construction dirt while minimizing any potential adverse affect on the stone, clean within seven days of construction.

### PROSOCO, Inc.

Recognized nationally, PROSOCO has factory representatives available throughout the USA, who provide complimentary job site assistance and advice regarding the care and cleaning of stone. For information on how to contact PROSOCO, Inc., call Stone Legends at 1(800) 398-1199.

## Surface Alterations

Both dilutions of Sure Klean® Burnished Custom Masonry Cleaner and Sure Klean® Vana TroI® tested were effective in removing excess mortar and dirt from the cast stone tiles submitted for testing. The most appropriate cleaner and dilution should be determined on the specific job site, and will be dependent primarily on the nature and severity of soiling present at that location.

## Protective Water Repellents

Based on test results, all of the treatments can be recommended for job site testing on all of the cast stone tiles. For added stain repellency, Stand Off® Stone, Tile & Masonry Protector and Stand Off® Limestone & Marble Protector are recommended.

Apply all products in accordance with the manufacturer's recommendation provided on container labels and product data sheets. Testing should be conducted on site to determine the most appropriate water repellent product and procedures for a particular project. See product literature for additional application and product information.

## Protective Stain Repellents

Based on test results, Stand Off® Stone, Tile & Masonry Protector and Stand Off® Gloss 'N Guard can be recommended for use. For the best beading characteristics, Stand Off® Stone, Tile & Masonry Protector is recommended. For slight color enhancement and slight gloss, Stand Off® Gloss 'N Guard is recommended.

Apply all products in accordance with the manufacturer's recommendation provided on container labels and product data sheets. On site testing should always be conducted to determine the most appropriate stain repellent and procedures for a particular project.



**STONE LEGENDS**

**301 Pleasant Drive • Dallas, TX 75217  
(800) 398-1199 • FAX (214) 398-1293  
www.stonelegends.com • sales@stonelegends.com**

# Care and Cleaning of Cast Stone

## Stone Legends Recommendations

Following are some other recommendations from Stone Legends. Consider these the post-construction final punchout.

## Cleaning Cast Stone

After installation, we recommend cleaning the stone with a solution of muriatic acid and water (75% water), or with one of the cleaners from PROSOCO discussed on page 484.

When using the muriatic acid solution, cover areas that can be damaged. Wear rubber gloves. Work on a small area at a time. Wet the stone with clear water first. This is very important so you do not etch the surface of the stone. Apply acid solution and let sit for a minute. Rub stubborn stains with a soft brush. Do not use a metal brush. Rinse with clear water. This should get rid of stains, smudges and some mortar splashes. Repeat application for stubborn stains. Cast stone will take several days to dry evenly.

For the PROSOCO products, follow label directions.

## To Remove:

### Mortar

Use acid based proprietary cleaners, such as Sure Klean® Vana Trol®.



**Wear rubber gloves to protect your skin from the cleaners.**

### Paint

Use either a methylene chloride or non-methylene chloride masonry paint stripper such as PROSOCO Safety Peel

### Food / Beverage

Use a ph neutral non-acidic cleaner such as PROSOCO – Rinse-less Cleaner

### Copper / Metallic Stains

Use a phosphoric acid based cleaner such as PROSOCO Light Duty Concrete Cleaner.

### Mold / Mildew / Algae

Use a product containing a biocide to kill the



mold spore such as PROSOCO – BioKlean®

Household bleach is effective, but difficult to remove from the stone.

### Oil / Tar / Grease

Using a non-acidic cleaner / degreaser such as PROSOCO Asphalt & Tar Remover, Fast Acting Stripper, EK Degreaser

Remove heavy build up by scraping prior to application of chemical cleanser.

For best results in all cleaning, follow the directions on the label and use a hot or warm water rinse with pressure not exceeding 1000 lbs.

## Sealers

Unless you want a specific look, cast stone does not need a finish or sealer. Some like to seal it to make future cleaning easier (only a soft brush and water).

To protect your stone from the elements, we recommend PROSOCO's Weather Seal PD or ChemProbe's Prime-A-Pell®.

To protect your stone from staining, we recommend a siloxane based repellent, such as PROSOCO Stand Off® Limestone and Marble Protector.

If you plan to seal, please do so after installation and cleaning and allow the stone to dry before applying any sealer.

For information about PROSOCO, Inc. and ChemProbe, Inc., contact the Stone Legends sales staff at 1-800-398-1199.

## Smoke Protection

We recommend a water-based product that provides excellent protection such as Lambert Southwest's DecoSeal. (DecoSeal will slightly darken the stone but does allow easy wipe down of stone products).

## Patching Cast Stone

The following is a basic four step process for patching you cast stone product.

1. Crush extra stone to a fine powder with hammer. It is necessary to pulverize the sands to refine the patch.
2. Mix one (1) part adhesive with two (parts) sand or stone powder. Add small amounts of water until a stiff paste develops. Be sure to use very small amounts of water at a time!
3. Slightly dampen stone in patch area. Apply sand/adhesive paste with putty knife. Sculpt with edge of a stainless steel tool to match adjacent stone.
4. Repeat if necessary.
5. After fully dried, it may require a very light acid wash. Be sure to rinse thoroughly to neutralize the acid.

# STONE LEGENDS

301 Pleasant Drive • Dallas, TX 75217  
(800) 398-1199 • FAX (214) 398-1293  
www.stonelegends.com/sales@stonelegends.com

# Cast Stone Colors and Finishes

Tan.



