



PERM-EPOX™ HT

EPOXY RESURFACER: AIR DRY

SERIES E805

TWO-COMPONENT, CHEMICAL RESISTANT COATING



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DESCRIPTION

Perm-Epoxy™ HT is a resurfacing system designed for Hand Trowel repair of deteriorated or non-level concrete floors. This epoxy and blended aggregate combination forms a hard, dense surface with excellent durability to traffic and mild chemical exposure. See the Chemical Resistance Chart for exposure limits to determine the suitability of this product for your application.

OUTSTANDING FEATURES/BENEFITS

- Resists a variety of mild chemicals, acids, and solvents
- Can be applied to any depth (see Limitations)
- Fast-setting resins reduce downtime
- Eliminates shrinkage
- High compressive strength
- Low VOC
- USDA approved

TYPICAL USES

Designed for interior or exterior use on concrete and steel floors in warehouses, production floors, aisles, spalled concrete, ramps and areas subject to mild chemical spillage. It is also used for forming pump bases and trenches.

NOTICE

Before using this product, read all warnings, limitations and safety information printed on the product label, Safety Data Sheet (MSDS), and Technical Data Sheet.

LIMITATIONS

- Do not apply at surface or air temperatures below 50°F.
- Temperatures above 90°F may greatly reduce pot life and working time.
- Not recommended for constant immersion in water or fluids over 160°F, or where there is constant immersion or exposure to ketones, chlorinated solvents, and concentrated oxidizing mineral or organic acids (see attached Chemical Resistance List).
- For exposure to acids or other chemicals rated less than a 5 (on the attached Chemical Resistance List), contact your Sandstrom representative for an appropriate topcoat recommendation.
- Apply to a maximum depth of 1.0 inch per application or an exothermic reaction may occur, creating air pockets within the finished coating, which reduces performance. For depths greater than 1", obtain through multiple applications, allowing each layer to dry before applying the next coat.

COMPOSITION AND PHYSICAL PROPERTIES

Net Weight per unit	44 lbs.	Vehicle	Epoxy/Polyamine
Weight Solids (A+B)	>99.0% (Theoretical)	Color	Gray
Volume Solids (A+B)	>99.0% (Theoretical)	Color Stability	<i>Exterior: Fair Interior: Good</i>
VOC	0.002 lbs./gal (0.24 g/L) (Theoretical)	Finish	Nonskid
Odor	Ammonia-like	Gloss	Not applicable
Mix Ratio	4 Component A to 1 Component B by volume (plus Aggregate)	Thinner	Not recommended
Shelf Life	Indefinite in unopened containers	Induction Period	None required
Storage Conditions	40°F - 100°F	Pot Life	40 minutes @ 70°F
Freeze/Thaw Stability	Good	Drying Time:	@77°F ± 5°F; ≤ 70% relative humidity
Flash Point	<i>Component A: 180°F Component B: 305°F</i>	<i>Tack Free</i>	6 - 8 hours
Primer	BOND 'N' SEAL (recommended)	<i>Foot Traffic</i>	12 hours
Coverage Rate*	20 sq. ft. (0.45 cu ft.) @ 1/4" depth	<i>Forklift Traffic</i>	24 hours
Coating Depth	1/4" - 1"	<i>Complete Cure</i>	7 days

*Actual figures do not include spray loss. Also allow for surface irregularities and porosity, as well as material loss when mixing.

IMPORTANT NOTICE TO BUYER / WARRANTY AND LIMITATIONS ON OUR LIABILITY

We warrant our products to be free of manufacturing defects and that they meet our current published physical properties and specifications. All information and suggestions presented are rendered gratis and are accurate to the best of our knowledge. They are based on technical data we believe to be reliable and are intended for use by persons having skill and "know-how" at their own discretion and risk. Prior to use, customers are cautioned to determine the suitability of our products for any given application through their own testing. NO WARRANTY IS MADE, EXPRESS OR IMPLIED, REGARDING SUCH INFORMATION, THE DATA ON WHICH IT IS BASED OR THE RESULTS OBTAINED FROM ITS USE OR THAT OUR PRODUCT SHALL BE MERCHANTABILITY OR FIT FOR ANY PARTICULAR PURPOSE. SUCH STATEMENTS ARE NOT INTENDED TO SUGGEST INFRINGEMENT OF ANY PATENT. Since conditions of use of our products are beyond our control, all suggestions and statements are made without guarantee, warranty or other responsibility, express or implied, on our part. We assume no responsibility for results obtained, or damages incurred, from their use beyond replacing material proved to be defective or refunding the purchase price of such material at our option. Acceptance of delivery of our product means you have accepted the terms of this warranty, whether or not purchase orders or other documents state terms that vary from this warning. No seller is authorized to make any representations or warranty or assume any other liability on our behalf with any sales of our products. SANDSTROM PRODUCTS COMPANY

