

Patio Maintenance

Polymeric Sand, Sealers, and Efflorescence



What is Polymeric Sand and does it really Work?

Polymeric sand is a product made to fill the joints between pavers and flagstone. Its job is to help with the interlocking process, to resist weeds and give colour options for a cleaner appearance.

Many people have had bad experiences with old patios made with polymeric sand using previous technology, but the product has changed significantly over the past decade.



The Old Technology

About 10 years ago, most interlock jobs were completed with brick sand to stabilize the joints. Polymeric sand was invented because of the complaints from homeowners. The maintenance that brick sand cost the customers when weeds would enter their beautiful projects outweighed the costs that new polymeric sands cost during the installation process.

The first polymeric sands worked fairly well, but seemed to break down to the same consistency as brick sand in about 5 to 7 years. This is what most people remember as polymeric sand; because they grew up listening to their parents complain about paying a high cost to have the same problem return 5 years later.

What increased the problem in the last 5 years is the inability to spray round up to kill large areas of weeds. You can still get the pre-mix from your local box store, but it is usually very watered down, and it takes a lot of money to spray an entire laneway up to 5 times a year to control weeds. There are usually two solutions- get on your knees with a butter knife for hours and dig the complete depth of the brick, or lift and re-lay all of the product with new polymeric sand.

Many New Homeowners Have the Misconception that having Interlock is too Much Work

The failures of old polymeric sand technology has lead to a misconception of new homeowners being afraid of owning interlocking driveways or patios. “I don’t want a patio like the one my parents had, it is too much work”.

We often find that it takes a good education from our staff to explain why that is not a worry anymore in the interlock industry.

New polymeric sand is based on cement products that are added to the sand. New technology has made high quality polymeric sands more resilient and self-healing. They even make high performance sands for driveways and pool areas that have higher concentrations of cement to eliminate any chance of failure in high traffic areas.

The cement is the key, because it can crack and re-heal itself when it gets wet. When the old style sand cracked, it stayed that way. Soil was allowed to accumulate and weeds would start in these areas. Eventually the strength of the weeds would help break down the polymers, and your parents were left with unsightly weeds.

The other benefit of new polymeric sand is that it is strongest when it is soaking wet. This helps for those homeowners that like to clean their driveways or patios, because the new polymeric sand has no problem with standing the force of pressure washers.

Finally, for those who do not like maintenance, patios and driveways can be sealed for additional protection. Most homeowners are paying for a sealer on other concrete products anyway. Concrete companies make you do it to protect the concrete. Sealing interlock makes the cleaning of interlock a breeze, as there is less chance of staining and dirt and grime does not stick. Sealing protects the polymeric sand for even longer performance.



Photo credit to [Luz](#) under cc2.0

Most New Polymeric Sands are guaranteed for Life

It is very important that you talk to a professional when you buy. The imitations may save you a couple of bucks now, but you already know the headaches your parents went through with that stuff. Keep your contractor honest & make them show you the guarantee on their products before you get stuck with the mess.

Dealing with Efflorescence

It is always nice to have a completed landscape project in your yard. If it was a do-it-yourself project, you have a feeling of pride and accomplishment. If it was completed by contractors, you have a new landscape to enjoy and are glad the construction is finished.

After a few weeks you might notice white stuff in patches on the surface of your new brick or concrete unit retaining wall, patio or walkway. What is that white stuff, and where did it come from? Can I get rid of it? Will it hurt the bricks or concrete blocks? Here are some answers about the white powder known as efflorescence.

What is Efflorescence?

Efflorescence is a naturally occurring process. It is due to soluble salts that are found in the materials used to manufacture brick and concrete products. The salts may come from sand, gravel, limestone or other natural materials. When walls, structures or pavement made from these materials become wet, the salts dissolve and move to the surface as water evaporates. This results in the whitish powder, which are actually the salts that you often see on brick buildings, masonry walls and similar structures.



Will Efflorescence Damage my Wall or Walk?

Efflorescence is essentially harmless. Its presence causes no structural damage to the components or integrity of walls or paved surfaces. More than anything, it is unsightly. Who wants to see their new landscape construction project marred by white patches and powder? You should be able to have a clean, beautiful brick wall or concrete paver patio to enjoy.

