TOP SHELF® EPOXY COMMERCIAL RESIN | TH

Low Moisture Readings? Save Money with a Traditional Hardener

When the MVER is low (up to 3 lbs.), **TOP SHELF® EPOXY COMMERCIAL RESIN | TH** is the economical choice. The 100% solids system has all the advantages of TOP SHELF® EPOXY, including high adhesion to concrete.

ADVANTAGES

- Meets USDA, FDA, EPA, and SCAQMD Standards
- Eligible for LEED Points: Made in California from Partially Recycled Materials
- Adhesion to Concrete, Wood, Metal, Non-glazed Tiles
- Anti-bacterial
- High Traffic and Impact Resistance
- Low Maintenance
- Low Odor
- Waterproofing

SUGGESTED USES AND APPLICATION AREAS

- Primer
- Slurry, Mortar, and Decorative Systems
- Industrial, Healthcare, Commercial, Government, Institutional, and Residential
- ADA Compliant Ramps

BUILT RIGHT SYSTEMS

- Color Chip
- Color Quartz
- Color Splash
- ESD (Static Control)
- Industrial Quartz
- Top Shelf® Metallic

For all BUILT RIGHT systems, visit www.gotopac.com/built-right-flooring

FINISH AND COLOR

- Gloss Clear or Opaque when Pigmented

PRECAUTIONS AND LIMITATIONS

- **UV Resistance:** Coating will amber over time. If color stability is important, use UV-stable Urethane Polymer Concrete RC UV, Polyurethane, Polyaspartic, or Acrylic Sealer.
- **Prime Coat:** A prime coat may be required if stem walls are highly absorbent, if outgassing is suspected or prevalent, or if concrete is very porous or in poor condition. All concrete repairs must be completed before installing any system.
- DO NOT apply single coat greater than 1/16" (25 sf/gal).
- DO NOT let material puddle on floor. This may cause white spots to appear when coating cures.
- Complete samples and onsite mockups to ensure desired results are achieved.
- **Application temperatures:** When temperatures increase, material cures faster. Material cures slower when temperatures decrease.
- Application times are based on test results compiled by lab technicians in a controlled setting. All times recorded using 1-quart samples. All Top Shelf® hardeners were combined with A-Resin.

- If application temperatures are outside of those recommended, contact your Technical Representative.
- Coverage rates are for estimating purposes only. Factors such as waste, unusual/abnormal substrate conditions, and other unforeseen jobsite conditions may affect actual product yields and are the responsibility of the installer.
- Apply material when temperature is decreasing. DO NOT apply under direct sunlight. DO NOT install under inclement weather conditions.
- Recommended for Applicators level 3 and up.

COMPONENTS

Standard Kit

- Part A: Top Shelf® Epoxy Commercial Resin, 1 gal
- Part B: Top Shelf® Epoxy TH, 1/2 gal

Bulk Kit

- Part A: Top Shelf® Epoxy Commercial Resin, 2 gal
- Part B: Top Shelf® Epoxy TH, 1 gal

Larger kits may be available.

SAFETY, TESTING, AND WARRANTY

- Safety: Personal protective equipment and safety conditions must be considered before using any product. Review all relevant and current documentation including Safety Data Sheets.
- Testing: Before installation: Test and look for any unknown site conditions and/or defects. To ensure desired results are achieved, the system should be tested in a small area on site before full installation begins.
- Warranty: For warranty to be upheld, Pre- and Post-Job Checklists must be completed.

STORAGE AND APPLICATION TEMPERATURES

Ideal Storage Environment	Dry, Out of Direct Sunlight, 60-80°F
Material Temperature During Application	50-70°F and 5°F Above Dew Point
Minimum Substrate Temperature During Application	5°F Above Dew Point
Recommended Application Temperature	60-80°F, <90% RH

Average Application Time

Ambient Temperature	60-80°F, <90% RH	50°F, 50 % RH	70°F, 50 % RH	100°F, 50 % RH
Working Time	20-25 mins	20-25 min	25 min	20 min
Recoat Window	8-24 hrs.	16-36 hrs.	8-24 hrs.	6-24 hrs.
Return to Service (Foot Traffic)	24 hrs.	36 hrs.	24 hrs.	24 hrs.
Full Cure (Vehicle Traffic)	7 days	7 days	7 days	7 days

SURFACE PREPARATION

Before installing any coating, the substrate must be sound, meaning all necessary concrete repairs have been completed. It must be clean, dry, and free of any contaminates, moisture, materials, or particles that may hinder material's adhesion to the substrate. If applying directly over concrete, the substrate must be mechanically profiled to ICRI CSP 3. Different projects may require a different concrete surface profile. Adhere to International Concrete Repair Institute current standards.

