

Coval TOP-COAT

Chemical Resistant Clear Coat for Decorative Coatings

PRODUCT DESCRIPTION:

Coval **TOP-COAT** is a thin-film single component coating designed to protect decorative coatings from surface wear, harsh chemicals, food and beverage acids. It contains a hybrid inorganic/organic polymer. This allows it to possess similar flexural properties to softer coatings but also possess hardness and wear properties approaching glass. When coatings or paints harden, a hydroxyl group will form on the surface. Coval TOP-COAT will covalently bond to those hydroxy groups as it crosslinks with itself.

RECOMMENDED USES:

TOP-COAT is a great solution to combat moisture, most stains, mild acids, bird & animal waste, and graffiti.

- Top-Coat for Epoxy, Urethane, or Painted Surfaces
- On Top of Coval Concrete Primer
- Over Densified and Sealed Concrete
- Any masonry pre-cast product

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-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: 2.0-3.0 per coat

Dry mils: 0.4 – 0.8

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.

Dry Time:

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.

Semi - breathable

APPLICATION INSTRUCTIONS:

TOP-COAT, as with most final finishes, is best sprayed on to achieve optimum finish and appearance. Use an Acetone Pump Sprayer with a red fan tip, or a full cone jet tip. Maintain consistent air pressure by

pumping the sprayer regularly. With all methods of application, always mask off any adjacent surfaces to keep them free of drips or accidental coating.

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 and dry and in sound condition. Remove all oil, dust, grease, dirt, and other foreign material. Any existing floor that has retained oil must be completely free from any further wicking action, as this will prevent a bond and the coating will delaminate.

IMPORTANT: REMOVE ANY SILICONE

TOP- COAT will not adhere to silicones or polymer 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.**

APPLICATION TYPES:

Pump Sprayer:

Satin & Matte finishes: stir the contents thoroughly in the bottom of the container with a low speed drill mixer. This is 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.

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.

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 and mild detergent then rinse with water. If an area becomes damaged, clean and dry the surface and re-apply the coating. Alternatively, a wet scrub with a floor maintainer and white pad is optimal. Prevent any traffic on the area for a minimum of 8 hours. Keep moisture off repaired area and 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)