

## WHAT IS EFFLORESCENCE?

PAVE TECH, INC. recommends waiting 3 months before cleaning and sealing a new installation. If efflorescence is severe upon installation of the pavers, they can be cleaned with *PAVERPREP* to improve the appearance, but the pavers should be cleaned again with *PAVERPREP* just before the first sealing even if no further efflorescence is apparent. The reason for waiting to clean and seal is efflorescence and secondary efflorescence.

Efflorescence is a natural byproduct of all curing concrete and occasionally appears in clay products. It is the white haze or “chalky” substance on top of the pavers. Commonly, efflorescence shows more on darker colored pavers, especially a charcoal color. Efflorescence is mainly a cosmetic issue; it does not affect the structural integrity of the paver. It is brought to the surface by the slow evaporation of water through the paver. As water enters the microscopic capillaries in the pavers, it reacts with the calcium oxide and forms calcium hydroxide. This is raised to the surface during a slow evaporation and forms the white haze. When the supply of calcium oxide is exhausted, efflorescence will stop. Over time, it will usually wear off the pavers naturally.

Because efflorescence will only surface during slow evaporation, the process will take longer in dry conditions. The process can be sped up by watering the pavement in the evening every 2 or 3 days, but this could also cause other problems from hard water or rust in the water.

Another concern is possible secondary efflorescence caused by the material under the pavers, including the bedding sand, base material and even the soil below the base material. Water can react with any calcium oxide in these materials and surface on top of the pavers. This will take longer to occur. If the pavers are sealed with *PAVERECOGUARD* without removing the efflorescence first, it will still be visible after the sealer has dried. It will now be trapped under the sealer and can not be removed, even if the acrylic is stripped off. *PAVERPREP* is only used before the first time pavers are sealed. It has little or no effect on the sealed pavers before future applications. Likewise, if the pavers are cleaned and then sealed and more efflorescence surfaces, it can not be removed even if an attempt is made to strip off *PAVERECOGUARD*. It is impossible to remove all of the acrylic, which prevents *PAVERPREP*, or any acid cleaner, from dissolving the efflorescence after sealing.

Separate Application Guides and MSDS Sheets are available for *PAVERGUARD*, *PAVERRE-GUARD*, *SILOXAGUARD*, *PAVERPREP*, *PAVERDETERGENT*, and *PAVERDE-STAINER*. Contact your dealer or PAVE TECH for a copy. They are also available for downloading at [www.pavetech.com](http://www.pavetech.com).

## DISCLAIMER:

The information contained herein is based on data considered to be accurate. PAVE TECH makes no warranties express or implied and assumes no responsibility for the accuracy or completeness of the data. Pave Tech further assumes no responsibility for personal injury or property damage to vendees, users, or third parties caused by this material. Such vendees or users assume all risks associated with the use of this material.

# APPLICATION GUIDE Version 4.0 PAVERECOGUARD™

**PAVE CHEM®**  
SEALERS, CLEANERS and ADHESIVES

Visit website for the most up-to-date version of application instructions

*PAVERECOGUARD* is an ecological, semi-breathable coating sealer and joint sand stabilizer. It has been pre-modified with solvents to create a high quality water-based, **medium gloss** acrylic sealer. It is approved for sealing interior and exterior concrete pavers and all other concrete pavements. It will enhance the color of the pavers and leave them with a slight “wet look”. *PAVERECOGUARD* will also provide excellent joint sand stabilization. When the pavers are cleaned properly and allowed to fully dry, *PAVERECOGUARD* will leave no milky residue, discolor or peel off.

- *PAVERECOGUARD* is recommended for interior applications instead of solvent based sealers to eliminate the worry of toxic fumes.
- *PAVERECOGUARD* is not recommended for use around pool decks (slip resistance is greatly reduced when wet and pavers are hotter to the touch in bright sunlight).
- *PAVERECOGUARD* should NOT be used on clay or some natural stone surfaces (see *SILOXAGUARD* for these materials). Exposed aggregate is OK to seal with *PAVERECOGUARD*.
- *PAVERECOGUARD* is not recommended for use on pavers in areas that are exposed to constant water or areas that take a very long time to dry after moisture is introduced. In these conditions, the sealer could soften and become cloudy.
- *PAVERECOGUARD* is not recommended for use on retaining walls.

