Coval Group
12811 Royal Dr, #110
Stafford, TX 77477
Phone: 281 566 4277

Concrete Coat

Topcoat for Epoxy & Highly Polished Concrete or Concrete Primer

PRODUCT DESCRIPTION:

Coval Concrete Coat is a thin-film single component coating designed to protect and rejuvenate epoxy floors and to coat highly polished & densified concrete and masonry surfaces from the destructive forces of water, chloride ion penetration, harsh chemicals, food and beverage acids, bird and animal waste matter, salt spray, gum, and graffiti. The coating forms covalent bonds with the inorganic concrete. Traditional coatings require a rough surface profile during concrete preparation to give good adhesion. This coating does not and is the only system that can be used reliably on polished concrete to give a superior appearance glossy clear finish.

The inorganic properties of the coating give it hardness approaching glass. In addition, the curing process and chemistry allows it to form bonds with itself as well as the surface. This ability to covalently bond with itself never goes away. Our coating is an infinite system that with minimal prep can be easily repaired to recreate the original gloss at any time.

CONCRETE COAT will not peel or flake. **It is designed for application over our Concrete Primer.** CONCRETE COAT can be used as a guard coat over polished and densified concrete or as a topcoat over epoxy and urethane. Available in a gloss, satin, or matte finish.

RECOMMENDED USES:

CONCRETE COAT is a great solution to combat moisture, food stains, mild acids, bird & animal waste, and graffiti.

- Precast concrete walls & structures
- Polished concrete
- Masonry pavers
- Bricks
- Cement block
- Driveways
- Paths
- Cement overlays

Thin Film Coatings:

CAUTION: Coval Coatings are professional grade coatings and should only be applied by experienced professionals. Coval has created a completely new kind of hybrid cross linking coating. This extreme cross linking is the science that allows the coatings to be so hard and durable, yet so thin. As they cure, the extreme cross-linking creates a high surface tension which in turn gives the coating extreme hardness.

The best practice is to apply enough coating to “wet-out” the surface and leave it to dry. Do not exceed 2-3 mils, wet film thickness. **MORE IS NOT BETTER.** If you apply the coating too thick, it will attempt to cross-

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link away from the surface, which may cause fracturing or delamination. Over applying the coating will either destroy the coating or cause whatever the coating is applied on to peel. Yes, it is amazingly strong.

To achieve a thicker coating, apply in multiple layers rather than applying one 'thicker' layer.

Our coatings are specifically designed for the substrate listed in the Data Sheet and should never be applied to substrates not listed.

PRODUCT CHARACTERISTICS:

Concrete Coat is	<100 g/liter VOC
ASTM D-4060 Taber Abrasion	<1
ASTM D-3363 Film Hardness Taper,	39.11

ASTM D-2047 Static Coefficient passes ADA requirements*
E96-10 Water Vapor Transmission, average WVT 0.8053 gr/ft2/hr., average perms 1.9406 gr/ft2/hr. G155 Xenon Arc, wavelength 340nm irradiance 1.0 w/m2 500 hours, slight change
Temperatures up to 300 degrees Fahrenheit

ASTM D-245 Heat Resistance	230 C
ASTM D4541 Adhesion	7.1 MPa
ASTM D3359-97 Adhesion	4
ASTM D8770 Water Immersion	9
ASTM B117-111 Salt Spray Scribed	6

*Always obtain independent retest of the static coefficient after applying any coating on walking surface to verify new application meets OSHA requirements.