How to Get Rid of Efflorescence

There are a number of commercial efflorescence remover products available. They are typically acidic solutions that cause the efflorescence to dissipate. The easiest ones to use come with a sprayer bottle that you attach to a garden hose. You may want to ask your landscape contractor or local garden center for a recommendation.

Though you may be in a hurry to put your efflorescence remover to work, it is probably best to wait awhile. With new construction, it often takes about two months for most of the soluble salts to work their way to the surface. It will not hurt your wall to treat it before that, but you will probably have to repeat the process again a few weeks later.

It is worth noting that efflorescence will often go away on its own. Acidity in rainwater can break down efflorescence and cause it to wash away. This is not a quick process and may actually take several years.

You probably do not want to wait that long. If your brick or concrete construction project has efflorescence, it is worth getting a removal product. Then you can enjoy your new landscape and have it looking its very best.



Upper part of the image is the surface cleaned to a point to show how efflorescence can obscure the true colors making paving stones look faded.



After photo of the Paving Stones after Cleaning & Sealing with STONESAVERS Surface Prep and Paving Stone Sealer.

Does Your Patio Need a Sealer?

Want to ensure your interlocking patio looks great for a long time? Don't neglect sealing it.

Make sure you chose a quality paver first that offers and advanced pigment process. Also chose products that offer colour all the way through the paver- this will help prevent fading due to minor erosion.



If you've had your interlocking surface for a few years, you might remember how bright and vibrant it looked when first installed. It is no surprise that over time, pigment can fade. After all- it is constantly exposed to the sun, rain and snow.

Most quality pavers can be brightened up by simply cleaning them properly with a pavement cleaner before sealing. It is recommended to clean with efflorescence cleaner, even if it is brand new. Always wait 60 days before sealing any new concrete paving job.

Efflorescence is a natural occurrence in concrete products when they are exposed to natural elements. Rain and cool nights increase the speed at which efflorescence can show up in a job. But don't worry, it natural and if it happens (5% chance of no efflorescence in high quality pavers) it only happens at the start of the life cycle of a paver. After 60 days it will wash away and never come back.

Misconceptions about Concrete's Maintenance Requirements

Most homeowners will opt for brick patios rather than a wood deck because of the maintenance issue- concrete is maintenance free, right?

Not entirely. Concrete acts like a sponge, and can absorb unfavorable materials.

Using a Sealer Will Prevent All Types of Damage

- Engine oil and brake fluid stains
- BBQ grease and staining food/drink (red wine, oils)
- Tree berries, sap and leaves
- Acid rain degradation
- Chlorine or lawn chemical damage
- Loss of joint polymeric sand and weeds growing in joints



What are sealers & how do they work?

Sealers prevent the brick from absorbing any of the above, making them easier to clean. It also increases the life of the paver and maintains that new look longer.

Paving stone and concrete treatments are generally made up of polymers, catalysts, and sunscreens that form a protective layer.

The solids ingredients of a sealer are usually acrylics, urethanes, epoxies, or pigments.

These solids are determined based on the properties of the surface and its use: ie: high traffic – hard surface vs. lightly traffic – hard surface. They can range from dull to high gloss.

They are usually applied as part of a 3 step process on existing surfaces:

- Remove stains that already exist on the surface to prevent locking them in
- Remove general dirt and debris from the surface
- Roll on the sealer and let dry completely

On a new surface, sealer can be applied without the stain removal process. It is very important to note the drying time and conditions of when to apply sealers. Some dry in 5 minutes and others take 8 hours. If a rain occurs during the drying process, then white spotting can occur.

What you'll find at Legends Landscape Supply

We carry the highest quality treatments to protect our beautiful patio stones.

Here's some info about our supplier:

STONESAVER products are designed by licensed chemists and have been put to the test with thousands of hours of QUV testing, shelf life testing, wear testing, blush testing, freeze-thaw cycle testing and stain resistance testing. Our formulations are premium and our products are manufactured in an ISO rated and fire code compliant chemical plant. We ship from a 25,000 square foot warehouse with bonded, insured T. D. G. certified carriers only. We are fully insured and offer unparalleled technical assistance to our customers. All our product labels are CCR compliant 2004.

Before & After Patio Sealing

Before sealing, pavers look faded and worn, but their original rich pigment can be brought out with proper cleaning and a single application.

Before:



After:



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