



New Rules - Cast Stone

for final clean-down of newly constructed cast stone buildings

"Dollar for dollar, nothing has more impact on the public's perception of a newly constructed masonry building, than its final clean-down."

— David W. Boyer



Why do we need new rules?

Because long gone are the days when cleaning masonry meant red clay brick and gray mortar only. Long gone are the days of "one size fits all" post construction cleaning of new masonry.

Today's masonry includes countless styles of clay brick; concrete brick; and manufactured, cast and natural stone. Trying to remove the excess mortar after construction without regard for each substrate's unique characteristics can mean disaster — color loss, etched mortar joints, wand marks and burned masonry.

The good news is that by following a few simple guidelines, you can bring home great results every time on any masonry surface — brick, block, manufactured stone — or any combination of these and other masonry units.

Some of those guidelines like "Always test" are timeless. Others, like "clean early," have been around, but are increasingly important. Still others, such as "know your surface" are new rules for masons brought up in the traditions of "masonry equals brick or block." Today - more than ever before - people must understand that different building materials demand a different approach to cleaning.

1. Know your surface.

The good thing about cast stone is the relative consistency of color and texture through the body of the unit. Some of the most forgiving cast stones — from the cleaner's perspective — are actually ground or profiled in much the same way as natural stone — or split to reveal the colored matrix and aggregate within the stone. Whether your project includes cast stone produced with Portland Cement or calcium silicate, all cast stone is somewhat acid-soluble. This means that cast stone can be damaged beyond repair by cleaning procedures which are perfectly safe for clay brickwork or rough-textured architectural block.

2. Use the right Sure Klean® cleaner.

For cast stone veneers, use Sure Klean® Manufactured Stone Cleaner. On buildings where cast stone is intermixed with clay brick or rough-textured architectural block, protect the cast stone during cleaning of the adjacent materials, then clean the cast stone separately. NEVER USE RAW ACID ON ANY CAST STONE.

3. Always test.

Even when you know the surface, and you have the right cleaner — test the cleaner on a small, out-of-the-way section of the wall. Testing will help you determine the most efficient dwell times and dilution rates. More importantly, you'll avoid costly unpleasant surprises.

4. Use the mildest dilution that gives effective results.

The higher the dilution with fresh water, the safer your cast stone will be. It's particularly important on smooth-textured cast stone. How do you find the best dilution rates? See rule #3.

5. Clean early.

Don't let mortar cure too long — particularly high-strength mortar. The longer unwanted mortar smears cure, the harder they are to remove. It's a big problem on sensitive surfaces. For smooth cast stone walls, the optimal time to clean is 7 - 14 days after the mortar joints are tooled. For rough-textured cast stone, the window is 7 - 21 days.

6. Basics still apply. Follow them.

- **Use lots of water** to pre-wet the stone before applying the cleaner. If you don't pre-wet, you're more likely to cause staining and excessive erosion of the cast stone and the mortar joints. Some staining can be corrected — for a price. Damage the mortar joints, however, and you've reduced the weather resistance of the entire wall. That kind of damage is irreversible. Use lots more water to rinse the spent cleaner and dissolved soiling from the surface. 6 - 8 gallons per minute is ideal.
- **If your tests** (see rule #3) find that pressure rinsing can be safely used, 400 psi is sufficient to rinse dissolved soiling and spent cleaner from the cleaned cast stone. Higher psi risks wand marks and eroded mortar joints.
- **Follow all safety information** on the product label. It's there to protect YOU!
- **Never go it alone.** Questions or problems? Call your distributor, masonry cleaner manufacturer, or the manufacturer's local field rep. Your success is their success.

7. Protect what you clean.

When the cleaned cast stone is dry, apply a penetrating, breathable weather-repellent. By keeping water out of the cast stone and masonry joints, you break the destructive freeze/thaw and wet/dry cycles that can crack and spall masonry walls. You'll also help prevent other water-related problems like efflorescence. For most cast stone, use Sure Klean® Weather Seal Siloxane PD (pre-diluted) or Sure Klean® Weather Seal Siloxane WB Concentrate diluted with 9 parts fresh water.

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