PERFORMANCE AND FUNCTIONAL PROPERTIES	
Chemical/Fluid Resistance	Excellent – See Chemical Resistance List below
Hardness ASTM D2240	>75 Shore D
Strength:	<i>Compressive</i> 15,600 psi
	<i>Tensile</i> 2100 psi
	<i>Flexural</i> 4500 psi
Temperature Resistance	Dry: 160°F

CHEMICAL RESISTANCE LIST

TEST REAGENTS:

ALKALINE

Ammonium Hydroxide 05%	5
Ammonium Hydroxide 20%	5
Caustic Soda (NaOH 10%)	5
Caustic Soda (NaOH 20%)	5
Caustic Soda (NaOH 30%)	5
Aniline	4
Triethanolamine	5
Urea	5

HOUSEHOLD PRODUCTS

Beer	5
Grape Juice	5
Lard	5
Lemon Juice	5
Mayonnaise	5
Milk	5
Mustard	5
Sodium Chloride (Sat.)	5
Sodium Bicarbonate (Baking Soda)	5
Sugar (Sat.)	5
Tide 5%	5
Tomato Juice	5
Vegetable Oil	5
Vinegar	5
Water	5
Wine	4

INORGANIC ACIDS

Chromic Acid 10%	3
Chromic Acid 20%	2
Hydrochloric Acid 05%	4
Hydrochloric Acid 10%	4
Hydrochloric Acid 20%	3
Hydrochloric Acid Con. 37%	0
Hydrofluoric Acid 05%	4
Hydrofluoric Acid 10%	3
Hydrofluoric Acid 20%	2
Hydrofluoric Acid Con. 52%	0
Nitric Acid 05%	4
Nitric Acid 10%	3
Nitric Acid 20%	0
Nitric Acid Con. 70.9%	0
Phosphoric Acid 05%	5
Phosphoric Acid 10%	5
Phosphoric Acid 20%	3
Phosphoric Acid Con. 75%	0
Sulfuric Acid 05%	5
Sulfuric Acid 10%	3
Sulfuric Acid 20%	2
Sulfuric Acid Con. 93%	0

MISCELLANEOUS

Ammonium Nitrate	5
Butyl Lactate	5
Cresol	2
Cupric Sulfate	3
Dibutyl Phthalate	5
Ferric Chloride 20%	4
Rosin (Tall Oil Fatty Acid)	5
Sodium Bisulfate	5
Sodium Sulfide	5
Trisodium Phosphate	5

ORGANIC ACIDS

Acetic Acid 1%	5
Acetic Acid 10%	4
Acetic Acid 20%	3
Citric Acid 05%	5
Citric Acid 10%	5
Citric Acid 30%	5
Diglycolic Acid	0
Lactic Acid 05%	5
Lactic Acid 10%	5
Lactic Acid Con. 88%	3
Oleic Acid	3
Oxalic Acid	5
Tannic Acid Con.	2
Uric Acid 05%	5
Uric Acid 10%	5
Uric Acid Con.	3

OXIDIZERS

Bleach (Clorox)	5
Hydrogen Peroxide 30%	5
Sodium Hypochlorite 10%	4

PETROLEUM PRODUCTS

Anti-Icing Fluid MIL-A- 82430	5
Brake Fluid	5
Ethylene Glycol	5
Gasoline	5
Glycerine	5
JP4 Jet Fuel	5
Mineral Oil	5
Motor Oil (w/Detergent)	5
Power Steering Fluid	5
Skydrol 500	5

SOLVENTS

Aromatic 100	5
Diacetone Alcohol	5
Ethanol	5
Ethyl Acetate	5
MAK	0
MEK	0
Methanol	5
MIBK	0
Mineral Spirits	5
Naptha (Aliphatic)	5
Toluene	5
Trichloroethane (1,1,1)	4
Xylene	5

FORMALDEHYDE

Formaldehyde 18%	0
Formaldehyde 37%	0

CHEMICAL TEST RATING KEY*

- 5 = No effect, no swelling, no apparent softening, no blisters, no staining
- 4 = No swelling, some staining, no blisters
- 3S = Some swelling or softening, no staining
- 3 = Some staining, some swelling, no blisters
- 2 = Some staining, some swelling, few blisters (1-2)
- 1 = Staining, swelling, blisters (2-4), softening of film
- 0 = General staining, swelling blisters (4+), loss of film integrity or adhesion

*These ratings are based upon the results of laboratory spot-testing on cured samples with the chemicals for 30 days. This test method is severe, as most floors are subject only to chemical spillages and splashes and are flushed periodically with water.

IMPORTANT: Many variables influence chemical resistance, including but not limited to, temperature, exposure, mixture of chemicals, etc. For these reasons, it is always advisable to install a test patch for evaluation prior to the installation of any product to determine its suitability for use based on your specific needs.

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GENERAL

For maximum service, the Surface Preparation, Mixing and Application instructions must be followed closely.

COVERAGE

One Contractor Unit of this material will cover 20 sq. ft. at a depth of 1/4 inch. Coverage depends upon skill of application and other variables such as overspread and type of surface to be coated. Above coverage rates are based on 100% efficiency.

