



Coval Molecular Coatings

1391 Skillman Lane, Petaluma CA 94952



DATA SHEET

DESCRIPTION

Coval Tie Coat is very fast drying extremely thin molecular based adhesion promoter for virtually every surface. Coval Tie Coat is corrosion, peel and flake resistant and designed to promote adhesion of paints, urethanes, varnishes and most liquid based coatings through molecular cross linking of the coating to the substrate its being applied to. No more need to rely on adhering to one another through mechanical abrasion. **NO MORE SANDING BETWEEN COATS REQUIRED!!**

SURFACE

Plastic car bumpers, rubber, glass, most plastics, hardwood floors, painted metal, stainless steel, aluminum, galvanized steel, powder coating, fiberglass, and more.

SOLUTION

Coval Tie Coat eliminates the need to sand or mechanically abrade substrates or coatings before applying any other type of coating over another. For example Coval Tie Coat allows coating polyurethanes over polyurethanes without the need to sand between coats.

CHARACTERISTICS

Color: Clear
Finish: Satin
Vehicle Type: Solvent Base
Flash Point: (C Penskey-Martens closed cup) -25C, 77F
VOC: less than 20 g/ltr
Weight per Gallon: 7.36 lb/gallon
Non-breathable

SPREAD RATE

Recommended Spread Rate per coat:

Wet mils: 1.0-1.5
Dry mils: 0.40-0.90

COVERAGE

Coverage: 900-1500 sq ft./gal (approximate) Coverage will vary depending on the porosity and texture of the substrate.

SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, and other foreign material using **Coval Step#1 Cleaner for painted surfaces**. Rinse with fresh water and dry completely.

APPLICATION INSTRUCTION

Test Area

Due to the wide variety coatings, substrates and the various methods of application and environments, always test Tie Coat in an inconspicuous location to ensure adhesion. (**Tie Coat will not bond to HDPP**).

Application

Tie Coat as with most finishes is best sprayed on to achieve optimum smooth finish. With all methods of application, always mask off any adjacent surfaces to keep them free of drips or accidental coating. Tie Coat should be sprayed, however if the project configuration and location doesn't allow for spraying you

can as an alternative also brush using a fine Chinese bristle brush or roll on with a high density ultra smooth foam roller. This type of alternate application will not yield the same spread coverage and will not typically give you the optimum smooth finish as spraying would. 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.

Coval Tie Coat is a very fast drying adhesion promoter. It requires the coating you're applying over the Tie Coat to be applied within one minute and no longer than 10 minutes. If you cannot apply within this time period you must re-apply the Tie Coat, once Tie coat is too dry the coating you are applying over it will not bond. Staging is very important so you are ready to apply the Tie Coat then immediately be able to follow up with your final coat. On large applications it's best to have two applicators, one applying the Tie Coat and one following up behind applying whatever the final coat is.

Spraying

Shake the contents thoroughly to re-suspend the nano particles. When surface preparation is complete and surface is dry and free of dust, begin application using a high volume, low pressure (HVLP) spray gun with a 1.0 size tip and the pressure set at approximately 25 psi. On a separate piece of cardboard first spray a test pattern to achieve a 6" to 8" elongated pattern approximately 1 1/2" wide in the middle and fluid enough to cover but not puddle. If there is high wind, this will affect the quality of the finish as blowing wind can disrupt the spray pattern from your HVLP. It can also contribute to contamination of the coating with blowing dust. It may be necessary to erect a windscreen to protect the area. Once the spray pattern is achieved on the test cardboard, spray one coat in a cross-pattern; left to right, then up and down. This will provide sufficient coverage and will help prevent holes in coverage. To spray small pieces or tight locations you can use a "Preval" sprayer. This is a small disposable sprayer that can spray any liquid and holds approximately 6 oz, which is ideal for touch ups as well. Available in the paint department of major home improvement stores, or major paint store chains. **Apply your final coat over the Tie Coat within 10 minutes or the final coat will not bond.**

CAUTION: If using spray application method in an enclosed space, make certain to tent off the area being sprayed with plastic tarps to avoid spray dust from traveling and contaminating other surfaces with overspray dust. Tented and enclosed areas always require to be positively supplied with fresh air and have ventilated exhaust to outside using fans. Never spray near any open flame or any possible source of ignition such as pilot light, or anything that may spark, as this may cause ignition and explosion of the fumes and vapors.

Rolling

Make certain the surface is clean per preparation instructions. Shake the contents thoroughly to re-suspend the nano particles that have settled to the bottom. Using a white, ultra smooth high-density foam roller (available at most major home improvement stores), pour the Tie Coat into a roller pan and completely saturate the roller. Apply in a cross-pattern; left to right, then up and down as quickly as possible as the coating dries fast, it also gives a better looking finish if you avoid down pressure on the roller. **Apply your final coat over the Tie Coat within 10 minutes or the final coat will not bond.**

Brushing

Make certain the surface is clean per preparation instructions. Shake the contents thoroughly to re-suspend the nano particles that have settled to the bottom. Select the appropriate size brush width based on the surface area being coated.

Using only a good quality China bristle brush, apply Tie Coat in a cross-pattern; up and down, then left and right. To obtain the best results, do not overwork the coating as it dries fairly quickly. Do not bear down with the brush. Use light strokes using the tip of the brush to smooth out the coating. Desired wet film thickness (WFT) is approximately 1.0 to 1.5mils.

DRY TIME

Drying Time (@ 77 F, 50% RH):

Drying time is Temperature, humidity and film thickness dependent. (The higher the humidity the faster the dry time)

Touch: 1 minute.

Through: 15 minutes.

Make certain to apply whatever coating that is going over the Tie Coat within 1-10 minutes or bond will not occur.

INTERRUPTION OF WORK

Upon drying, treated surfaces may appear similar to untreated surfaces. It is possible areas could remain untreated if work is interrupted. It is advisable to stop application on a corner joint or any other obvious marker so the applicator can begin where the application had previously ceased, blue tape is a good choice. When re-starting you can apply over the dry edge and continue on, no need to sand.

CLEAN UP

Clean tools and flush equipment immediately after application is completed with acetone thoroughly before product dries. (Important, once coating is dry the tools will not clean up with acetone or any other solvent)

CAUTION

Always wear OSHA approved 1910.134 and ANSI Z88 2 Respiratory protection. Fresh air and exhaust are required in the work area. If inhaled, remove affected person to fresh air. 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.