



Product Information
Refinishing Coating
Spec. Sheet

Tub Potion #12 #13 #14 series catalyzed with TP-HP is a high-solids aliphatic two-component polyester-polyurethane coating. This coating is well suited for exterior and high UV exposure applications on porcelain, metal and acrylic surfaces. The Tub Potion series was formulated to meet strict air quality regulations, while increasing the application and performance benefits of conventional polyurethane coating. Tub Potion series high solids coating is available in a full selection of color and gloss, including metallic, Cardtex finish and clear.

BENEFITS:

High performance fast set 24 hour cure protective top coat for porcelain, enamel and acrylic surfaces. Provides a decorative and highly protective porcelain look to:

- Bathtubs
- Showers
- Fiberglass Acrylic Tubs
- Ceramic Tile

Meets VOC Regulations for EPA

Coatings: Low VOC – 2.8 lbs./gal
Very high gloss Excellent chemical and solvent resistance. UL approved for ceramic porcelain substrates. Available in a complete range of colors, glosses, textures and Cardtex, finishes . RoHS / WEEE compliant

CURED FILM PROPERTIES: Testing conducted on TubPotion #13 gloss white catalyzed with TP-HP at 1.5 mils DFT (Dry Film Thickness) over 20 gauge Bonderite 1000® test panels, cured 30 minutes at 180°F and air dried 14 days.

TEST	METHOD	PARAMETERS	RESULT
Adhesion	ASTM D3359	Cross-hatch tape	0% failure
Impact:	ASTM D2794	Direct Reverse	130 in. lbs. 60 in. lbs.
Flexibility:	ASTM D1737	1/8. mandrel	No cracking
Hardness	ASTM D3363	Pencil	H - 2H
Abrasion	ASTM D4060	CS-17 wheels, 1 kg, 1000 cycles	Less than 100 mg loss
Humidity	ASTM D2247	168 hrs.	No effect
Salt Spray	ASTM B117	1000 hrs. 95°, 5% salt solution	Less than 3/16. creep - along scribe, otherwise, no effect
UV Light	ASTM G53	1000 hrs.	90.3% gloss retention
Solvent Resistance	ASTM D4752	MEK 100 rubs IPA 200 rubs	No effect No effect
Chemical & Stain Resistance	ATSM D1308 30 min. spot A: No effect B: Slight dulling C: Moderate effect D: Discolored & softened	A – 0.1N HCl, 30 wt. motor oil, ammonia, butyl carbitol, butyl cellosolve, Cascade®, Clorox®, Coca Cola®, coffee, diethyl ether, Drano®, Fantastic®, fiber pen ink, floor stripper, gasoline, IPA, Ivory® Liquid, lanolin lotion, lemon juice, Snap®, Spic & Span®, tap water, vegetable oil, water base ink, WD-40®. B – ball point pen ink, carbon disulfide, correction fluid, Freon TF®, MEK, nail polish. C – Chloroform. D – Solvent base ink.	

TYPE: Aliphatic polyester polyurethane.

COMPONENTS: Two.

COLORS: Full range including metallic. **GLOSS:** High, semi and flat.
COVERAGE: At 1.0 mil DFT, 65% transfer efficiency (TE)
Mixed paint, 2.8 lbs./gal : 620 ft²/gal. Mixed paint, 3.5 lbs./gal : 520 ft²/gal. Calculation: 1604 ft²/gal x % volume solids x TE ÷ DFT
VOC MIXED: 340 grams/liter = 2.8 lbs./gal minimum.
420 grams/liter = 3.5 lbs. /gal minimum.

See mix ratio table below.

VOLUME SOLIDS:

Tub Potion #12 gloss base 53%

TP-HP 87%

Mixed to 2.8 lbs./gal 60%

Mixed to 3.5 lbs./gal 49%

FLASH POINT: 24°F TCC

SHELF LIFE: 1 year from date of manufacture in factory sealed container.

APPLICATION: After preparing the surface, thoroughly mix component 1 before adding catalyst. Mix only the amount of material needed. The base to catalyst proportion must be measured accurately, by volume only, to obtain optimum film properties.

Do not use reducers that contain water or alcohol; these react with the catalyst and can cause a variety of problems. Be aware of spray-able pot life. Brushing, rolling and dipping are not recommended.

APPLICATION CONDITIONS:

. Temperature – Apply coating within 55-100 F. . Relative Humidity – Not recommended applying in conditions greater than 85%. . Substrate temperature – 5 above the dew point and a minimum of 55 F.

If coating is not applied within these conditions then the cured coating properties may not be representative.

MIX RATIOS: Two components must be mixed properly to obtain coating performance. Thinning depends on applicator's regulatory VOC limits.