SURFACE PREPARATION

Apply Perm-Epox™ HT to surfaces that are structurally sound and free of curing compounds, oils, paint, dust, acids, bases and other contaminants.

Application on Concrete Surface. Follow SSPC-SP 13/NACE No. 6, Surface Preparation of Concrete, available at www.SSPC.org. Proper preparation is necessary for coating adhesion.

Application on steel. Degrease with D112 Epoxy Thinner. Remove all rust, mill scale and paint down to bright metal. Grind or sandblast the surface to create a profile for optimum adhesion. Remove dust.

NOTE: Coat sandblasted surfaces with BOND 'N' SEAL before any discoloration or oxidation takes place. If the surfaces become wet, they must be dried and re-blasted.

PLANNING THE EDGES

"Keying in" is required for greatest durability. This is accomplished by placing parallel saw cuts around the perimeter of each application area. Place the saw cuts 1/2" apart with the outer edge 1/4" deep and inside edge 1/2" deep (See Figure 1).

The area between the saw cuts should be chiseled out to provide a thick "anchored" overlay at the edge. Tape the exterior perimeter. (See Figure 2).

PRIMING THE SURFACE

Apply BOND 'N' SEAL with a brush or roller, following Bond 'N' Seal Technical Data Sheet. Allow Bond 'N' Seal to dry 20 minutes (@77°F ± 5°F, ≤ 70% relative humidity, adequate ventilation) before applying Perm-Epox™ HT.

MIXING (FOR TROWELING)

1. Store Perm-Epox™ HT at 70°F for at least 24 hours prior to use.
2. Open Perm-Epox™ HT unit pail. Remove Epoxy Components A and B. Stir each can thoroughly before opening.
3. Pour all of Epoxy Components A and B into a clean 5-gallon pail.
4. Mix Component A and Component B together thoroughly for several minutes, occasionally scraping sides of container. In cold weather or to achieve a faster cure, induct the Epoxy mixture for 15 minutes prior to adding aggregate.
5. Slowly add aggregate to epoxy mixture while mixing in a 5-gallon bucket mixer or using a drill mixer. Continue mixing until smooth, mortar-like consistency and uniform color are attained (3-5 minutes).

APPLICATION

1. Apply Perm-Epox™ HT over Bond 'N' Seal primed surface while it is still slightly tacky. Do not use on surfaces colder than 50°F.
 - See MIXING for cold temperature applications. Temperatures of 70°F to 80°F accelerate curing and are preferred. Temperatures above 90°F and/or high humidity may greatly reduce pot life.

Figure 1.

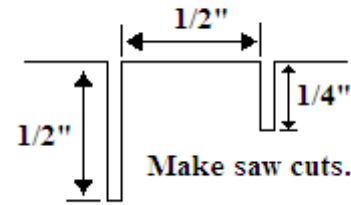


Figure 2.

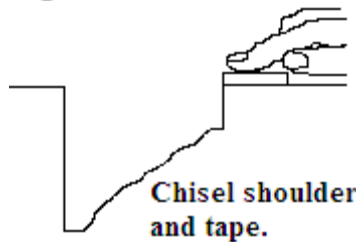
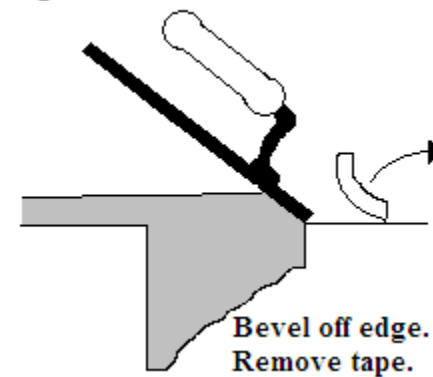


Figure 3.



- Maintain a minimum of 50°F for 48 hours after application.
 - DO NOT TROWEL IN RUNNING OR STANDING WATER.
2. Use Perm-Epox HT to grout in crevices and surface defects.
 3. Spread Perm-Epox™ HT over the surface to be repaired, then screed or rake the material to the desired thickness. To use as a deep fill, tamp Perm-Epox™ HT when the depth exceeds 1/2 inch. Thickness of less than 1/4 inch is not recommended. For 1/4 inch to 1/2 inch thickness, compact Perm-Epox™ HT firmly with a steel hand trowel or power trowel.
 4. Using flat, even trowel sweeps, smooth and finish off the surface. Excess pressure on the trailing edge of the trowel may cause a rough, open-textured finish. Clean trowel periodically with D112 Epoxy Thinner to reduce drag and provide a smooth finish.
 5. Remove edging tape and bevel the outer edge (See Figure 3).
 6. Wait 24 hours before applying a topcoat.

CLEANUP

Wash equipment with D112 Epoxy Thinner or lacquer thinner.

DANGER! USE WITH ADEQUATE VENTILATION.

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