MIXING AND APPLICATION

Standard Kit Mix Ratio	A:B = 2:1
Viscosity Reducer	1-2 qt per 1.5 gal
Top Shelf® Epoxy Colorant	16 oz per 1.5 gal
Anti-Slip Bead 50/100 (50/50 Blend)	16 oz per 1.5 gal
Anti-Slip AO 60/80 (50/50 Blend)	1 lb. per 1.5 gal
Anti-Slip 36 (ADA-Compliant Ramps)	Broadcast 1-2 lbs. per 10 SF.
20 or 30 Mesh Sand/Quartz	30 lbs. per 1.5 gal
16 Mesh Sand/Quartz	100 lbs. per 1.5 gal
Mixing Drill	low-RPM, low-torque drill with Jiffy double-bladed mixer
Mixing Directions	Mix A until color and consistency are uniform. Add B and continue to mix for 2 min.
Mixing Directions With Colorant	Mix A with colorant until color and consistency is uniform. Add B and continue to mix for 2 min.
Mixing Directions With Viscosity Reducer	Mix A with B for 1 minute. Add additive and continue to mix for 1 minute or until color and consistency is uniform.

Coverage Rates

Prime/Top Coat	300-400 SF/GAL
Base/Top Coat, 8-12 mils	133-200 SF/GAL
Base/Top Coat, 15-20 mils	80-106 SF/GAL
Base/Top Coat, 25-30 mils	53-64 SF/GAL
Base/Top Coat, 1/16"	25 SF/GAL
Cap Coat Over 1/4" Color Chip Broadcast	125-175 SF/GAL
Cap Coat Over F-Grade Or 30-Mesh Quartz/Sand Broadcast	115-150 SF/GAL
Self-Leveler With 30 lbs. F-Grade Or 30-Mesh Quartz, 1/8"	20-24 SF/GAL
Self-Leveler With 30 lbs. F-Grade Or 30-Mesh Quartz, 3/16"	17-20 SF/GAL
Trowel With 100 lbs. 16-Mesh Quartz, 1/4"	20 SF/GAL

Premeasure components to make sure you are using the correct mix ratio. Combine components according to mix instructions. Continue mixing until the coating's consistency is uniform. The coating must remain thoroughly mixed during the application.

Keep a wet edge while applying product. Wear spiked shoes when walking on material.

PROPERTIES WHEN FULLY CURED

PROPERTIES	TEST METHOD	TYPICAL VALUES
Abrasion Resistance	ASTM D4060	40 mg loss
Abrasion Resistance with Anti-Slip	ASTM D4060	24-30 mg
Adhesion Strength	ASTM D4541	400 psi, concrete failure
Adhesion Strength	ASTM D4541	400 psi, vinyl failure
Adhesion Strength	ASTM D4541	500 psi, natural quartz failure
Adhesion Strength	ASTM D4541	450 psi, color quartz failure
Compressive Strength	ASTM D695	13,700 psi
Flame Spread/Critical Flux	ASTM E648	Class 1
Flame Spread/Rate of Burning	ASTM D635	Self-extinguishing

Flexural Strength	ASTM D790	9,000 psi
Hardness (Shore D)	ASTM D2240	85
Impact Resistance	ASTM D2794	120 in-lbs.
Indoor Air Quality	CA 01350	Compliant
Microbial Resistance	ASTM G21	Passes, 0 growth
Modulus of Elasticity	ASTM D790	5.0 x 10^5 psi
Moisture Vapor Permeance	ASTM E96	0.08 perms
Tensile Elongation at Break	ASTM D638	5%
Tensile Strength	ASTM D638	7,800 psi
Thermal Coefficient of Linear Expansion	ASTM D696	18.0 x 10^(-)6 in/in/°F
Water Absorption	ASTM D570	<0.05%
Moisture Vapor Emission Rate	ASTM F1869	<3 lbs.
Relative Humidity	ASTM F2170	<80%

