



CLEANING SK1N CLADDING

INTRODUCTION

The final appearance of SK1N cladding depends primarily on the attention given during construction and the cleaning process. Even with good practices during construction, some cleaning may be required at the end of installation.

The selection of effective cleaning solutions, as well as the use of consistent and appropriate cleaning procedures throughout the job, is essential to successful cleaning and cannot be overemphasized. Improper cleaning practices can cause a host of problems that in severe cases cannot be repaired.

These instructions do not address specific safety issues related to cleaning SK1N cladding.

Beware that cleaning agents and processes may be hazardous and may cause injury if used carelessly or inappropriately. Cleaning operations should be performed only by personnel trained to handle the safety risks associated with the work and following the label instructions.

GENERAL

Prior to cleaning, there are several considerations common to all projects that should be addressed during the planning process.

Project Considerations

Clean Water.

Water used for cleaning should be potable. Iron content should be less than 2 parts per million by weight. Determine whether the local water includes additives, water softeners or other agents that may cause issues if used for cleaning.

Cold Weather.

Air temperature, surface temperature and wind conditions affect the drying time and reaction rate of cleaning solutions. Chemical cleaning solutions are generally more effective when the outdoor temperature is 50 °F (10 °C) or above. To avoid distressing the SK1N tile or increasing the risk of efflorescence, do not clean during freezing weather or when freezing weather is expected. Use cleaning methods that involve water only when the

Fornace S. Anselmo S.p.A.

Via Tolomei, 61 – 35010 Loreggia (PD) – Italy – Tel. +39 049 9304711 r.a. – Fax. +39 049 5791010

www.santanselmo.it - info@santanselmo.it

ambient temperature will be 40 °F (4 °C) or above and will remain so until the wall is dry. Ideally, temperatures should be above freezing for seven days after cleaning is completed.

Hot Weather.

Do not allow cleaning solutions to dry on the tile. Be aware that an increased risk of rapid drying exists in high temperatures. In hot weather, reduce this risk by working on small or shaded areas and being diligent about keeping the wall saturated during cleaning solution application and rinsing.

Work Area.

The size of the work area should be determined after trial cleaning or as part of the first area cleaned. The size of the work area can be modified as appropriate while the work progresses.

Work Sequencing.

Cleaning should be performed systematically, proceeding consistently within a given work area or scaffolding tier and from one end of the elevation to the other. Perform cleaning to achieve uniform coverage of surfaces, including corners, moldings and interstices, and to produce consistent results without streaking or damaging the wall surface. Avoid overlapping work areas.

Safety.

Some cleaning chemicals may be harmful, including their fumes. Protecting people and property is an essential component of any cleaning project. Use protective clothing and accessories, ensure proper ventilation, and exercise safe handling procedures. Comply with local laws regulating the use and disposal of chemicals and cleaning runoff or wastewater.

Dilution of runoff and its release into the rain management system should not be expected or allowed unless expressly permitted by the applicable jurisdiction.

Characteristics Requiring Extra Care.

New and existing installations may incorporate characteristics that must be considered in the development of a cleaning plan to avoid damage during the cleaning process. These can include but are not limited to decorative coatings or finishes and water repellents.

Trial Cleaning

Before cleaning, it is beneficial to test potential cleaning procedures and solutions on a sample area of about 16 ft² (2 m²), or large enough to evaluate the selected cleaning procedure. Although not common for small residential projects, trial cleaning on larger, more complex projects not only serves to determine whether stains can be removed but

also helps to identify the most effective procedures that cause the least damage to the cladding. Optimal concentrations of cleaning products and solutions to unexpected problems can also be determined through trial cleaning. Once approved, the test area can serve as a standard for the appearance of the cladding after cleaning.

Judge the effectiveness of a cleaning agent or procedure by inspecting the trial area after it has dried sufficiently, usually in about one week. Approval of the cleaned cladding in cleaning area should precede application of the cleaning agent to the remainder of the building.

CLEANING NEW SK1N CLADDING

With new construction, keeping the cladding clean as it is erected can be very cost-effective, as it can eliminate the need for extensive cleaning after construction. SK1N cladding should be cleaned soon after construction is completed to remove construction dirt that detracts from the appearance of the cladding.

Keeping SK1N Cladding Clean During Construction

It is important to use construction practices that will minimize the amount of cleaning required. The following are some general practices that can be used to construct a cleaner wall:

- Protect site-stored tiles from mud. Store tiles off the ground and under a waterproof covering.
- Scaffold boards closest to the wall should be angled away from the wall or removed at the end of the day to prevent rain from splashing dirt directly onto the completed wall.
- Protect the base of the wall from rain-splashed mud. Use straw, sand, sawdust, plastic sheeting or fabric spread out on the ground, extending 3 ft. (1 m) from the wall surface and 2 to 3 ft. (0.6 to 1 m) up the wall. Keep this protection in place until final landscaping.
- Protect newly completed work from adjacent construction practices that may cause staining, such as placing concrete or spraying curing agent.

Select Cleaning Method

Generally, the cleaning method that effectively cleans the cladding while being the gentlest, or least harmful, is the most appropriate. Try cleaning SK1N tiles by hand with a bucket and brush or pressurized water before using chemical cleaners.

Bucket and Brush Hand Cleaning.

Fornace S.Anselmo S.p.A.

Via Tolomei, 61 – 35010 Loreggia (PD) – Italy – Tel. +39 049 9304711 r.a. – Fax. +39 049 5791010
www.santanselmo.it - info@santanselmo.it

This is a popular method due to the simplicity of execution and the availability of proprietary cleaning compounds. This cleaning method is the least aggressive of the methods listed here and is applicable to all SK1N colors. Hot water (120 °F/50 °C) can be used to improve effectiveness of cleaning with water.

