

## PCS-809 CHEM-REST EPOXY TOPPING

**DESCRIPTION:** A quartz filled epoxy-phenolic composite complex designed for concrete restoration and/or protection where extreme chemical and abrasion resistance is necessary. The aggregate has been specifically chosen to develop an exceptionally strong bond with the resin. This provides extreme toughness and impact resistance along with an anti-skid surface and high compressive strength.

40% of the volume of cured **Chem-Rest** is resin; additional surface protection is not required for most environments.

Seal coating the surface of **Chem-Rest** will provide a longer service life in harsh chemical environments. Consult **PERMITE** for recommendation dependent on service.

**All of the components are pre-measured to insure reproducible quality.**

**Chem-Rest** may be applied to wet surfaces and will cure down to approximately 30° F (cure time is significantly longer under these conditions).

**Chem-Rest** is also available as a “resin only” system for customers desiring to furnish their own aggregate.

**SURFACE PREPARATION: Concrete:** Prepare as for conventional grout. Remove laitance by “sweep” abrasive blast or by treating with muriatic acid. Surface treatments such as curing membranes, surface hardeners, etc., should not be used as they interfere with adhesion. **Chem-Rest** will tightly bond to most surfaces; however, the use of **PCS-803 Grip-Tite Primer** will provide superior adhesion properties to the composite. **For Remedial Work:** All damaged areas should be cleaned to a sound surface. Prime with **PCS-803** before applying **Chem-Rest**. Surfaces not to be bonded should be precoated with paste wax or silicone grease.

An almost infinite number of sets of conditions can be encountered when protecting concrete floors. It is not possible to cover all possibilities in a data sheet. In case of doubt as to correct preparation, consult **PERMITE**.

(continued)

**COLOR:** Clear Amber

**NUMBER OF COMPONENTS:** Three

**VOLUME SOLIDS:** 100%

**VOC: No volatile organic compounds as supplied.**

**THEORETICAL COVERAGE:** 0.5 cu. ft. Kit will cover approximately 24 sq ft. at 1/4" thickness

**MIXING RATIO:** Premeasured components: One Gallon **Base**, one quart **Hardener**, 55 lbs. **Aggregate**

**COMPRESSIVE STRENGTH:**  
ASTM C109-49; 12,000 psi

**TENSILE STRENGTH:** ASTM C109-99; 3400 psi

**BOND STRENGTH:** **Steel:** 2600 psi  
**Concrete:** Stronger than concrete

**COEFFICIENT OF EXPANSION:**  
ASTM C531-63T;  $9 \times 10^{-6}$  in./in./°F

**LINEAR SHRINKAGE:** ASTM C531-63T;  
Approximately 0.0001 in./in

**WATER ABSORPTION:** 28 days  
Approximately 0.01%

**WORKING POT LIFE:** 2 hours at 75° F

**CURE TIME:**  
Foot Traffic - 12 hours at 75° F  
Full Cure - 48 hours at 75° F

**WEIGHT/CUBIC FOOT:** 110 lbs

**PACKAGING:** 0.5 cubic ft. kit (3.75 gallons)

**SHELF LIFE:** 12 months in unopened containers

**DO NOT STORE ABOVE 90° F.**

*Manufacturing and Executive Offices:*

5239 BRER RABBIT ROAD • STONE MOUNTAIN (ATLANTA), GEORGIA 30083-1317  
Phone: (404) 292-4842 <http://www.permitepaints.com> FAX: (404) 296-4825

**MIXING:** Surface should be cleaned and primed before mixing **Chem-Rest**. Mix the **entire** contents of the kit as follows: (1) Empty the AGGREGATE portion into a temporary, clean, dry container. (2) Add the BASE and HARDENER together in the original AGGREGATE container and blend thoroughly with a power mixer for 3 minutes. **(note: the resin mixture without aggregate generates a high level of heat and will become rock-hard in 18-20 minutes @ 72° F.)** (3) Immediately begin adding the AGGREGATE to the BASE/HARDENER mixture slowly with agitation to completely wet-out the aggregate. Special mixers made specifically for 5-gallon containers are available commercially. A ribbon blender or plaster mixer is satisfactory. Blend until a stiff uniform paste is achieved.

**APPLICATION:** **Chem-Rest** may be hand or machine troweled. Because the mix is slightly “puffy,” some pressure on the trowel is necessary to eliminate voids in the applied grout. When applying to **vertical surfaces**, the mix should be made “stiffer” by incorporating Cabosil M-5, or Aerosils, or similar acting additive to improve the slump resistance. When tying into **existing cured epoxy grouts**, adhesion is difficult to achieve. Consult **PERMITE** for assistance in the design of procedure in these cases.

**CLEAN UP:** Use methyl ethyl ketone (MEK), xylol or proprietary epoxy solvents for clean up. **Do not delay clean up;** cured **Chem-Rest** is difficult to remove.

**CHEMICAL RESISTANCE:** At ambient temperatures up to 100° F, **Chem-Rest** is suitable for the following:

Sulfuric Acid . . . . .	Up to 70%
Hydrochloric Acid . . . . .	Up to 25%
Nitric Acid . . . . .	Up to 25%
Acetic Acid . . . . .	Up to 25%
Sodium Hydroxide . . . . .	Up to 70%
Most aqueous solutions of salt at all concentrations	

**Chem-Rest** is not resistant to some organic solvents; contact **PERMITE** for specific data.

In the presence of strong acids, the surface of **Chem-Rest** will develop a pronounced green color. This is permanent but does not affect the long-term protective qualities.

**CAUTIONS:** **PCS-809** hardener is corrosive. Components of this product, when combined, may be skin irritants and/or skin sensitizers. Rubber gloves should be worn to minimize skin contact. Practice caution and good personal cleanliness to avoid skin and eye contact. Avoid breathing vapors of heated material.

**If swallowed, do not induce vomiting.** Call a physician immediately. For eye contact, flush with lots of water. In case of skin contact, wash thoroughly with soap and water.

**See material safety data sheet for full precautions prior to use.**

**PCS-809** is intended for PROFESSIONAL USE ONLY.