CHEMICAL AND STAIN RESISTANCE

1 = Best for chemical resistance: Chemical has no adverse effects on fully cured coating; remove within 24 hours.
2 = Low potential for stain: Chemical has no adverse effects on fully cured coating if removed within 24 hours.
3 = High potential for stain or degradation: Chemical must be removed within 24 hours of exposure.
NR = Not recommended

Acetic Acid (Component of Vinegar), 10% 1
Acetic Acid, 30% 2
Acetone ..... NR
Ammonia, 30% 1
Ammonium Hydroxide, 30% 1
Antifreeze (Coolant) 1
Benzene (Component of Crude Oil) 3
Benzyl Alcohol 3
Betadine, 11% ..... NR
Boric Acid, 4% 1
Brake Fluid, DOT 3 1
Chromic Acid, 10% 3
Chromic Acid, 30% 3
Citric Acid, 30% 1
Ethanol, 95% ..... NR
Ethyl Acetate, 99% (Food/Beverage Facility) ..... NR
Formaldehyde, 37% 3
Premium Gasoline 1
Hydraulic Fluids
(Machinery, Automobile, Aviation) 2
Hydrochloric Acid, 10% 3
Hydrochloric Acid, 30% 3
Hydrofluoric Acid, 10% 1
Hydrofluoric Acid, 30% 3
Hydrogen Peroxide, 10% ..... NR
Hydrogen Peroxide, 50% ..... NR
Iodine, 2% 3
Isopropyl Alcohol 3
Jet Fuel 1
Lactic Acid, 30% (Dairy Facility) ..... NR
Lime Juice 2
Magnesium Hydroxide 1
MEK (Methyl Ethyl Ketone) ..... NR
Methanol ..... NR
Methylene Chloride ..... NR
MIBK (Methyl Isobutyl Ketone) ..... NR
Mineral Oil 1
Motor Oil, SAE 30 1
Mineral Spirits ..... NR
Mustard, Yellow 2
Nitric Acid, 30% ..... NR
Oleic Acid 1
Oxalic Acid, 10% 1
Phosphoric Acid, 20% 3
Potassium Hydroxide, 30%
(Alkaline Batteries, Soap Manufacturing) 1
Propylene Glycol 1
Silver Nitrate, 20% (Photo Labs) 3
Hydraulic Fluid (Aviation), Skydrol LD-4 2
Sodium Chloride, 20% 1
Sodium Hydroxide (Caustic Soda), 50% 1
Sodium Hypochlorite (Bleach), 10% 2
Sodium Hypochlorite (Bleach), 30% 3
Sodium Persulfate
(Bleaching and Oxidizing Agent) 3
Sulfuric Acid, 37% (Battery Acid) ..... NR
Tannic Acid, 20% 3
Tartaric Acid, 10% 1
Transmission Fluid 1
Urine, Dog or Cat 1
Urea (Nitrogen-Rich Fertilizer) 1
Vinegar, Distilled 1

Water (Hard Water from Well) 1	Wine, Cabernet Sauvignon 2
Whisky 1	Xylene 3

Pigments or colorants may affect working times, reduce chemical resistance, or increase potential for stain. Coatings tested at ambient temperature over 1-3 days' exposure to chemical. To ensure desired results are achieved, products should be tested on site before installation.

DISCLAIMER: The information contained in this document is intended for use by BUILT RIGHT-qualified and -trained professionals. This is not a legally binding document and does not release the specifier from their responsibility to apply materials correctly under the specific conditions of the construction site and the intended results of the construction process. The most current valid standards for testing and installation, acknowledged rules of technology, as well as BUILT RIGHT technical guidelines must always be adhered to. The steps given in this document and other mentioned documents are critical to the success of your project.