



# SYNERGY SYSTEM 200

## HIGH PERFORMANCE ACRYLIC URETHANE TOPCOAT SYSTEM (4 HOUR CURE)

**SYNERGY LOW ODOR ACRYLIC URETHANE TOPCOAT** is a superb two pack acrylic urethane topcoat formulated for bathtubs, ceramic tiles, laminates, cabinets, steel, fiberglass, aluminum, acrylic, porcelain, countertops, vinyl, wood, and cementitious surfaces. Synergy Low Odor Acrylic Urethane Topcoat will provide an unsurpassed durable water and stain resistant finish that will last for years and will withstand the difficult service exposure typical of bath and kitchen surfaces. The toughness and resiliency of this coating makes this a refinisher's best choice as demonstrated by its impact and abrasion resistance (4H) and highlighted by its water impermeability and tremendous resistance to most solvents and household cleaners. Moreover its rich high gloss (94 degrees) is unmatched in the industry.



### USES

Used for high performance applications for bathtubs, shower stalls, bathroom and kitchen wall tile, countertops and backsplashes.



### PRECAUTIONS

THIS PRODUCT CONTAINS ISOCYANATES AND LONG TERM EXPOSURE IS PROVEN TO BE CARCINOGENIC.



### APPLICATION

Theoretical Coverage at 960 Sq. Ft.  
@ 1 mil DFT  
Application Rate 320 Sq. Ft.  
@ 3 mils DFT



### APPLICATION

HVLP with 1.4 mm, one-tack coat, plus two medium wet coats.



### MIXING: 2:1 RATIO

Mix 2 parts SYNERGY resin Part A, 1 part Catalyst Part B, and reduce with Premium Low Oder Reducer Part C by volume 14% to 20%



### PRODUCT DATA

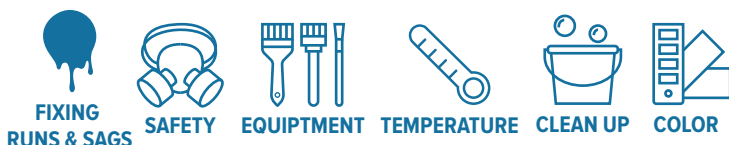
Dust Free - Less than 10 minutes at 77 degrees F / 25 degrees C

Flash-Off Time Between Coats - 5 to 10 minutes at 77 degrees F / 25 degrees C

Water Cured - 4 hours +/- 30 minutes

Light Buffing - 12 hours at 77 degrees F / 25 degrees C

## READ MORE FOR:





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**USES:**

Synergy Low Odor Acrylic Urethane Topcoat is ideally suited for high performance applications to Synergy Low Odor Acrylic Urethane Topcoat is ideally suited for high performance applications in refinishing and reglazing bathtubs, shower stalls, countertops, ceramic tile, fiberglass, acrylic, cast iron, or pressed steel surfaces. Perfect use for the MRO (Maintenance Repair Operations) industry.

Moreover, its fast 4 hour drying capability and compatibility with direct application over most bonding agents, easy color matching and its ability to be feathered easily and sprayed by airbrush; makes it the perfect chip repair material.

Surface preparation is one of main determinants for coating success. The surface must be dimensionally stable, dry, clean and free of oil, grease, and any other surface contaminants. Sand surfaces with 80-220 grit sandpaper for resinous surfaces (fiberglass or acrylic) or etch, nano-etch, or use approved bonding agent. For additional substrates please contact technical support.

**COLOR:**

Synergy Low Odor Acrylic Urethane Topcoat comes in White, Clear and in custom made to order colors: almond, bone, biscuit, black, and other custom colors available upon request.

**MIXING: 2:1 MIX RATIO**

**PRODUCT SHOULD BE STORED OR USED AT ROOM TEMPERATURE (65-70F) PRIOR TO USE.** Synergy Topcoat System is designed to be used at a ratio of 2 parts Synergy Resin (Part A) to 1 part Synergy Catalyst (Part B). Stir together for approximately 1 minute to ensure both parts create a homogenous mixture. Reduce between 20% to 25% with Zen-Tek Premium Low Odor Reducer (Part C).

