

How to Maintain your River Rock

Also called Chattahoochee or epoxy bonded stone

Out of all the available types and styles of materials you chose river rock now it's time to learn just a little bit about the wonderful product you have and how it should be maintained.

What is this stuff?

River rock (Chattahoochee or epoxy bonded stone) is a proprietary blend of some of the most advanced epoxy available anywhere in the world. The epoxy is 15° to 20° of the mixture and responsible for not only bonding the mixture to the surface but also bonding the individual rocks to each other. The rock part is generally a natural occurring blend of small colored gravel which tends to be deposited where rivers once flowed, the action of water and sand flowing over and through the stone wore the edges and helped to partially smooth out the stones (over millions of yours). Some rocks are processed by crushing large boulders, such as granites and marbles. You can also crush some recycled materials like colored glass and combine with epoxy to achieve that just right color and shine because river gravel is a naturally occurring color that nature in its infinite wisdom brought into being and deposited it over the surface of the entire planet the color can sometimes change with her mood.

Why use epoxy?

When you combine epoxy and rock together you get materials that are 3 times as strong as concrete and will adhere better to almost any surface than any other available product. Epoxy is also the part of the system that requires periodic maintenance in the form of a wash and seal. Why:

1. All things get dirty like your car, house, children, and etcetera.
2. Epoxy is very resistant to most strong chemicals but one thing that it is effected by is UV light. UV light can only affect the part of the stone that gets light to it. Therefore the part that we can see.
3. Animal fat's from a barbecue grill will also dissolve epoxy.
4. Muriatic acid will cause the epoxy to discolor.

What is a wash and seal?

The most important wash and seal is the first one and it should take place within the 6 to 10 months of the original installation.

You might say why so soon, let me explain it to you, during the process of installing your deck certain chemicals must be used, one such chemical is trowel slick, it is used as a material to keep the individual rocks from sticking to the trowel while you are trying to get the rocks to

pack tightly together to make the surface smooth to walk on, also a very well packed deck will hold up well where as a loose one will start to break down before it's time, after this first seal the deck should only require sealing about once every two to five year, depending on its exposure to UV rays.

Wash and seal is just what it sounds like. First you wash the surface. Washing the surface can be accomplished by following the steps listed below.

1. Using a pump up sprayer you can put chemicals on the deck to aide in your efforts, some useful cleaners would be but not limited to chlorine, rust stain remover, CLR cleaner, TSP, vinegar purple stuff, simple green, Zep-Cal, lime + rust remover. However it is imperative to first try any cleaner on a small remote spot on the deck. First to be sure that the cleaner does not harm the finish.
2. After putting chemical on the deck allow it to work. Sometimes it can help to apply more water from a hose or use a broom to adjutant the cleaner
3. Use a 2500 to 3000 PSI pressure washer to power off and rise out the surface
4. After the surface is washed clean you should allow the surface to dry out for at least 24 to 36 hour.

Now to the seal part....

First you need to get the product that you will seal with

We at McKinnon Materials Inc. feal the best product to maintain your deck is the same product that is used to construct your deck which is a 100% solid epoxy specifically designed for the job.

One important thing to know about the seal coat is that if we wanted to be more precise with our words we would call this a maintenance coating because that is what it does. Only about 30 percent remains on top where you can actually see it, the other 70 percent seeps down inside the structure coating all the stones this would also include all bonds that may have been compromised.

Sealing Tools:

1. You will need several roller covers, at least one for every two batches of epoxy (epoxy covers 150 sq. ft. per gal) covers should be 3/8 or 1/2 inch with phenolic care.
2. two roller frames can be reused
3. At least one, one quart mixing container (to mix up small amount of epoxy to be used for cutting). Cutting is the practice of trimming around obstacles and objects so that you do not get epoxy on surface that you don't want it on. Also once its cut in you can proceed much faster with the coatings job.

4. Two chip brush (a chip brush is just an inexpensive two or three inch wide paint brush)
5. Containers to mix in and dip your roller cover into (recommend 1 for every 2 kits and should have capacity at least 50% larger than kit of epoxy that you are going to mix) this practice allows sufficient space to mix the product well
6. At least one roller grid (this hooks on the inside of your bucket and allow you to roll off the excess epoxy instead of just dripping epoxy all over the deck.
7. Four to five feet extension handle to keep you from needing to get on your hands and knees to roll out product.
8. Some rags (for clean-up)
9. Xylene for clean-up and reducing the epoxy once it starts to set soap and water will not work.
10. Mixing sticks or jiffy mixer and a drill.

How to roll on epoxy sealer:

1. First it's recommended that you mix no more than a one gallon kit at a time, use the one gallon kit complete as packaged
 - a) Pore the entire container of resin in your mixing bucket
 - b) Pore the entire container of cure in your mixing bucket
 - c) If you are using a paint mixing stick you need to mix for at least three minutes and you need also to at least scrape the sides and fold that material into the mix, twice during the mixing. You can also at this time add 4 to 6 ounces of xylene and mix until uniform. (the addition of xylene is to make the epoxy easier to roll on the deck)
 - d) Now you can place the roller grid on the inside edge of the bucket and then you dip the roller into the epoxy then roll off the excess on the grid and then start rolling the epoxy on the deck.

Helpful Hints.

1. It's a good idea to measure up an aerie approximately 150 square feet if you use all the epoxy and the section is covered then you are rolling it on at the correct thickness, if not make an adjustment.
2. Do not waste time you only have approximately 30 minutes to use the one gallon of material.
3. If it starts to jell up or thicken. Stop using the mix it will only make a mess, discard it.
4. Once the bucket set overnight you can peel the epoxy out and it will be as good as new.

Cost

The epoxy to reseal the job would cost \$0.25 per square feet.