

DENSIFIER USER GUIDE (1 pint= 2"x8" or 3"x5" bag) (1 quart= 4"x6" or 3"x8" bag)

- 1. One bag of granular crystal powder: dissolve all this in high purity water to make densifier.**
- 2. One smaller bag of chalky powder: use 1 teaspoon per gallon of cold tap water to cure the densifier.**

Prepare Densifier Dissolve the whole bag of densifier in the purest water you can find such as deionized water, or purified drinking water. Add about $\frac{3}{4}$ final volume initially, dissolve all the crystals then top it off to the total volume. This solution is caustic and best store in glass container such as glass bottles. Keep out of reach of children! **Wear gloves and eye protection when working with this solution!**

Prepare Curing solution: Put 1 teaspoon in a gallon size container and fill up with cold tap water. Shake well and then let the excess powder settle for 10 minutes. Collect the clear solution into a spray bottle for use.

Densifier treatment:

- After polishing with grit #400, make sure there is no visible scratch mark left then dry and spray a layer of curing solution on and allow it to dry completely (skip this curing solution step for marble and travertine)
- Heat dry the surface by blow drying or exposing the surface to sunlight until it is hot. Always do this before applying the first layer of densifier. Then spread a thin layer of densifier on by a squeegee or a paint brush.
- When the first layer of densifier is partially dry, use an old credit card or squeegee to spread the soapy puddle around to fill visible pores. Let it air dry to a smooth coat naturally.
- Spread a second layer on after the first layer has dried out. Squeegee it around to mix with the top of the first layer. Cover the surface with plastic drop cloth to keep it moist for as long as possible. Let it soak until the next day or next weekend before continuing. Add more densifier to wet any surface that has dried out.
- Remove the plastic cover, squeegee the surface flat, and then let it dry out.
- Spray excess amount of curing solution on. After about 10 minutes squeegee off the excess, then let the surface air dry. You should get a smooth surface, if not repeat this step until you do.
- Spray curing solution on again and let it air dry slowly. Repeat this process a few times until the surface no longer feels soapy when wet.
- Continue polishing with grit #800. When the surface is smooth, go to grit #1500. I recommend that you run grit #1500, #3000, #10000 on some other rough surface to smooth them out completely and expose the embedded diamonds evenly before using them for the first time.
- After polishing with #1500, the surface should shine and reflect. If not the top surface isn't dense enough yet.

Tips and tricks:

- Avoid treating already smooth surface on prefabricated granite. Most of these surfaces especially from less expensive imported prefab have been treated with wax or acrylic wax so it will not soak densifier. Treatment may destroy some of the wax and make it worse. Treat only newly cut and polished area for these slabs. For scratches prefab, you'll most likely need to remove the top layer for densifier to work.
- The main goal of treating with densifier is to soak the densifier and cure component into the stone so that they react within and form stone particles to fill the spores thus making the top surface much denser. This is why it is very important to make the stone bone dry before adding densifier solution because it has some viscosity.
- Densifier solution can also be used as a cleaner/sealer/protector so wipe a small amount on a dry surface occasionally and then wipe it off after 5 minutes with a damp rag.
- The curing powder can be used to fill tiny defects and then treated with densifier to become semi-transparent, but treatment will take a while and the treated areas need to be kept moist throughout the entire process.