To spray a standard 5' bathtub with a HVLP sprayer with 1.4mm fluid set, mix the following: (12 oz resin to 6 oz catalyst and 3 to 4.5 oz reducer) or as required by particular spray equipment.



# SYNERGY SYSTEM 200



## SURFACE PREPARATION:

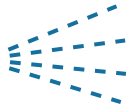
Adequate to superb adhesion to the underlying substrate is the first key to a coating's success. It is therefore imperative, that the surfaces to be coated with Synergy Low Odor Acrylic Urethane Topcoat must be structurally sound and clean if the desired results are to be achieved. The surface of the substrate should be dust-free and free of grease, oil, dirt, curing compounds, release agents, or any other surface or penetrated contaminants that will adversely affect bond.

Surfaces must remain dry and protected from all moisture until fully cured. For very porous to moderately porous substrates, a penetrating sealer/primer like (Prime-X high-build epoxy) would precede the application of the Synergy Low Odor Acrylic Urethane Topcoat (Part A). For plastic-like, glass-like, tile or ceramic type substrates that have very smooth non-porous surface profiles, an inter-coat bonding primer or agent would be required to provide "tooth" for the Synergy Low Odor Acrylic Urethane Topcoat. Suggested bonding agents are usually in the form of, our High Build Low Odor Primer, etchant primers, and or wash primers (particularly primers with Adhesion Promoters). **Please contact Zen-Tek Technical Department for recommended bonding agents.** For previously coated substrates, the adherent coating should not show any signs of failure or improper adhesion. If this is the case, chemical stripping and or power tool sanding would be the chosen method of removal. Total coating removal is required followed by the above surface profiling prior to application of Synergy Low Odor Acrylic Urethane Topcoat (Part A).

**Substrates of ceramic, porcelain, and enameled steel that are etched should also be neutralized and sanded with 80-220 grit sandpaper to remove any powdering. Sandable substrates like acrylic, fiberglass, or laminate should also be sanded with 80 - 220 grit sandpaper. A final solvent wipe (denatured alcohol or acetone) or equivalent should always be completed prior to application of primer or topcoats.**



# SYNERGY SYSTEM 200



## 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.

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.



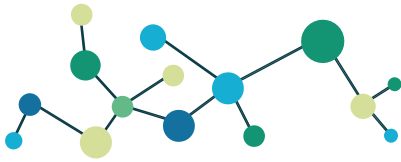
## FIXING RUNS AND SAGS:

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 refinishing process as usual.





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**EQUIPMENT:**

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 air cap. 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.

**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.

**PRECAUTIONS:**

In general, avoid application if surface temperature falls below 50 °F or when dew is present on the 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 professional applicator and or installer of this product.



## TECHNICAL DATA SHEET

# SYNERGY SYSTEM 200



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### SAFETY:

This product contains isocyanates and long term exposure is proven to be carcinogenic. This product is For Professional Use Only by trained personnel. Extreme caution should be used when handling this material. Use of safety protection, such as Supplied Air Respirator is Necessary, as isocyanates are not filterable by traditional organic vapor cartridges and N95 pre-filters.

The use of a spark resistive, high velocity air mover or fume exhauster must be used by technician when using this material to minimize solvent and isocyanate exposure. Zen-Tek recommends that you follow NIOSH or OSHA guidelines. Since all work areas vary in size, create a negative pressure area and use an exhauster that moves at least 1000CFM's / minute or exchanges the air in room at least 20 times per hour for a standard size 5'x8' bathroom.



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## PRODUCT DATA:

PROPERTY	ACTUAL VALUE	TEST METHOD
Density (Mixed Product)	8.1-10.5 lbs/gal	ASTM D-792
Gloss (60°)	94 ± 4	ASTM D-523
DOI (20°)	79 ± 4	ASTM D-523
Mixed Viscosity	20-25 secs Zahn cup #4	ASTM D-523
Fineness of Grind (Hegman)	7-8	ASTM D-1210
Color	Clear, White and Tints	ASTM E-1347
Dry Time to Touch	20 minutes	ASTM D-1640
Re-Coat Time	After 2 hours	ASTM D-1640
Pencil Hardness		ASTM D-3363
Material VOC (g/L-lbs/gal)	345 g/L-2.87 lbs/gal	ASTM D-5201

## FILL NAME HERE

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