Parts are by volume	COLORS GLOSS	COLORS SEMI GLOSS	CLEAR ALL GLOSS
TP#12 base	4	5	4
TP-HP catalyst	1	1	1
TP- reducer for 340 gms/l	0	1/2	N/A
for 420 gms/l	1	1-1/2	1

VISCOSITY: Will vary depending on color and gloss at a given VOC. At 2.8 lbs./gal, most semi-gloss colors will be in the 25-30. #3 Zahn range. At 3.5 lbs./gal, 28-32. #2 Zahn can be expected for most colors. **SPRAY-able Pot Life:** 2-3 hrs. at 2.8 lbs. VOC/gal 4-5 hrs. at 3.5 lbs. VOC/gal

Note: If material is accelerated the actual pot life may vary depending on amount added. **RECOMMENDED DFT:** 1.5 – 2.5 mils (depending on color) **CURE:** Air Dry Force Dry * Tack free 2 hrs. 1 hr. at 120° F Dry to handle 24 hrs. 30 min at 140° F Dry hard 72 hrs. 15 min at 180° F (At 1.5 mils dry film thickness, 78° F, 50% RH)

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TubPotion Coatings and TP-HP Catalyst Series

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SURFACE PREPARATION AND PRIMING: The most important steps in a successful coating process are cleaning, pretreatment and priming. The following is a brief outline of some basics for unpainted substrates. It is not intended to be all-inclusive. For more information on your particular application contact TubPotion Labs.

Cleaning the substrate: All surfaces to be coated, must be free of dirt, grease, oil, oxidation, mill scale, and all other contaminants. The surface must be thoroughly dry before painting. Air quality regulations have limited the allowable emissions from cleaning operations.

Steel — A phosphate chemical conversion coating is highly recommended. When this is not possible, a vinyl acid wash pretreatment primer is recommended. UL approval on our product requires the minimum of a three stage iron phosphate pre-treatment.

Aluminum — A chemical conversion coating is highly recommended. When this is not possible, a vinyl acid wash pretreatment primer is recommended

Stainless Steel — Brush-off or blast clean per SSPC-SP 7 to a uniform profile of 1.5 mils. TubPotion # 8 surface preparation solution can help improve adhesion

Plastic — All mold release should be completely removed. TubPotion series polyester polyurethane is compatible with a variety of plastics.

PRODUCT LIMITATIONS:

- . Catalyst reacts with water. Air supply should be dry. Containers should be kept tightly closed. Use urethane grade thinners only.
- . Alcohols and glycols interfere with curing chemistry and should be avoided. They can be found in some lacquer thinners and certain synthetic reducers.
- . Optimum film properties are dependent upon proper mixing of paint and catalyst.

PRIMER SELECTION:

PRODUCT NO. TubPotion # 10

DESCRIPTION: Polyester polyurethane bonding primer

FUNCTION: Foundation base for protective top coats

Color: White

Corrosion resistance, some surfacing

RELATED PRODUCTS:

TubPotion #8 Silane coupling agent adhesion promoter highly recommended, adds extreme bonding to surface on a molecular level

PRODUCT NO. 1600-01 1600-02 1600-03

DESCRIPTION TP-1600 Series
Reducers

Thinners. Urethane grade. 1600-01, fast; 1600-02, medium; 1600-03, slow.

EL-005 Accelerator. Speeds up dry time (and shortens pot life).

J-3081 Surfactant. Helps eliminate blisters, bubbles, pin holes, solvent-pop.

P-5033 Surfactant. Helps eliminate craters and fish-eyes.

* Some Air quality regulations require a maximum temp. of 194° F to qualify as an .air dry. system which generally have higher VOC limits than baking systems.

APPLICATION EQUIPMENT: Most air quality regulations require the paint application transfer efficiency to be 65% or better. This generally means using electrostatic or high volume low pressure (HVLP) spray guns. Otherwise, conventional pressure feed, airless or air assisted airless spray equipment can be used. Air supply lines need water and oil traps.

EQUIPMENT CLEAN-UP: Clean up should be done as soon as possible keeping in mind the pot life of the mixed paint. Avoid leaving catalyzed paint in the lines. Air quality regulations have limited the allowable emissions from cleaning operations.

SAFETY: Refer to the product's Material Safety Data Sheet (MSDS) for complete safety information.

Contains organic solvents. Use with adequate ventilation. Do not breathe vapors or spray mists. If component TLVs are exceeded, a NIOSH approved air supplied respirator is advised. See MSDS for TLV information.

Contents are **FLAMMABLE**. Keep from heat, sparks or open flame.

Allergic reactions are possible. Avoid use by persons with respiratory problems.

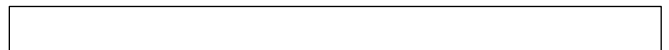
Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

FIRST AID:

Eye contact: flush immediately with plenty of water for at least 15 min. and get medical attention.

Skin contact: wash thoroughly with soap and water for 5 minutes.

If swallowed, do not induce vomiting and get medical attention immediately.



IMPORTANT: Warranty and Disclaimer — The performance characteristics of these products vary according to product application, operating conditions, materials applied to or with and use. Since these factors can affect results, we strongly recommend that you make your own test to determine to your satisfaction whether the product is of acceptable quality, has not been affected by storage or transport and is suitable for your particular purpose under your own operation conditions prior to using any product in full scale production. Seller warrants the products to be free from defects in materials and workmanship. **SUCH WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE.** No representative of ours has authority to waive or change this provision, which applies to all sales of these products.