## Colors

Stone Legends offers three standard colors for our cast stone products. These are Tan, Buff and White (refer to color photos on this page). The Tan and White colors are comparable to Indiana limestone, while our Buff resembles the limestone indigenous to Texas.

We have tried to make these as accurate as possible, but final color selection should be made from actual samples that will be furnished to you after your job has been setup, and prior to receiving your contract shop drawings, unless specifically requested earlier.

## Color Matching

Stone Legends products have very little color variation from piece to piece. Some variation is typical of a natural product. If desired, stone can be tinted slightly to even out the color overall. To achieve this:

1. Take a piece of waste stone to the local paint store. Purchase some A100 Latex paint in a color that matches the stone.
2. Dilute the paint to a thin stain texture. Start with 15 drops of water to 1 drop of paint. You may have to thicken slightly. But the idea is to have a very thin stain.
3. Using a makeup sponge or other applicator, lightly dab the color on the area to be blended. Be sure to feather over a large area to maximize the blending.
4. Allow to dry. You may use a hand-held dryer to speed the process.
5. Apply more paint wash if desired. Apply in small steps to avoid over coloring.

## Faux Finish

Faux finishing is the term for decorative painting techniques. Sponging, ragging, rag-rolling and color washing are some of the more popular finishing techniques.

These techniques are so popular simply because they're easy, inexpensive and offer a truly customized look. Plus, as an added bonus, they're easy to correct. Simply repaint and start over. All you need are the right tools, some instruction and a little practice.

Decorating retailers can help with the first two of these requirements and offer all the necessary products to get the job done right. Give the decorating centers in your area a call and find out what they have to offer.

Contact your the Stone Legends sales staff for step by step instructions for these techniques.

Buff.



## Antiquating

There are many ways in which to accomplish the aged or antique / faux look.

The natural process involves the set up by an algae or a bacteria growing in the stone or a dirt lodging in the stone. Most of the time, if you leave the natural patina on the exterior of the stone it will age on its own just fine, provided you don't seal the stone or inhibit it in anyway.

You'll especially notice the algae growing close to trees that retain moisture. Also, you'll notice one side of the trees are generally green. In general, the stone in this situation would produce the same effect.

However, there are several ways that you can accelerate the process. Contact Stone Legends for additional information.

## Color Washing



Color washing is one of the fastest and softest finishes to do. Consider doing multiple color washes to achieve your desired effect.

## Ragging Off

Ragging produces a very soft finish, but one of the more difficult ones to master. For your first time, always work with a partner.



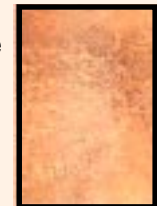
## Smooshing



Smooshing is a very dramatic technique that will enhance the texture and drama of your stone.

## Stone Washing

A grainy, highly textured technique which captures the natural essence of stone.



White.



# Additional Technical Information

## Custom Colors

Custom colors and finishes are available. Call Stone Legends to discuss your options with one of our consultants.

A sample will be required in order to match the color to existing stone. Quotes are based on the difficulty of matching the color or finish.

## Mix Design

Stone Legends' cast stone is a mixture of crushed silica quartz and a bonding agent in a matrix. The final effect is that of natural limestone.

## Finishing the Unfinished Side

Sometimes the back of a stone is visible. To get a finish similar to the surface on the front of the stone, two steps are required.

1. Rubbing or stoning the edges is recommended if one of the back edges is exposed or not adjacent to a mortar joint. Fine white stones are required to polish edges. Do not use any stone that is not white or the fines will fill the pores of the stone and leave behind another problem in the wake.
2. To remove the trowel face, acid washing will remove the silted surface and expose the quartz face adding luster and an evenness of surface texture. The strength of the muriatic acid or the repeating of the etching process will determine the ultimate texture.

## PSI Ratings

Stone Legends' cast stone products will have a minimum 5000 psi rating and in most cases averages approximately 6500 psi.

## Weight of Cast Stone

Use this equation:

$.079 \times \text{cubic inch total} = \text{weight in pounds}$

Therefore a cubic foot is:

$0.079 \times 12 \times 12 \times 12 = 136.5 \text{ lbs.}$

While every effort is made to keep individual pieces weight to a manageable level, Stone Legends recommends moving pieces with two or more people.

## Does Stone Legends weigh each part?

We do not currently weigh any pieces individually due to the possibility of damage to the stone. Pallets are weighed as a whole and any weight estimation of a single stone is based on a rough mathematical calculation.

## How many PSI is a fully set mortar joint rated to?

Mortar can be purchased in varying strengths. Types A & B average between 1600-2400 psi. That is considerably less than the 6000 lb. psi rating of the stone, which is as it should be.

The softer mortar's role is to provide a gasket seat, allowing minor movements of expansion and contraction of the stone.

Mortar mixtures resulting in extremely high psi's should be avoided to prevent possible damage to the stone and structural instability.

## Can Thinset be used in lieu of mortar mix?

The most common usage of thinset is in flooring applications. Best results will be obtained by following Stone Legends recommended mortar specifications. Nonstandard mortar mixes should only be considered after careful reading of all applicable product labels. Note that some frost proof mortar mixes have additives found in thinset.

## Is there a recommended pump for fountains?

Stone Legends recommends that you contact your local pool specialist. He should be able to recommend the best pump for your fountain and have access to proper installation instructions and hardware.