ZEN-TEK COATING

TECHNICAL DATA SHEET

ZENIX SYSTEM 300

NON-ISOCYANATE HIGH PERFORMANCE ACRYLIC TOPCOAT SYSTEM (16HR CURE)

ZENIX is a state of the art two-pack 16 hour cure non-isocyanate acrylic topcoat system formulated from a synergistic combination of resins and pigments to provide excellent chemical resistance, durability, and aesthetics. Safer to use than traditional urethane systems with reduced chemical sensitization and genotoxicity. The product displays a fast lacquer-like drying characteristic with fast surface hardness, excellent adhesion, and superior color retention. Designed for novice sprayers - virtually no learning curve.

USES

Designed for professional refinishers and MRO markets for refinishing bathtubs, shower stall, porcelain, ceramic tile, countertops and backsplashes and materials made of porcelain, ceramic, steel, aluminum, fiberglass, acrylic, laminate, wood, vinyl and more.

MIXING: 2:1 RATIO

Reduce 10-20% by volume with any Zen-Tek Reducer Part C for Zenix 300 or Synergy 200

PRECAUTIONS

PLEASE READ CAREFULLY BEFORE STARTING PROCEDURE

APPLICATION

Use HVLP Spray System producing 5-10 PSI (air cap) with 1.3 or 1.4mm Fluid set. Apply 1 tack coat, plus 2 medium wet coats, developing 3.0 mils DFT

APPLICATION

Theoretical Coverage:
960 sqft @ 1 mil DFT

Application Rate:
320 sqft @ 3 mils DFT

PRODUCT DATA

Water cured in 16 hrs

Light Buffing 8-12hrs

READ MORE FOR:

- FIXING RUNS & SAGS
- EQUIPTMENT
- SURFACE PREP
- TEMPERATURE
- CLEAN UP
- SAFETY

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SURFACE PREPARATION:

The key to a successful coating application is excellent surface preparation. In addition, the substrate should be structurally sound, clean, and devoid of surface contaminants for maximum adhesion. Remove all traces of silicone caulk, soap residue, oil, grease, curing agents, release compounds, mold, or mildew. This should be done prior to sanding or surface profiling.

For Substrates and bathtubs made of porcelain, enameled steel, and ceramic: Surfaces should be acid etched or micro/nano etched with an acid bearing compound or equivalent to create “tooth”. Surface should then be neutralized and rinsed thoroughly. Then sand surface with “Scotch Brite” pad or 80-220 grit sandpaper. Do Not over etch. If powdering occurs during etching, all powder residue must be remove by sanding. A final rinse with a solvent based cleaner like (acetone or denatured alcohol) should be completed as well.

Silane Based Bonding Agents:

If acid etching is not possible or desired or if surface is smooth and glass like and made of porcelain or ceramic, one can use a silane based bonding agent in lieu of acid etching. However, surface must be impeccably clean in order to accept bonding agent. Please refer to bonding agent directions. **Please note the Zenix 300 is a non-isocyanate acrylic coating systems and should not be used directly over a silane based bonding primer.** You must apply an epoxy primer like Prime-X polyamide epoxy as an intermediary coat. Please contact Zen-Tek Coatings for technical assistance.

For non-porcelain substrates and bathtubs like fiberglass, acrylic, wood, laminate etc:

Clean surface, then, sand with 80-220 grit sandpaper. In most cases a final scratch pattern of 180-220 grit is preferable. A final rinse with a solvent based cleaner like (acetone or denatured alcohol) should be completed as well.

For Previously refinished bathtubs or substrates:

Clean surface thoroughly. Perform a “Cross Hatch Adhesion Test” or “Solvent Test” with acetone or lacquer thinner to determine soundness. If existing coating passes test – it may be sufficient to sand surface with just 80-200 grit sandpaper prior to priming.

If existing coating fails Cross Hatch Adhesion Test, mechanically or chemically strip surface and redo preparation and cleaning steps.

Always prime surface with Zen-Tek Prime-X polyamide based epoxy primer when going over a coated surface that has been sanded.

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USES:

Zenix Non-Isocyanate High Performance Acrylic Topcoat System is ideally suited for high performance applications in refinishing and reglazing bathtubs, shower stalls, countertops, ceramic tile, fiberglass, acrylic, cast iron, porcelain, wood, laminate, vinyl, polyester/cultured marble, aluminum, or pressed steel surfaces. Perfect use for the MRO (Maintanance Repair Operations) industry.

APPLICATION:

The preferred method of application is spraying through HVLP or air assisted airless. Coating thickness or dry film thickness (DFT) is determined by substrate application. In most situations developing 2.5 - 3.5 mils dry film thickness (DFT) of coating is recommended. Nominal DFT is 3.0 mils. Theoretical Coverage at 960 Sq. Ft. @ 1 mil DFT. Application Rate 320 Sq. Ft. @ 3 mils DFT. HVLP with 1.4 mm, one-tack coat, plus two medium wet coats.

Recommended application for most conditions is a 3 coat process.

1. Apply a tack coat and allow 5 - 7 minutes for flashout.

2. Apply a medium build coat for coverage. Wait 7 - 10 minutes for flashout.

3. Apply a second build coat.

- If an additional coat (3rd build coat) is required for build or appearance, wait 10 minutes for flashout to avoid solvent popping.
- Do Not air dry between coats to prevent solvent popping.
- Always start with thin coats and apply heavier coats.