Before using *PAVERECOGUARD*, it is necessary to determine if the concrete pavers or concrete pavement should be sealed with *PAVERECOGUARD*.

- Do NOT apply *PAVERECOGUARD* if the pavers have not been installed for 3 months (see “WHAT IS EFFLORESCENCE?” Section for explanation).
- It is not recommended to apply *PAVERECOGUARD* if the pavers have not been cleaned with *PAVERPREP* or other cleaner specifically designed for pavers. NEVER use muriatic acid. Muriatic acid is a by-product of the leather tanning industry. There are contaminants in it that may stain the pavers and there is no control of the strength of the acid. This may cause etching of the pavers if too strong or unsuccessful removal of efflorescence if too weak.
- Do NOT apply *PAVERECOGUARD* to pavers that have been previously sealed with anything other than *PAVERECOGUARD* without first testing for product compatibility.

## *PAVERECOGUARD* Instructions

### CAUTION!

Before using *PaverECOGUARD*, be sure to read this entire application guide. Make sure to check tightness of lids before transport or handling. Avoid contact with skin and eyes. **Always wear protective glasses, gloves, boots and an air filter mask designed for use with paint spray.** Prolonged contact with skin can cause skin irritations. Keep out of reach of children. Shield buildings, landscaping and vehicles from spray drift. Dispose of empty containers according to federal, state and local regulations.

*PAVERECOGUARD* should be applied in 2 coats undiluted. The 2<sup>nd</sup> coat can be applied after the 1<sup>st</sup> coat is dry enough to walk on. It can be applied with a roller or a sprayer. Do NOT dilute before applying. The 1<sup>st</sup> heavier coat of *PAVERECOGUARD* seals the pavers and locks in joint sand. The 2<sup>nd</sup> lighter coat evens out the gloss and adds more protection. 2 coats must be applied, but no more than 2 coats.

#### Coverage:

**Sprayer:** Coverage when spraying with a low pressure sprayer is approximately 100 – 120 sq ft per gallon for 2 coats (i.e. 1 gallon of *PAVERECOGUARD* is enough to put 2 coats on a 100 sq ft area). When using a sprayer to apply *PAVERECOGUARD*, do not use one that has been used with other chemicals (including other PAVE CHEM products) unless it has been thoroughly cleaned.

**Roller:** When rolling on *PAVERECOGUARD*, coverage is approximately 70 – 80 sq ft per gallon for 2 coats (i.e. 1 gallon of *PAVERECOGUARD* is enough to put 2 coats on a 70 sq ft area). When applying with a paint roller, be careful not to over-roll the surface. Once it is spread, leave it alone. If not enough sealer is used or is over-rolled, the acrylic may be raised and show a surface texture.

#### Preparation:

1. Make all repairs to the pavement and conduct a thorough cleaning using PAVE CHEM's *PAVERPREP* (also use *PAVERDETERGENT* and/or *PAVERDE-STAINER* as necessary). See the *PAVERPREP* Application Guide for these instructions and procedures.
2. Once the surface is cleaned, barricade the pavement and keep all traffic off. Make sure that the tops and joints of the pavers are dry before starting application. After cleaning, this will take 24-48 hours, or longer depending on temperature and humidity. Make sure that all sprinkler systems are turned off. If it rains within the 24-48 hour drying time, start the clock over. If there is still some moisture present in the joints, a slight haze may appear around the joints shortly after application of *PAVERECOGUARD*. This will clear after a few warm sunny days have evaporated the remaining moisture out.
3. When the pavers and joints are dry, check the weather forecast. Do not start applying *PAVERECOGUARD* if rain is anticipated in the next 12 hours. Curing will take longer in colder temperatures; application is not recommended below 45°F (7°C).

