

ePAVE II[®] Concrete Resurfacer – Maintenance and Restoration

DESCRIPTION

ePAVE II[®] Concrete Resurfacer is a one-component, polymer-modified cementitious material for the resurfacing and restoration of existing concrete. It is suitable for broom finishes and troweled finishes on sidewalks, driveways, parking garages, parking lots and patios. **ePAVE II[®] Concrete Resurfacer** in a high SRI light grey provides a uniform, like-new look to concrete surfaces.

FEATURES AND BENEFITS

- Uniform color gives a “like new” look
- Unaffected by gasoline, antifreeze, oil and other automotive fluids
- Highly versatile allowing for broom or trowel finish
- Promotes a slip-resistant surface
- Compatible with water based sealers
- Advanced polymers promote superior adhesion and bond strength
- Freeze/Thaw stable
- Unaffected by salts and deicing chemicals
- Solar Reflective index exceeds LEED requirements for heat island mitigation

WHERE TO USE

- Pool decks, patios and sidewalks
- Parking garages
- Parking lots
- Driveways
- Repairing spalled or worn concrete
- Areas where slip resistance is required

SUITABLE SURFACES AND CONDITIONS

- Sound, stable and clean horizontal concrete surfaces. **DO NOT APPLY** over surfaces containing asbestos.
- ePAVE, LLC does not recommend installation of **ePAVE II[®] Concrete Resurfacer** on concrete with a compressive strength below 3,000 PSI or a density less than 100 lb. /cu. ft.

SURFACE PREPARATION

ePAVE II[®] Concrete Resurfacer is designed to adhere tenaciously to existing concrete. Successful installations require a thorough and complete bond between the substrate and the new wearing surface. Adequate bonding can only be achieved through proper preparation of the substrate surface. The surface must be clean, sound and free of oil, grease, dirt, curing compounds, wax and sealers. A good test to see if the area is suitable for patching is to place some water on the substrate, if the water beads up or is not absorbed into the concrete, it is not properly prepared.

- **Spalled concrete:** Surfaces exhibiting spalling from freezing, overwatering or chemical attack must be mechanically removed to provide a solid, sound base.
- **New concrete:** **ePAVE II[®] Concrete Resurfacer** can be installed to new concrete surfaces after a minimum curing period of 28 days.
- **Curing compounds:** Curing compounds will limit the ability of **ePAVE II[®] Concrete Resurfacer** to properly bond to concrete substrate. Remove curing agents according to manufacturer's recommendations. After removal, a trial, “mockup” installation should be installed to confirm suitable bond strength.
- **Topical sealers:** Complete removal of sealers is required to obtain maximum bond strength. Follow manufacturer's recommendations of remove through mechanical methods including, shot blasting, grinding, scarifying, sandblasting or high-pressure water blasting.
- **Contaminated Concrete:** All oil, grease, paint, dirt and dust must be completely removed. Mechanical methods are preferred; however, chemical methods may be equally successful if diligent care is exercised to ensure complete removal of not only the contaminant but also any residues of the cleaner itself. **IN NO EVENT SHOULD DEGREASER PRODUCTS CONTAINING SODIUM LAURAL SULFATE BE USED.** Whichever method is employed, the surface must be cleaned down to sound, solid, uncontaminated concrete.

MIXING

1. Into a clean mixing container, pour 3 quarts cool, clean potable water for each 50 pounds of powder.
2. Slowly add **ePAVE II[®] Concrete Resurfacer** powder while stirring.
3. With a low to medium speed drill (300-800 RPM) equipped with “Jiffler” or “H” style mortar mixing paddle, blend at low speed for a minimum of 2 minutes, ensuring a lump-free consistency.
4. Once a homogenous, lump-free consistency has been achieved, add up to 1 additional quart of cool, clean, potable water to attain desired workability.
5. Mixing ratio must remain consistent.
DO NOT OVERWATER THE MATERIAL
6. Allow fresh material to slake for 5 minutes and stir again for 1 minute.
7. Mechanical mixing develops a significant amount of shear, use caution not to over mix the product.
8. Do not retemper or add more water. Additional water will alter cured product's compressive strength, flexibility and may result in color inconsistencies.

PRODUCT APPLICATION

Methods include hand trowel, hopper gun, plaster pump and squeegee

EXPANSION AND CONTROL JOINTS

- Expansion and Isolation joints are designed, engineered features of structural concrete substrates and their integrity must be maintained.
- Do not allow **ePAVE II[®] Concrete Resurfacer** to fill or bridge any moving expansion or control joint.
- In the event a working joint is inadvertently filled, honor the joint by cutting the **ePAVE II[®]** surface to proper width and depth as soon as the product is cured hard enough to walk on.
- Fill any sawcut joints with a suitable joint sealant to protect against water intrusion and the potential of freeze/thaw damage.

