

CLEANING

Introduction

CalStar fly ash paver products contribute to a distinct architectural aesthetic. Proper cleaning of the fly ash pavers can help maintain this look. This note discusses how best to clean fly ash pavers.

Cleaning Fly Ash Pavers

Always use the gentlest method of cleaning that is effective. All cleaning methods should be tested on an inconspicuous area of the installation, to determine if the cleaning method might cause discoloration or damage. When cleaning a sloped surface, cleaning should generally proceed from bottom to top. This allows uniform removal of the cleaning agent. The same cleaning method should be applied to an entire area, so that if any minor changes in appearance occur, the entire area aesthetic remains uniform.

Methods of cleaning are discussed below. Also see ICPI Tech Spec Number 5, "Cleaning, Sealing and Joint Sand Stabilization of Interlocking Concrete Pavement." In cases where this note and ICPI Tech Spec Number 5 differ, this note takes precedence.

Pressure Wash

Pressure washing can be used to clean fly ash pavers. Use the lowest water pressure and widest nozzle angle that is effective. Do not use pressure over 2600 psi. The minimum angle of the nozzle should be 15°. *Never use a nozzle with an angle narrower than 15°*, as this can remove parts of the surface, resulting in grooves in the paver where the water pressure was applied. Care should be taken to avoid the use of pressures over 2600 psi, as such water pressure can damage the surface of the fly ash pavers and expose some aggregate. No permanent damage is done to the fly ash pavers, but exposing the aggregate might change the appearance of the pavers, somewhat.

Abrasives should never be used to clean fly ash pavers. The use of abrasives, such as dry or wet sand or aggregate, can remove the fine finish of the fly ash pavers and permanently change the aesthetics.

Water and Brush

Some stains can be cleaned with the use of water and a stiff-bristled nylon brush. Thoroughly wet the surface of the paver, and scrub the surface with the brush. Use only as much force as necessary to remove the stain. Use of excessive force can remove part of the top surface of the fly ash paver, resulting in some minor aggregate exposure. While this has no effect on the performance of the paver, it can change the look and texture of the paver, moderately.

Chemical cleaning agents

Care should be taken when using chemical agents to clean fly ash pavers. Never use undiluted cleaners, as they can harm the finish of the fly ash pavers. Acids should be diluted to the mildest effective concentration. Be certain to test the cleaner on an unobtrusive sample area of the installation, before applying the cleaning agent to the entire installation. Prior to application of cleaning agent, soak area thoroughly, using a low-pressure water spray (under 50 psi). This prevents the cleaning agent from being

absorbed into the paver. Immediately after cleaning is complete, rinse area thoroughly with a low-pressure water spray (under 50 psi). Always wear protective clothing and safety glasses.

The following cleaning agents and concentrations are approved by CalStar:

- Prosoco Light Duty Concrete Cleaner, mixed with at least 5 parts water to 1 part cleaner (more water may be added, but never less).
- Prosoco Sure Kleen 600, mixed with at least 8 parts water to 1 part cleaner (more water may be added, but never less).
- Mild household detergents, such as dish soap, or scrubbing bubbles type products. It is essential to pre-wet the pavers before using any of these products.

Graffiti removal

Graffiti can be removed from fly ash pavers with a commercially available graffiti remover. It is much easier to remove graffiti as soon as possible after the graffiti occurs. If graffiti is allowed to stay on the pavers, it becomes more difficult to remove. Use the mildest effective dilution of the graffiti remover. Soak pavers thoroughly, using a low-pressure water spray (50 psi or lower), prior to application of cleaning agent. Apply graffiti remover, following manufacturer's recommendations. Scrub with non-metallic bristled brush. Several uses of graffiti remover and brush may be required. Rinse area thoroughly with a low-pressure water spray (50 psi or lower) immediately after cleaning is complete.

As with graffiti on any surface, it may be difficult to return the appearance of the surface to its original condition, but this method provides the best possible result.

Other stains

Refer to ICPI Tech Spec Number 5, "Cleaning, Sealing and Joint Sand Stabilization of Interlocking Concrete Pavement" for cleaning suggestions for a variety of specialized stains. In cases where this note and ICPI Tech Spec Number 5 differ, this note takes precedence. Avoid the use of acid cleaners, where possible. If acid cleaners are required, start with the most dilute concentration recommended by the manufacturer. Always test the cleaning agent in an unobtrusive area before using on the entire installation.

Summary

With proper care, CalStar pavers will provide a beautiful, long-lasting hardscape, and deliver both near-term and long-term environmental benefits. Following the approved cleaning instructions above will help these products retain their attractive appearance for years to come.

The information contained in this note is based on the best experience of CalStar Products, Inc. While this note makes recommendations, good construction practices should always be followed. Ultimately, the responsibility to make sound technical judgments resides with the project stakeholders, including the owner, architect, engineer, and mason.

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