

INTRODUCTION

Years of smog, soot, outdoor elements, and dirt can give the exterior a dreary look. It might be necessary to embark on a facade cleaning. But we must be sure not to damage the decorative elements, paint and everything else that gives the building its architectural character. What cleaning methods are strong enough to remove dirt and stains, yet safe enough to protect delicate parts of the building? Should cleaning be done differently on different areas or surfaces of the exterior? By carefully analyzing the special treatment needs of your surfaces, a safe and effective cleaning program can refresh the look of your building restoring light and beauty.

First, we must remember that Masonry Flat, despite being a coating that does not form a film, which bonds to the mineral surface, is still an element external to the structure of the surface and therefore must be treated as such. Cleaning a coating is different from cleaning, removing encrustations, etc. from an original, intact mineral surface such as brick, stone or plaster.

METHODS AND GENERAL ADVICE

There are four kinds of water-based methods for cleaning facades: Delicate wash with cold water and brush, low pressure washing, soaking and steam/hot pressurized washing. Properly applied, water-based treatments are the least invasive types of facade cleaning and a conservative way to start the job, especially when dealing with typical dirt and grime.

- 1. BRUSH WASH + MILD DISH SOAP:** The most commonly used water cleaning is brush washing + mild dish soap followed by garden hose rinsing. This method guarantees excellent results and avoids a series of precautions that the use of pressurized water requires as it is a very invasive method.
- 2. PRESSURE WASHING:** Another common method, is pressure washing, in which a low- to medium-pressure spray (100 to 400 psi) is applied to the surface of the building. (the spray from a garden hose is approximately 60 psi.). The water pressure starts out low and is only increased as needed, followed by a scrubbing with a natural or synthetic (but not metal) bristle brush for stubborn areas and detailed elements. Abrasive cleaning treatments such as grinding, sanding, and blasting, can damage Masonry Flat, and your home. Sometimes a basic cleaner is added to the water to remove oil-based dirt from surfaces. Strong household detergents should not be used in water-based cleaning because they can leave a visible residue.
- 3. SOAKING:** involves spraying or misting the masonry surface for an extended period of time, usually up to several days at a time, to loosen heavy accumulations of soot and crusts, particularly in parts of the building not exposed to rain. Soaking, used in conjunction with water pressure and followed by a final water rinse, requires repeated applications that can take up to several weeks. But because it's a mild method, it's ideal for loosening and removing on delicate areas where Masonry Flat could be damaged.
- 4. STEAM OR HOT PRESSURIZED CLEANING,** is not commonly used, but can be effective for removing built-up soil and plant deposits, such as ivy, or for removing ferrous deposits left by the continuous flow of water from garden sprinklers. It is also an option for cleaning stone sensitive to acids used in some chemical cleaners. Contact a trusted mason to have this done professionally.

TESTING SAMPLE PATCHES

Before launching a full-scale cleaning, it's strongly recommended that the cleaning method be tested first on an out-of-the-way part of the building. Start with a small section, less than a square foot, trying the mildest treatment first and testing progressively stronger methods as needed. Tasking to time to identify the best course is better than risking damage.

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USE OF CHEMICAL AGENTS

The use of chemical agents should be applied by a professional

Chemical cleaners are effective for removing dirt, unlike water-based treatments. Acid-base cleaners are effective on unglazed brick and terra cotta, cast stone, concrete, granite, and most sandstones. Alkaline cleaners are best used on acid-sensitive masonry, such as limestone, marble, polished granite, and calcareous (chalky) sandstone.

Both types of chemical cleaners are sprayed or brushed on a wet surface and allowed to sit for a period of time, typically longer for alkalines than acidic cleaners. Depending on the substance being removed, several applications of the cleaner may be necessary. Both types are rinsed off with water; alkalines are given a slightly acidic wash first to neutralize them.

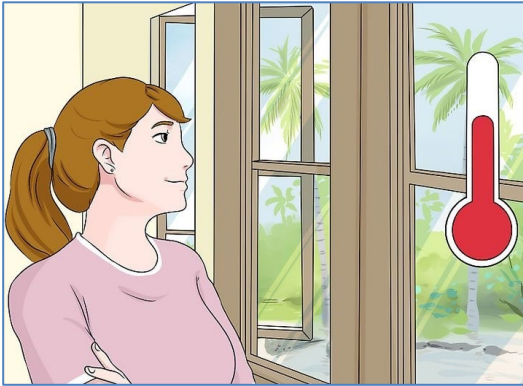
TIPS & PREPARATION

- Before beginning, it's important to identify the underlying surface and the conditions of Masonry Flat which must be well adhered to the substrate and select the most appropriate cleaning method for each type. Distinguishing between different types of surface (Natural vs Artificial stone, raw brick vs painted bricks vs reclaimed bricks, wood vs painted wood etc.) is especially crucial. Choosing the wrong type of cleaning method can cause irreversible damage to the Masonry Flat, so when in doubt, it's best to consult with a professional to determine the composition.
- Check that the underlying surface is not affected by rising damp. It is very important as using pressurized water could remove "Masonry Flat" already degraded by the action of the underlying salts. Consult a mason if you notice damage to the surface.
- Be aware that some chemicals that are safe for masonry can corrode or damage other building elements, such as paints, metal, glass, wooden window sashes, iron window bars, and window air conditioner sleeves. Any parts of the building not subject to cleaning but susceptible to damage should be covered or otherwise protected.

