

# PERMACOAT 4000

Modified Epoxy Floor Coating

## DESCRIPTION

PERMACOAT 4000 is a 100% solids modified epoxy floor coating. PERMACOAT 4000 can be utilized as a glaze coat for the PERMATEC high build floors, or as a two-coat flooring or containment system (30-80 mils). When applied as a two-coat floor or containment system, a silica broadcast is used between coats.

PERMACOAT 4000 consists of two components, resin and hardener, in both the horizontal and vertical formulations. Its application is accomplished with rubber squeegees and short nap paint rollers.

## FUNCTION

PERMACOAT 4000 is designed as a medium duty (30-80 mils) floor coating and/or secondary containment system where moderate mechanical abuse and chemical exposure are anticipated.

PERMACOAT 4000 can be installed over most sound floors, including old or new concrete, steel and wood, providing a cost-effective alternative to high-build floor toppings.

## TYPICAL APPLICATIONS

- Food processing plants
- Chemical processing plants
- Breweries
- Laboratories
- Pulp & paper mills
- Processing areas in general where chemicals are used
- Any area that requires a safe, non-slip floor

## FEATURES

PERMACOAT 4000 allows for a fast, easy application. It also offers chemical resistance and physical performance much higher than those found in paints and other thin mil coatings.

**NOTE:** At 30-50 mils, PERMACOAT 4000 provides excellent chemical resistance for splash and spill exposures. In addition, when applied at 50-80 mils, it can often be recommended for containment service. (For specific recommendations, refer to the "Chemical Resistance Guide" and your local distributor.)

## OTHER FEATURES INCLUDE:

- Rapid cure resulting in minimal downtime
- Odor free
- Non-skid safety finish

## TYPICAL PROPERTIES

|  |   |
|--|---|
| Solids, by Volume                            | 100 %   |
| <hr/>  |   |
| Hardness (Shore D)<br>ASTM D2240             | 82-85   |
| <hr/>  |   |
| Flexural Strength<br>ASTM D790               | 17,000 psi  |
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| Tensile Strength<br>ASTM D307                | 11,300 psi  |
| <hr/>  |   |
| Bond Strength to<br>Concrete ASTM D4541      | Exceeds tensile strength<br>of concrete.<br>Failure in concrete |
| <hr/>  |   |
| Taber Abrasion<br>ASTM D4060<br>CS 17 Wheels | Loss/1000<br>cycles =25 mg                                      |
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| Compressive Strength<br>ASTM C579            | 15,300 psi  |

## PACKAGING AND COVERAGE

PERMACOAT 4000 is packaged in one and three gallon units. Each unit consists of pre-measured components, Part A (Resin) and Part B (Hardener).

Application thickness may vary from 30-80 mils, depending on the expected service conditions. Factors to consider are 1) length of chemical exposure, 2) mechanical abuses and 3) substrate texture.

## CURE TIME

The cure time of PERMACoat 4000 and other resinous systems are very dependent upon the temperature of the substrate. The chart below represents the approximate times for the respective service conditions, following the last coat:

| Service (hours) | 70F | 80F | 90F |
|-----------------|-----|-----|-----|
| Foot Traffic    | 10  | 8   | 6   |
| Light Chemical  | 14  | 12  | 10  |
| Fork Lift       | 24  | 16  | 12  |

## MIXING

Prior to application of PERMACOAT 4000, the resin, hardener and substrate should be between 70 degrees F and 95 degrees F.

Premix the Resin (Part A) for 30 seconds using a Jiffler mixer blade attached to a 500-750 RPM drill. Add the Hardener (Part B) only when the batch is ready to be applied. Mix for approximately 90-120 seconds. After mixing, pour immediately onto the floor.

## APPLICATION

Use a rubber squeegee to spread the resin over the pre-measured area to be covered. Immediately back roll the PERMACOAT 4000 with a short nap (1/8 inches) wool or mohair roller. At this point, several pre-specified readings should be made with a wet mil gauge to assure uniform coverage. After the coating has been back rolled and uniform thickness verified, the surface should be saturated with a silica broadcast.

After the first coat supports foot traffic, the excess silica can be removed. Within 24 hours a second coat of PERMACOAT 4000 should be applied using the same procedure, minus the silica broadcast.

**NOTE:** Additional broadcasts and roll-coats can be utilized to increase floor thickness.

## CLEAN-UP

All mixing and application equipment should be cleaned immediately after use. If this is done, soap and water or biodegradable cleaners can be used. If the material has begun to set, more aggressive solvents will be necessary. Before using solvents, refer to their respective SDS for handling considerations.

## MAINTENANCE

For systems designed for splash and spill exposures, routine wash downs are recommended to reduce the length of chemical exposure. This step is not necessary where the product is recommended for containment service.

## STORAGE and SHELF LIFE

PERMACOAT 4000 should be stored at 50-90 degrees F out of direct sunlight. All containers should remain unopened until ready for use. If stored as set out above, PERMATEC 4000 has a minimum shelf life of one year.

## WHERE PERMACOAT 4000 SHOULD NOT BE INSTALLED

PERMACOAT 4000 should not be applied over substrates:

- subject to hydrostatic pressure
- which are unsound
- which are contaminated and cannot be cleaned
- at temperatures below 70 degrees F (Consult ChemProof Polymers)
- which are wet during the application

## SAFETY

Read Safety Data Sheets (“SDS”) before using. PERMACOAT 4000 contains blended Epoxies as the resin and blended Amines as the hardener. Protective clothing and gloves are recommended to prevent sensitization to these materials. In case of ingestion or eye contact, it is advisable to contact a physician immediately. SDS are available for this product upon request.

## **WARRANTY**

ChemProof Polymers, Inc. warrants that at the time of shipment, its products are free of defects in material and workmanship. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by ChemProof Polymers, Inc. ChemProof Polymers, Inc. makes no warranty concerning the suitability of its product for application to any surface, it being understood that the goods have been selected and the application ordered by the Owner/End User or Purchaser. CHEMPROOF POLYMERS, INC. MAKES NO WARRANTY, EXPRESS OR IMPLIED, THAT THE GOODS SHALL BE MERCHANTIBLE OR THAT THE GOODS ARE FIT FOR ANY PARTICULAR PURPOSE. THE WARRANTY OF REFUND OR REPLACEMENT SET FORTH HEREIN IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES ARISING BY LAW OR OTHERWISE; AND CHEMPROOF POLYMERS, INC. SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, DOWN TIME, DAMAGES TO PROPERTY OF THE OWNER/END USER, PURCHASER OR OTHER PERSONS, OR DAMAGES FOR WHICH THE OWNER/END USER OR PURCHASER MAY BE LIABLE TO OTHER PERSONS, WHETHER OR NOT OCCASIONED BY CHEMPROOF POLYMERS, INC.'S NEGLIGENCE. This warranty shall not be extended, altered or varied except by written instrument signed by ChemProof Polymers, Inc. and Owner/End User or Purchaser.

The full product warranty is available at [www.chemproof.com](http://www.chemproof.com).

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