For problem areas, spot coating is permissible, but its usually best achieved with a primer rather than topcoat. If necessary, apply as an additional coat and wait 8 - 10 minutes between coats.
Consult with spray equipment manufacturer's instructions for proper set up and procedure.

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MIXING: 2:1 MIX RATIO

PRODUCT SHOULD BE STORED OR USED AT ROOM TEMPERATURE (65 - 77°F) PRIOR TO USE. Zenix Non-Isocyanate High Performance Acrylic Topcoat System Part A, is designed to be used at a ratio of 2 parts ZENIX Resin Part A to 1 part ZENIX Catalyst Part B. Stir together for approximately 1 minute to ensure both parts create a homogenous mixture. Reduce 10-20% by volume using Zen-Tek Reducer Part C (Low Odor Slow or Med-Fast).

To spray a standard 5' bathtub with a HVLP sprayer with 1.4mm fluid set, mix the following: (12oz of resin, 6 oz catalyst, to 2 - 4 oz of reducer Part C) or as required by particular spray equipment.

EQUIPTMENT:

For HVLP sprayers, the fluid set should be 0.040"- 0.050" or 1.2 mm to 1.4mm. The Pressure should be 5 - 10 psi at the aircap. Consult with spray equipment manufacturer's instructions for proper set up and procedure.

Brushing and rolling applications require special rollers 3/16', 1/4" or 3/8" NAP mohair rollers with solvent resistive cores. Please contact Zen-Tek Technical Service for instructions as reducer should not be used. A Retarder is highly recommended.

For American Turbine use a 1.4mm Fluid set. For Graco, Titan, Wagner use 1.3mm or #3 fluid set. Zen-Tek does not recommend the use of multi-hole air caps or 0.05" air caps. Contact technical assistance for assistance.

Air-assisted sprayers may be used for higher output for larger areas. Slower reducers may be required for proper application. See respective manufacturer for assistance.

TEMPERATURE:

Substrate temperature must remain 10°F above the dew point during application to avoid blushing and for 24 hours after application. Not recommended for substrate temperatures below 50°F and above 105°F.

Material can be warmed up prior to use by placing containers in warm water and shaking vigorously before use. Use of a non-contact laser thermometer is useful as a guideline to material temperature.

CLEAN UP:

Clean tools and spray equipment with acetone or lacquer thinner. It is highly recommended that a spray gun be broken down and disassembled after use when cleaning. If cleaning spray gun in a cleaning solution, disassemble still recommended.

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FIXING RUNS AND SAGS:

To prevent runs or sags, follow 3 coat process. Wait for flashouts between coats. Use proper speed reducer and do not over-reduce material.

Tips:

- Spray tub corners with a horizontal fan pattern top to bottom and wet in corners with a vertical pattern left to right.
- **In the event of a run or sag, act immediately.** Use 1 ½ blue tape and roll it onto itself. Then carefully blot defect and remove excess material. Use a new area of tape for each blot. In most case 3 - 4 blots is enough. For larger mistakes 5 - 8 blots may be necessary. Once done, spray 1 or 2 coats over area to re-wet it and blend it out. Wait 7 minutes between each coat. Do Not Air Dry. Then continue with refini shing process as usual.

PRECAUTIONS:

In general, avoid application if surface temperature falls below 50°F or when dew is present on the subject surface. Product may be recoated by itself anytime. Keep the product from freezing. Keep out of reach of children. Refer to the Safety Data Sheet (SDS) of this product for complete health and safety information. The suitability and or functionality of this product is the direct and sole responsibility of the license design professional, applicator and or installer of this product.

SAFETY:

This product is for professional use only by trained personnel. Extreme caution should be used when handling this material. Use of safety equipment, such as, a Supplied Air Respirator is recommended. At minimum, one should use a full face respirator with organic vapor cartridges and N95 pre-filters.

In addition, adequate air circulation and air exchange must be maintained. Follow NIOSH and OSHA guidelines for air exchange. The use of a spark resistive, high velocity air mover or fume exhauster is necessary to reduce solvent exposure. Since all work areas vary in size, create a negative pressure area and use an exhauster than can exchange air at least 20 times per hour.

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PRODUCT DATA:

PROPERTY	ACTUAL VALUE	TEST METHOD
Density (Resin Part A)	8.0-10.4 lbs/gal	ASTM D-792
Density (Curative Part B)	7.5 lbs/gal	ASTM D-792
Gloss (60°)	92 ± 4	ASTM D-523
Mixed Viscosity	20-25 secs Zahn cup #4	ASTM D4212
Fineness of Grind (Hegman)	7	ASTM D-1210
Color	White and tints	ASTM E-1347
Dry Time Dust Free	Less than 10 minutes	ASTM D-1640
Re-Coat Time	2 hours	ASTM D-1640
Pencil Hardness	4H	ASTM D-3363
Material VOC (g/L)(lbs/gal)	340 g/L (4.45 lbs/gal)	ASTM D-5201

SPECIFICATIONS	DRY TIME
Pot Life - Up to 4 hours	Flash-Off Time Betweeen Coats - 5 to 10 minutes at 77 degrees F / 25 degrees C
Dust Free - Less than 10 minutes at 77 degrees F / 25 degrees C	Infrared Baking Full Cure - 100 minutes at 140 degrees F / 60 degrees C
Light Buffing - 10 to 12 hours at 77 degrees F / 25 degrees C	Water Cured - 16 hours +/- 30 minutes

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