WARNINGS:

- Cleaning some type of bricks, which may contain impurities such as iron particulates, can react with certain cleaning agents, bringing dark stains to the surface. Always test a small area.
- Washing with excessive pressure or with a jet too close could expose hairline cracks and other small defects as well as remove loose mortar from joints while taking the paint off as well. Always test a small area while adjusting your pressure to prevent damage to the larger surface. **If whitish traces are found in the runoff cleaning water, that's a sign the water pressure is too high or the nozzle is being held too close.**
- Using too strong a cleaning agent can be abrasive and easily etch MASONRY FLAT, sandstone, soft stones and certain types of bricks or degrade the mortar.
- Holding the nozzle of the spray applicator too close to the surface can also damage MASONRY FLAT and strip away the top layer of the product by weakening its structure.
- It's best to schedule your cleaning during the warm weather. Cleaning, especially water-based cleaning, should not be done in temperatures below 50° F because water trapped in cracks and joints could subsequently freeze, leading to spalling and further cracking. A masonry wall can take a week or longer to dry out, so it's best to plan the cleaning when there is no risk of freezing soon after the application.

FIRST OPTION/NO WATER PRESSURE : PREPARATION + DELICATE SCRUBBING WITH WATER AND BRUSH



1 of 6: CHOOSE A WARM DAY FOR CLEANING.

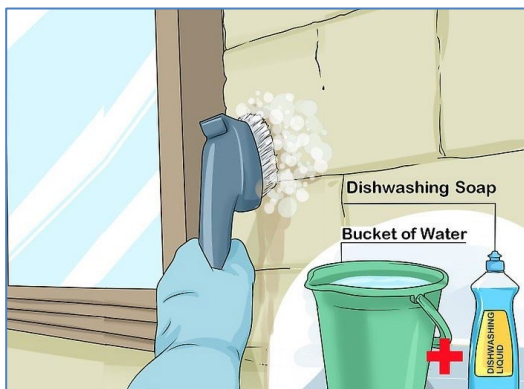
If possible, wait to clean the outside of your home on a warm, dry day. A windy day will cause overspray, which will make it hard to control. Water-based cleaning should not be done in temperatures below 50° F because water trapped in cracks and joints could subsequently freeze, leading to spalling and further cracking. A masonry wall can take a week or longer to dry, so it's best to plan the cleaning when freezing temps aren't likely soon after the application.



2 of 6: PROTECTION OF DELICATE ELEMENTS

Protect the area on and around your home. Begin by making sure all doors and windows are closed. Secure them with tape if necessary. Put tape and plastic sheeting over outside light fixtures, vents, and electrical outlets. Move lawn furniture away from the home. Cover plants and shrubbery with plastic sheeting.

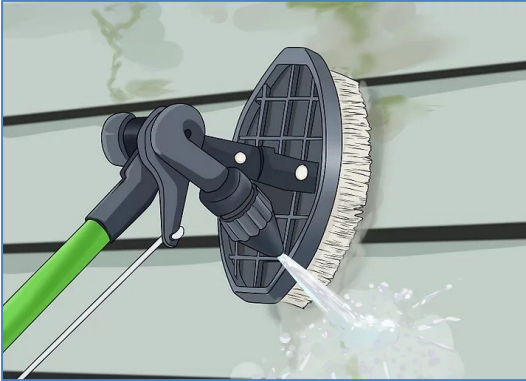
**Make sure kids and dogs are inside while you clean if you're using a pressure washer.*



3 of 6: DELICATE SCRUBBING

Use soap and water to remove stains. Inspect your home before you begin cleaning. Look for stains that can be cleaned without the use of a garden hose or pressure washing. For most stains, you can use a scrub brush, water, and regular dishwashing soap. Scrub the stain until it begins to lift. Avoid using heavier cleaners if possible since they could damage the vegetation around your home.

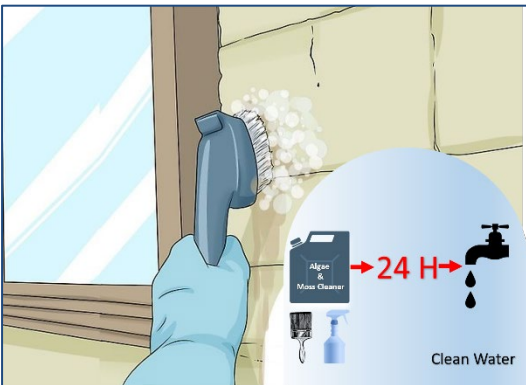
FIRST OPTION/ NO WATER PRESSURE (CONTINUED)



4 of 6: ALTERNATIVE TO PRESSURE WASHING

It is best to avoid pressurized water which must always be used with caution as it is very invasive and if used incorrectly it could lead to damage such as the removal of the coating or the infiltration of water inside it in the presence of micro cracks or other defects of some areas of the facade. Glazed windows, windows and balconies can also be at risk of infiltration or damage from the use of pressurized water.

