TROUBLESHOOTING

ISSUES WITH CONCRETE COATINGS

Below you will find several issues that can commonly be associated with concrete coatings and common causes for the those issues. You will also see tips and advice that, in most cases, will help resolve these problems. For more information on what you can do you remedy coating trouble, call your supplier or Surface Koatings, Inc. directly.

AIR BUBBLES IN THE COATING

OUTGASSING: Air that is trapped in the coating's surface that had escaped the coating's porous surface.
AIR MOVEMENT: Excess air from one of many types of sources that may cause quick, flash drying, preventing air release.
TEMPERATURE/HUMIDITY: Extreme heat and humidity can cause rapid drying times causing air entrapment.
DIRECT SUNLIGHT: Exposure to direct sunlight may result in quickly tacking and forming air bubbles.
IMPROPER MIXING: Very fast or improper mixing may result in air entrapment into coating.
ROLLER COVER: Using a roller cover with a too long or too short nap may generate bubbles into the coating.
MOISTURE: Moisture in the air and/or concrete may result in the formation of bubbles into the coating.

PROBABLE SOLUTION

In most cases, when using a solvent based acrylic sealer, these issues can be resolved by rolling the affected area with a raw solvent, such as Xylene, or SurfKoat's high performance solvent blend Surface Aid. This action will emulsify the resin in the sealer and allow the air and/or moisture to escape as the sealer dries again. Note that a light sanding or screening may be necessary for water based acrylic sealers and high performance coatings.

EXCESSIVE WEAR OF COATING

SOFT SUBSTRATE: Applying coatings to poor concrete substrates may result in the excessive wear of the coating.
IMPROPER MAINTENANCE: Poor maintenance habits may result in the minimal use but excessive wear of a coating.

PROBABLE SOLUTION

For soft substrates the application of a topical cementious overlay prior to coating may be necessary. Maintaining a coating or a floor wax over an interior coating will help to prolong the life of a coating.

FISH EYES IN THE COATING

CONTAMINANTS-SILICONE: Silicone deposits from welding or spraying practices may result in fish eyes.
CONTAMINANTS-OILS: Grease and oil on the floor may force the coating function improperly resulting in fish eye effects.

PROBABLE SOLUTION

In many cases this may be hard to overcome. Start by stripping, sanding, shot blasting and/or grinding the affected areas back to bare concrete. The use of an industrial strength degreaser may be helpful to remove contaminants from the substrate. After thoroughly cleaning the area, reapply the coating.

DISCOLORED WHITE SPOTTING

ENTRAPPED SOLVENT: Solvent entrapment may result in discoloration or white spots.
LAITANCE/CONTAMINANTS: Alkaline salts or residues not removed prior to coating may result in discoloration.
MOISTURE/HUMIDITY: Moisture content or humidity may result in discoloration of some coatings.

PROBABLE SOLUTION

Always thoroughly clean all substrates prior to coating application. In most cases, when using a solvent based acrylic sealer, these issues can be resolved by rolling the affected area with a raw solvent, such as Xylene, or SurfKoat's high performance solvent blend Surface Aid. This action will emulsify the resin in the sealer and allow the air and/or moisture to escape as the sealer dries again. Note that sanding, screening or stripping may be necessary for water based acrylic sealers and high performance coatings.

COLOR & PIGMENT FLOODING

IMPROPER MIXING: Improperly mixing a colored coating may result in unsightly streaking or flooding of pigments.
OVER TINTING: The addition of too much pigment into a coating may result in color floating.

PROBABLE SOLUTION

Always thoroughly mixed tinted coatings with a high speed drill equiped with a squirrel mixer. Always mix the recommended amount of pigment into a coating. If additional color is necessary, add small amounts at a time. Always test for color acceptance prior to application.

TROUBLESHOOTING

ISSUES WITH CONCRETE COATINGS CONTINUED

SHADING/COLOR DIFFERENCES

MATERIAL SETTLING: If a material is allowed to settle, not scraping and mixing well may result in color shading.
DISCOLORATION OR SPOTTING: Chemical attacks to coatings may allow spotting or discolorations in isolated areas.
UV EXPOSURE: Exposure to sunlight or UV rays may result in the fading of the coating.
BATCH VARIATIONS: Batches may show variations batch to batch.

PROBABLE SOLUTION

Always thoroughly mixed tinted coatings with a high speed drill equiped with a squirrel mixer. Always thoroughly clean all substrates prior to coating application. Use only UV stable, exterior application approved coatings outdoors as well as areas where prolonged sun exposure may be possible. Always check batch numbers and use materials from the same batch on the same floor whenever possible. Using control joints as stopping and starting places may make color variations less noticeable.

WRINKLING OF COATING

TOO HEAVY APPLICATION: When heavily applied, some coatings may wrinkle after drying.
SOLVENT ATTACK: Some coatings are too chemically reactive to simply re-coat, resulting in wrinkling like effects.

PROBABLE SOLUTION

Always apply coatings at suggested coverage rate. Always read tech data and instructions prior to all coats. If wrinkling occurs, when using a solvent based acrylic sealer, this can be resolved by rolling the affected area with a raw solvent, such as Xylene, or SurfKoat's high performance solvent blend Surface Aid. Note that sanding, screening or stripping may be necessary for water based acrylic sealers and high performance coatings.

DE-LAMINATION OR PEELING

IMPROPER CLEANING: Coatings will not properly adhere to oily, greasy, or contaminated surfaces resulting in peeling.
VISCUS COATING: Heavy, high solids coatings applied to an unprimed surface may result in de-lamination.
IMPROPER ETCH: Substrates that are not properly etched or "opened" may not ensure proper adhesion.
EXCESS MOISTURE: High levels of moisture can form pressure between the substrate and coating causing de-lamination.
INTERCOAT ADHESION: Incompatible and improperly applied coatings may de-laminate between coats.

PROBABLE SOLUTION

Always thoroughly clean and prep substrates prior to applying all coatings. Read all application, priming and re-coat instructions prior to applying coatings. Using a moisture meter and/or simple moisture test will help determine if moisture may cause trouble prior to application. Note that sanding, screening or stripping may be necessary if de-lamination or peeling does occur in acrylic sealers and high performance coatings.

DULL FINISH

POOR VENTILATION: When proper ventilation is not achieved, solvent may trap in the coating diminishing the gloss.
RECOATING TOO FAST: Re-coating too fast may result in a dulling finish.
ANTI-SLIP ADDITIVES: The addition of anti-slip additives such as Surf-Grip may dull the finish of coatings.

PROBABLE SOLUTION

Always use proper ventilation when using concrete coatings. Read technical data prior to application for recoat times and apply within those parameters. Anti-slip additives are necessary for some applications but cut down the gloss finish of a coating. If a gloss finish is desired in an application that anti-slip additives are necessary, use only the amount of anti-slip that is absolutely necessary for needed grip to reduce the amount of lost gloss.

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