#### Application (Sprayer):

1. **Pavers and joints should be dry.** Start at the HIGHEST elevation of the pavement. Spray side to side working toward the bottom of the pavement. Be sure to overlap each pass and apply the 1<sup>st</sup> coat liberally to previously unsealed pavers. When working next to a building or retaining wall, hold up a piece of cardboard or other material to shield from overspray. When spraying near edges with grass, try to angle the tip back toward the pavement to reduce overspray on grass. If there is excessive overspray or run-off, there may be some browning of the grass, but it will come back after 1-3 weeks.
2. The 2<sup>nd</sup> coat should be applied after the 1<sup>st</sup> coat is dry enough to walk on. Return to the highest elevation and apply the 2<sup>nd</sup> lighter coat in the same pattern. Spray enough to fully wet the surface, but no joint run off. Again, don't forget to shield buildings and walls.
3. After 2 coats have been applied, barricade the pavement to keep all vehicle traffic off for 24 hours. Foot traffic is usually allowed after about 4-8 hours.

**Note:** For the do-it-yourselfers, purchase a good quality sprayer; garden sprayers will work fine. Do not use the same sprayer for *PAVERECOGUARD* and *PAVERPREP* without thorough cleaning.

**Note:** For the professional, purchase a high quality steel sprayer with Viton Seals. If cleaned properly after each use, these should last for some time. Also, make sure the hose, wand and tip are of good quality. Do not use the same sprayer for *PAVERECOGUARD* and *PAVERPREP* without thorough cleaning.

#### Application (Roller):

1. If using a paint roller to apply *PAVERECOGUARD*, purchase new, high quality medium nap rollers. Place a sheet of plywood on the pavers and put your paint tray on top. The plywood will prevent excessive *PAVERECOGUARD* from spilling on the pavers when filling the tray or when dipping the roller.

2. **Pavers and joints should be dry.** Start at the HIGHEST elevation of the pavement. Roll on the *PAVERECOGUARD* working side to side toward the bottom of the pavement. Be sure to overlap each pass and apply the 1<sup>st</sup> coat liberally to previously unsealed pavers. When working next to a building or retaining wall, hold up a piece of cardboard or other material to protect from the roller. Be careful not to over-roll the pavement to avoid raising the sealer and leaving a surface texture. Apply the sealer and move on.
3. The 2<sup>nd</sup> coat should be applied after the 1<sup>st</sup> coat is dry enough to walk on. Return to the highest elevation and apply the 2<sup>nd</sup> lighter coat in the same pattern. Roll on enough *PAVERECOGUARD* to fully wet the surface, but no joint run off. Again, don't forget to protect buildings and walls.
4. After 2 coats have been applied, barricade the pavement to keep all vehicle traffic off for 24 hours. Foot traffic is usually allowed after about 4-8 hours. If there was some *PAVERECOGUARD* run-off into the yard, there may be some browning of the grass along the edge of the pavement, but it will come back after 1-3 weeks.

#### Clean-Up:

1. If a roller was used to apply *PAVERECOGUARD*, wash the roller, handle and paint tray with water and allow too dry.
2. If a sprayer was used, spray any unused sealer back into a *PAVERECOGUARD* container.
3. Pour approximately 1 pint of water into the sprayer tank and put the plunger back on. Shake the tank to rinse off all the sealer inside the tank.
4. Pump up the sprayer and discharge the water on top of gravel or cardboard. It is non-toxic, but may cause some browning if sprayed on the grass.
5. Remove the plunger again, then hold the sprayer wand up vertically and open the valve (trigger) to drain wand and hose back into the tank. Pour any remaining water out of the tank.
6. Use a cloth rag and some water to wipe down the top and outside of the tank, plunger, hose, wand and seals. Disassemble the tip from the wand and wash it thoroughly with water.
7. Allow the tank and all sprayer components to dry (lay the tank on its side for faster drying). Then put the tip back on the wand and put the plunger back on the tank to keep dirt out.
8. All empty containers of *PAVERECOGUARD* should be left open and allowed to dry (do not allow rain to enter containers). When dry, they can be disposed.
9. Make sure that the lids are securely fastened on any unused containers of *PAVERECOGUARD* before transporting or storing.

#### TROUBLE SHOOTING:

**Problem** - After the sealer has dried, there is a slight haze or "glazed-donut effect" on the surface of the some pavers or around some joints.

**Cause** - Moisture was still present when the sealer was applied. This moisture is keeping the acrylic soft and preventing it from bonding to the surface.

**Solution** - Do not do anything. It will clear up once the moisture has completely evaporated. Depending on the amount of moisture trapped and weather conditions, it should clear up in 4 – 14 days.