More delicate washing systems are preferred, such as a car brush that you can attach to your garden hose. If the walls are not excessively dirty, it is sufficient to use only water to wash them; if not, you'll need to add detergent as well.



5 of 6: IN CASE OF MOLD OR ALGAE STAINS

To treat the most difficult stains, such as mold or algae, we suggest Romabio ALGAE AND MOSS CLEANER*, applying it to the stains with a brush or spray. Wait at least 24 hours and rinse gently with a garden hose and by using a soft to medium brush until the dirt disappears.

**Use caution when handling this product; wear goggles, plastic gloves, and work in a well-ventilated area.*



6 of 6: RINSE WITH WATER IF A CLEANER WAS USED.

If you used more than water, you will need to rinse off the cleanser. Again, work from top to bottom as you rinse off the house with only water. Allow home to dry naturally.

SECOND OPTION/ WASHING WITH PRESSURIZED WATER: PREPARATION + PRESSURE CLEANER



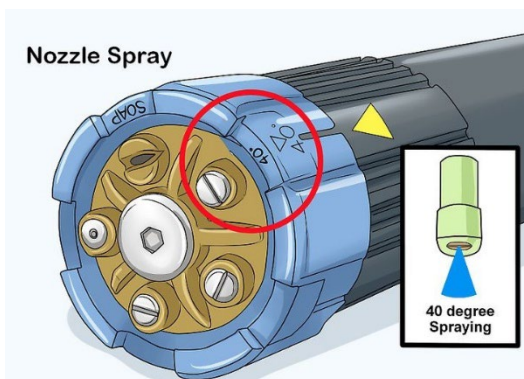
1 of 6: CHOOSE A WARM DAY FOR CLEANING.

If possible, wait to clean the outside of your home on a warm, dry day. A windy day will cause overspray, which will make it hard to control. Water-based cleaning should not be done in temperatures below 50° F because water trapped in cracks and joints could subsequently freeze, leading to spalling and further cracking. A masonry wall can take a week or longer to dry, so it's best to plan the cleaning when freezing temps aren't likely soon after the application.



2 of 5: PROTECTION OF DELICATE ELEMENTS

Protect the area on and around your home. Begin by making sure all doors and windows are closed. Secure them with tape if necessary. Put tape and plastic sheeting over outside light fixtures, vents, and electrical outlets. Move lawn furniture away from the home. Cover plants and shrubbery with plastic sheeting. *Make sure kids and dogs are inside while using a pressure washer.*



3 of 5: CHOOSE A NOZZLE TO PRESSURE WASH WITH.

Nozzles are typically measured in degrees. The spray is stronger the lower you go in degrees. Choose a low setting if you aren't familiar with pressure washing. A 40° angle is good to start with. You can gradually work down to a 25° angle if the 40-degree nozzle isn't getting the job done.

SECOND OPTION/ WASHING WITH PRESSURIZED WATER (CONTINUED)



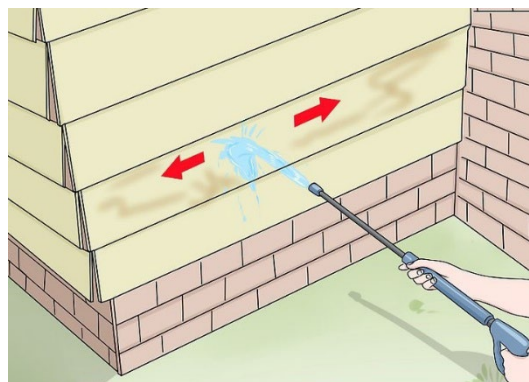
4 of 5: TEST THE PRESSURE WASHER ON A SMALL SECTION OF YOUR HOUSE

Pressure washing can do damage to a house, especially if the material the house is made of is weak or has weakened. Spray the pressure washer on a small, hidden part of the house. Switch to a garden hose or call in a professional if you see any damage done by the pressure washer.



5 of 5: SPRAY DOWNWARD

Begin pressure washing by spraying at a downward angle. Spraying at an upward angle can cause water to get trapped in the cracks or seams, which can cause damage to your house later on.



6 of 5: MOVE THE PRESSURE WASHER FROM SIDE-TO-SIDE.

Hold the pressure washer steadily and move from side-to-side in a sweeping motion. You should still be holding the pressure washer at a downward angle. Continue until you have cleaned all of the outside of the house.

Do not stop at one spot when using the pressure washer—always continue moving. Stopping in one place can cause damage.

WARNING

- *Wear eye protection when using the pressure washer.*
- *Do not use this machine if you are growing flowers or ivy near your home.*

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