If a chemical cleaning solution is used, then compatibility should be established with the tile via trial cleaning.

Pressurized Water Cleaning.

Pressurized water is less labor intensive than bucket and brush cleaning and permits large areas to be cleaned much more quickly. However, the method requires more skill than the bucket and brush method, because effective results depend on maintaining consistent, appropriate pressure, water flow rate, distance from the wall, and angle between the nozzle and the wall. It is also important to use uniform horizontal strokes.

The effects of pressurized water cleaning on each project or SK1N tile should be carefully considered, because excessive pressure may damage surfaces, and remove finishes or other surface coatings, resulting in a different appearance. We recommend using a pressure between 100-300 psi (700 to 2000 kPa) and flow rate of 4-6 gal. (15 to 23) litre per minute.

High-pressure water cleaning may damage the SK1N tile. Pressures should be measured at the tip of the nozzle to determine conformance. Use a 25 to 50 deg. fan-shaped stainless steel nozzle tip, and maintain a distance of 12 in. (30 cm) minimum between the nozzle tip and the tile surface.

Hot water can also be used in pressurized water cleaning. However, note that some pressure washing equipment may not be capable of providing or using hot water.

General Cleaning Procedure

The following general cleaning procedure is applicable to a variety of cleaning methods and is commonly used for new and existing construction.

1. Timing.

Identify the appropriate time frame to begin cleaning. Avoid waiting too long between completion of the work and cleaning as stains may become increasingly difficult to remove.

2. Remove Light Soiling.

Remove light soiling using clean water and a fibre bristle brush.

3. Cleaning Solution.

Fornace S.Anselmo S.p.A.

Via Tolomei, 61 – 35010 Loreggia (PD) – Italy – Tel. +39 049 9304711 r.a. – Fax. +39 049 5791010
www.santanselmo.it - info@santanselmo.it

Do not use unbuffered muriatic (hydrochloric) or hydrofluoric acid. Use of unbuffered high-strength acid solutions such as these tends to cause further stains. Many proprietary cleaners contain acids; however, their formulations include other chemicals that make them safer, easier to use properly and more environmentally responsible.

4. Protect Surroundings.

Protect adjacent materials and nearby plants. Mask or otherwise protect windows; doors; and materials such as sealants, metal, glass, wood, limestone, cast stone, concrete masonry and ornamental trim from cleaning solutions. Cleaning chemicals may also damage plants and grass. It may be necessary to prevent the cleaning solution and runoff from contacting plants or the surrounding soil. Use protective clothing, equipment and accessories, in addition to proper ventilation and safe handling procedures.

5. Saturate with Water.

Thoroughly saturate the area to be cleaned with water to keep it from absorbing the cleaning solution or dissolved particles to a depth where they will be difficult to remove. When using pressurized water, a very low pressure (100 psi/700 kPa) is recommended.

Surfaces below the area being cleaned should also be saturated and kept wet until after the final rinse to prevent streaking and absorption of the runoff from above. If the wall surface appears to be drying, then reapply water until ready to apply the cleaning solution. Cleaning solutions containing dissolved particles can be absorbed by dry tile and cause staining.

6. Apply Cleaning Solution.

Clean 20 ft² (2 m²) of wall area at a time. The solution may be applied using a masonry cleaning brush or chemical pump/tank sprayer. Brushes should be long handled with stiff bristle fibers. Do not use metal brushes, which may result in further staining. If spraying, use a wide-angle fan-shaped sprayer nozzle tip and a pressure of 30-50 psi (200 to 350 kPa). No more than 50 psi (350 kPa) of pressure should be used, because higher pressure can force the cleaning solution deep into the tile to become a source of future staining. If stubborn stains are not removed, reapplication is often more effective than harder scrubbing or applying more pressure.

7. Rinse Thoroughly with Water.

Flush walls with large amounts of clean water before cleaned surfaces can dry (approximately 5 to 10 minutes after application). For pressurized water cleaning, low pressure (300 psi/2000 kPa) is recommended to flush the cleaning solution from the tile.

No matter what method is used, a thorough and uniform rinse is critical. Failure to completely flush the wall of cleaning solution and dissolved matter may result in the formation of a secondary stain. During rinsing, monitor the appearance of the runoff. Clear runoff at the base of the wall indicates adequate rinsing.

Fornace S.Anselmo S.p.A.

Via Tolomei, 61 – 35010 Loreggia (PD) – Italy – Tel. +39 049 9304711 r.a. – Fax. +39 049 5791010
www.santanselmo.it - info@santanselmo.it

Improper Cleaning

Cleaning failures generally result from one of the following actions:

- *Failure to thoroughly saturate the tile surface with water before and after application of chemical or detergent cleaning solutions.*

Dry tile permits absorption of the cleaning solution and may result in stains. Saturating the surface prior to cleaning reduces the tile's absorption rate, permitting the cleaning solution to stay on the surface rather than being absorbed. Likewise, thorough rinsing reduces the potential for stains caused by cleaning solution residue.

- *Use of improper chemical cleaning solutions.*

Improperly mixed or overly concentrated cleaning solutions can etch tile or discolor the tile.

- *Excessively aggressive cleaning methods.*

Cleaning methods such as abrasive blasting and high- pressure water cleaning can remove the outer surface of tile, resulting in a permanent change in appearance or damage.

- *Failure to protect windows, doors and trim.*

Many cleaning agents, particularly acid solutions, have a corrosive effect on metal. If permitted to contact metal frames, the solutions may cause pitting of the metal or staining of other cladding surfaces and trim materials .