PRODUCT APPLICATION

Methods include hand trowel, hopper gun, plaster pump and squeegee

1. Always follow Best Practices Installation Guidelines as established by ACI and ICRI.
2. Application temperature range is 40°F to 95°F (5°C to 35°C). Do not install material if temperature is forecast to fall below 40°F (5°C) within 24 hours of placement. If precipitation is imminent or forecast within 12 hours of placement, operations should be suspended until an acceptable window of opportunity is available.
3. Before application of **ePAVE II® Concrete Resurfacer**, prepare concrete substrate to a saturated surface-dry (SSD0 condition. DO NOT APPLY ON STANDING WATER)
4. In temperature above 90°F (32°C), follow ACI Hot Weather Concreting guidelines. As a general practice, for best results, apply material in the cool of day, protected from wind and direct sunlight.
5. General application thickness should be no greater than 1/16" (1.5mm) per lift.
6. Application techniques:
 - a. **Trowel:** Immediately after mixing, pour material onto the surface and trowel to a smooth, uniform finish. Immediately broom or finish to desired texture.
 - b. **Squeegee:** Immediately after mixing, pour material onto the surface and squeegee (flat blade) to a smooth, uniform finish. Immediately broom or finish to desired texture.
 - c. **Broom:** Immediately after mixing, pour material onto the surface and broom to desired texture.
 - d. **Hopper Gun:** Immediately after mixing, pour material into hopper gun equipped with large orifice and of 12 to 20 PSI. Hopper gun nozzle should be parallel to the surface at a distance of approximately 2 ft. (.61m). Using a circular spray pattern, cover 80% to 100% of the surface. Immediately broom or finish to desired texture.
 - e. **Plaster Pump:** Use only pumps that are specifically designed to handle high-viscosity, fluid cementitious materials. Apply material according to the guidelines and recommendations of the pump manufacturer.

CURING

- **ePAVE II® Concrete Resurfacer** is self-curing, allow to air cure after application. Care should be used when weather conditions impart variables, which may cause the overlay to dry out too quickly. High heat, sunlight and especially windy conditions may be detrimental to the proper curing of the overlay. Attempt to minimize application during such harsh conditions by working during cooler hours.
- Avoid walking on the newly installed surface for at least 1 hour, depending on temperature and humidity conditions.
- Protect from pedestrian traffic until material has cured to a minimum 100 PSI.
- Protect from vehicular traffic until material has cured to a minimum 1,000 PSI.

STORAGE

ePAVE II® Concrete Resurfacer should be stored in a cool, dry indoor facility and must be protected from moisture. It should not be subjected to pressure or high temperatures during storage due to the risk of caking. Do not stack pallets more than 2 (two) high. Storage time should not exceed 6 months from the time of delivery.

PRODUCT PERFORMANCE PROPERTIES

Performance Standard	Results
Pot Life*	10 to 40 minutes
Open Time*	10 to 25 minutes
Application Temperature Range	40°F to 95°F (5°C to 35°C)
Color	Natural Light Gray
Initial Set (Vicat)*	15 - 60 minutes
Final Set (Vicat)*	30 minutes to 8 hours
Compressive Strength (3 Day) ASTM C-579	>3,000 PSI
Compressive Strength (28 Day) ASTM C-579	>6,500 PSI
Flexural Strength (3 Day) ASTM C-508	>850 PSI
Flexural Strength (28 Day) ASTM C-508	>1,700 PSI
Abrasion Resistance ASTM C-779	No statistical loss
Tensile Strength (1 Day) ASTM C-307	>250 PSI
Tensile Strength (3 Day) ASTM C-307	>325 PSI
Tensile Strength (28 Day) ASTM C-307	>950 PSI
Shear Bond Adhesion (3 Day) ASTM C-882	>50 PSI
Shear Bond Adhesion (28 Day) ASTM C-882	>1,450 PSI

Flammability

Nonflammable

*Dependent upon temperature, humidity and wind conditions

CRACKS

- All cracks should be repaired to inhibit their ability to reflect or telegraph up into the new **ePAVE II®** surface. However, it is still possible that some cracks will reflect to the surface. In most cases, small hairline cracks do not pose a threat to the performance of the **ePAVE II®** surface.
- If cracking is active, structural defects must be remedied prior to attempting to repair the cracking. Consult the project engineer for recommended methods and materials.

CLEANUP

- Clean up tools with plain water as soon as possible as **ePAVE II® Concrete Resurfacer** hardens quickly. Cured material must be mechanically removed.
- Disposed of excess product in accordance with local, state and federal requirements for cementitious materials.

STATEMENT OF RESPONSIBILITY

- Before using user shall determine the suitability of the product for its intended use and user alone assumes all risks and liability whatsoever in connection therewith.