Stain Data:
***R= Removal Method**
***Tests are 30 minutes minimum**

Staining Agent*	Dry Cloth	Wet Cloth	Cleaner Needed
10% Citric Acid	R		
10% Nitric Acid	R		
20% Hydrochloric Acid	R		
30% Sulfuric Acid	R		
Acetone	R		
Balsamic Vinegar	R		
Betadine		R	
Black Crayon		R	
Brake Fluid	R		
Brown Shoe Polish		R	
Calamine Lotion	R		

Catsup	**R**		
Chocolate Syrup	**R**		
Coffee	**R**	**R**	
Ethylene Glycol	**R**		
Gasoline	**R**		
Glacial Acetic Acid	**R**		
Grape Juice	**R**		
Iodine	**R**		
Lipstick	**R**		
Methyl Ethyl Ketone	**R**		
Motor Oil	**R**		
Mustard		**R**	
Permanent Marker			**R**
Picante Sauce	**R**		
Pickle Juice	**R**		
Red Wine	**R**		
Skydrol	**R**		
Sodium Hydroxide	**R**		
Spray Paint			**R**
Tea	**R**		
Toluene	**R**		
Worcestershire Sauce	**R**	**R**	

Spread Rate
Recommended Spread Rate per coat:
Wet mils: 5.0-6.0 per coat
Dry mils: 0.4 average

Coverage:
Coverage: 250-350 sq. ft./gal (approximate)
Coverage will vary depending on the porosity and texture of the substrate, as well as the applicator's method of application. Always use Coval Concrete Primer to pre-seal porous concrete surfaces first. Polished and densified concrete will yield the highest spread rate.

Drying Time:	(@ 77 F, 50% RH): Temperature, humidity, and film thickness dependent. (The higher the humidity, the faster the dry time)
Touch:	2-3 hours
Through:	3-5 hours
Walk on:	5 to 7 hours
Full Cure:	7 Days

Properties:

Color:	Clear to slight amber to rose (depending on temp and humidity) always dries
clear. Finish:	Gloss or Satin
Vehicle Type:	Solvent Base
Flash Point:	(C Penskey-Martens closed Cup) -
9C/15F VOC:	Less than 100 g/L
Weight/Gallon:	7.36 lb/g

Semi - breathable

APPLICATION INSTRUCTIONS:

CONCRETE COAT, as with most final finishes, is best sprayed on to achieve optimum finish and appearance. With all methods of application, always mask off any adjacent surfaces to keep them free of drips or accidental coating. CONCRETE COAT should be sprayed with an acetone/alcohol proof pump sprayer with a cone or fan tip. However, if the project does not allow for spraying, as an alternative, roll on CONCRETE COAT using a high-density short nap roller cover. This type of alternate application will not yield the same spread coverage and will not yield the optimum smooth finish as spraying.

If applying outdoors, make certain the ambient temperature is between 45°F and 105° F, and RH is under 90%. Make certain that there is no chance of rain for a minimum of 5 hours after the estimated time of completion of the coating process. Also make certain there will be no additional return of morning dew to make the surface damp again before it has had a chance to dry for at least 5 hours.

Surface Preparation:

Surface must be clean, dry and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material including the removal of all existing silicone sealers. Apply directly to epoxies, urethanes, terrazzo, and densified surfaces. When applying directly to new or old concrete, etch or grind the surface to remove laitance/weak concrete but aggressive surface grinding is unnecessary. Apply enough Concrete Primer so that water will bead on the surface. After properly sealing with Concrete Primer, apply Coval Concrete Coat. New concrete should cure a minimum of 28 days before application. Always apply Coval Concrete Primer to seal and prime the surface before applying CONCRETE COAT. Neutral surface PH of 7-9 and moisture content must be less than 13%.

Note: Concrete primer can be pigmented with acetone soluble dyes, see Concrete Primer label, or visit www.coval-group.com for details.

IMPORTANT: REMOVE ANY SILICONE

CONCRETE COAT will not adhere to silicones or silicone modified grouts. To determine if the surface is previously sealed or coated, sprinkle water onto the surface. If the water is absorbed and the surface becomes darker, it has not been sealed. If the water beads up, there is a coating or sealer that must be removed to allow adhesion to the substrate. Remove silicone sealers, then rinse with fresh water and allow to dry. **Moisture content not to exceed 13% before applying is required.**

Painted Surfaces:

If in sound condition, clean the surface of all foreign material. Rinse with fresh water and allow to dry. If the paint is peeling or badly weathered, re-application of the existing paint may be necessary. If re-painting is required proceed with that process outlined by the paint manufacturer, then apply CONCRETE COAT, following the paint manufacturer's re-application timetable. If re-paint is not necessary, the old paint will require cleaning to the desired appearance before applying the CONCRETE COAT.

