



CARE & MAINTENANCE - Cleaning

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The information within this and all our bulletins has been provided as a guideline and based upon statistical data and prior uses. We always suggest that you consult with your engineer, architect or contractor for the best design and use of cast stone for your project. Our design team is always available to answer any of your questions. We do not accept any liability from damages resulting from your interpretation of the data contained within.

The following is a recommendation for Cleaning, Care and Maintenance of Cast Stone Material.

Careful quality assurance and control of the cast stone material are important to ensure a professionally finished project. If cast stone is not properly handled, dirtying, staining, and discoloration may occur. Careful consideration is vital during transporting, storing, unpacking, setting, installing, and cleaning cast stone products.

Cast stone products are palletized and packed using the proper packing material, and stretch wrapped to aid in protecting the stone from foreign materials. Ideally, cast stone products should be transported on an air ride trailer, or properly crated if going LTL. Tarping will help eliminate chipping due to flying rocks and assist in preventing oils and dirt from penetrating the stone wrapping, especially during increment weather.

Once on the job site, cast stone should be placed out of any high traffic areas. Cast stone should be kept above ground on pallets and on non-staining material. If you are transferring material, remember to use a non-staining material under the stone to prevent staining from the pallet wood, resin, or other packing material. Allowing the cast stone to air after transport allows the product to cure faster as most product is wrapped and transported rather soon after manufacturing. Airing will also reduce the color variations present during drying and curing. After setting, material should be protected with a non-staining material during the remainder of construction.

Even with careful control and handling, a complete wash down should be done at the end of the project to clean the cast stone with soap and water or a mild cleaning solution normally specified to clean cast stone or brickwork. A light five percent muriatic acid solution (no more than twenty-five percent) is enough to clean cast stone material.

To start, it is important to rinse the wall with clear water to prevent any possible etching from the cleaning solution. Since common stains, construction dirt and mortar, can be normally be removed by using a mild detergent and water, try using it before investing in other solutions. Remove any excess mortar, taking care not to damage the stone. Lightly brush the area with the mild cleaner designed to remove mortar, if necessary. (Do not use a metal brush! It may scratch and discolor the cast stone material. A white tampico acid brush is available at masonry stores.)

Depending on the stain or soil, there are specific cleaners designed to remove them without damage to the stone. Remember to protect yourself by wearing gloves. Use only cleaners designed for their purpose and, as a precautionary measure, check out the cleaner on another piece of stone or on stone in an inconspicuous area, before applying it to the actual completed project. Below are possible solutions to remove certain stains (note if using a bleach or acid solution, it is important that you rinse thoroughly and prevent collection of the solution at the ground level. Bleach is not easily cleaned from the stone; use plenty of water):

- Algae – use a solution containing a biocide to kill spore or a diluted household bleach solution.
- Beverages and Food – use a ph neutral non acidic cleaner.
- Copper and Metals – use a phosphoric acid based cleaner.
- Grease and Oil – use a non-acidic cleaner/degreaser with warm water.
- Mold and Mildew – use a solution containing a biocide to kill mold spores or a diluted household bleach solution.
- Mortar – use an acid based cleaner suggested for mortar material.
- Paint – use a methylene chloride or non methylene chloride masonry paint stripper suggested for cast stone.
- Tar – use a non-acidic cleaner with warm or hot water and mild water pressure.

Once you have identified the stain, make sure that you choose only from many cleaners, degreasers, and paint thinners that are compatible with cast stone material to remove the stain.

Many commercial cleaners contain detergents mixed with a mild solution of phosphoric or muriatic acids. Ensure you use only a product designed for the proper cleaning by contacting the manufacturer of the solution, as they can tend to alter the finished look of the stone material. Use caution when applying acidic cleaners to areas where joints are left open or where a sealant is used as jointing material. Contact the sealant manufacturer for recommendations on cleaning.

Acids left on the stone may cause corrosion problems. Therefore, we strongly suggest proper rinsing of the stone with careful consideration of the lower stone where runoff and collection of acidic solutions may take place. It is important to frequently drench the lower stones to prevent corrosion of collected acidic solutions.

The *Portland Cement Association* publishes a guide for the removal of stains, and will be most informative if you encounter an unusual stain. Take measures to identify the stain cause so the proper cleaning procedure, and solution, can be used.

Unless sandblasting is being called for in the plans to create a desired rustic effect of the stone, it is highly recommended that sand blasting and power washing not be used for cleaning cast stone. No metal brushes or instruments, rubbing stones, tools, or devices that can damage, or scar the stone should be used in cleaning the cast stone.

Water repellent should only be applied after final inspection has occurred.

It is important to note that careful planning at the start will assist in eliminating disappointment for any homeowner or commercial designer at the completion of the project. Proper site logistics and planning will identify buildings, elevations, and locations for certain cast stone storage sites away from the main line of traffic.

There should be enough room at the job site for the storage of the stone, and the proper allowances for movement of contractors and vehicles so the two do not collide. Proper planning per building, elevation, or location can be submitted to the manufacturer so that materials are manufactured by individual locations, in a timely manner, and shipments can be spaced to allow for construction progress without filling the project site with too much stone at one time.

Take necessary precautions to protect doors, windows, decorative trims, and grade materials.

There is so little one can do to change the appearance of cast stone after installation, therefore, we strongly suggest that careful consideration and planning are executed from the start.