Test Area:

Due to the wide variety of texture and porosity of concrete and masonry surfaces and the various methods of application and environments, CONCRETE COAT in an inconspicuous location to ensure adhesion and determine that the desired look is achieved. There will be a slight enhancement or change in appearance from the natural surface, along with a shine, either gloss or satin, depending which finish is chosen. This is a good standard practice for any coating applicator.

APPLICATION TYPES:

Pump Sprayer:

Satin & Matte finishes: stir or shake the contents thoroughly in the container to re-suspend the matting agents that have settled to the bottom before pouring into sprayer. Remove all particle filters in the sprayer to avoid clogging. **Re-shake the pump sprayer every 10-15 minutes**, to re-suspend the matting agents ensuring a consistent finish.

Only use an acetone/alcohol proof pump sprayer. Maintain an adequate PSI to create a consistent flow and finish. Maintain a 12-16" distance from the tip to the object. Apply 3-4 mils wet film thickness (WFT) and never allow puddling. It is always best to spray on a few mockups to get the feel of putting down this product before attempting an actual project. Be careful not to apply too thick (THIN TO WIN) or allow the product to puddle as this will cause too much surface tension and possible delamination.

Only apply one coat unless there is a flaw in your application on the first coat or a thicker finish is desired. If a second coat is necessary, wait 4-6 hours for the surface to dry. Clean the floor of dust and reapply.

Roller

A roller can be used on rough textured surfaces, brick, CMU, broom finish or exposed aggregate concrete, where a smooth even gloss is not required. Use a high-density short nap roller cover and apply to the surface maintaining a wet edge. Make certain the roller is always completely saturated.

Only apply one coat unless there is a flaw in your application on the first coat. If a second coat is necessary, wait 4-6 hours for the surface to dry. Clean the floor of dust and reapply

INTERRUPTION OF WORK:

If you need to stop, use a corner or visible joint so the finish is as seamless as possible

CLEAN UP:

Clean tools and flush equipment with acetone at least twice immediately after application.

IMPORTANT - once coating is dry the tools will not clean up with acetone or any other solvent. Spray equipment will break down if not cleaned properly and plan on replacing your pump sprayer after 2-3 applications.

STORAGE:

If you have excess coating remaining in a container, we recommend 1) put a nitrogen blanket on the top of the remaining liquid in the container or 2) move the remaining coating to a smaller container with as little air/oxygen in the container as possible. Store in cool dry location. Do not store solvent based products in sun or in sun heated vehicle as overly heated product can turn dark in color and remain tinted when applied.

CARE AND MAINTENANCE:

Clean with a mop or Auto-Scrubber using non-film forming detergents and then rinse with water. If an area becomes damaged, clean and re-apply the coating. Prevent any traffic on the area for a minimum of 8 hours. Keep moisture off repaired area an
d allow curing for 7 full days.

SAFETY AND ENVIRONMENTAL:

Always wear OSHA approved 1910.134 and ANSI Z88 2 respiratory protection. Fresh air and exhaust should be provided in enclosed work areas. If inhaled, remove affected person to fresh air and call physician immediately if physical difficulties occur. Wear butyl-rubber gloves and other skin protection to avoid contact. In the event of contact with skin, wash skin thoroughly with soap and water. Chemical safety goggles or splash shields are required. Do not wear contacts without eye protection. Immediately flush eyes with water for 15 minutes after contact and get medical attention. If accidentally swallowed, rinse mouth thoroughly and obtain immediate medical attention. (In enclosed areas, make sure to have an observer watching the applicator for any signs of physical distress)