

PERMAFLEX 1100

Flexible Epoxy Coating

DESCRIPTION

PERMAFLEX 1100 is a 100% solids epoxy floor coating with exceptional elongation properties. The PERMAFLEX 1100 system can be used as a flexible base coat for the PERMATEC high build floors, or as an independent multi-coat flooring/deck coating (30-100 mils).

FUNCTION

PERMAFLEX 1100 is designed as a medium duty (30-100 mils) floor/deck material where flexibility, chemical resistance and epoxy toughness are important. PERMAFLEX 1100 can be installed over most sound substrates, including old or new concrete, steel and wood. PERMAFLEX 1100 is ideal for the treatment of operating cracks.

PERMAFLEX 1100 is also ideal for use as a secondary containment system. When used as a stand-alone containment system, a minimum of 50 mils is recommended.

TYPICAL APPLICATIONS

- Chemical containment areas
- Vibrating substrates
- Parking decks
- Other areas where substrate movement is anticipated

FEATURES

PERMAFLEX 1100 provides high impact and tear resistance, while maintaining high tensile strength and elongation properties. PERMAFLEX 1100 provides the superior adhesion of an epoxy with urethane elasticity, along with excellent impact resistance in temperatures at and below freezing.

OTHER FEATURES INCLUDE:

- Low odor
- Non-skid safety finish (optional)

TYPICAL PROPERTIES

Solids, by Volume 100 %

Hardness (Shore A/D)

ASTM D2240 94/47

Elongation	@77 degrees F	100%
ASTM D638	@14 degrees F	38%

Tensile Strength
ASTM D638 1,001 psi

Bond Strength to Concrete ASTM D4541 Exceeds tensile strength of concrete.
Failure in concrete

PACKAGING AND COVERAGE

PERMAFLEX 1100 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 30-100 mils, depending on the expected service conditions. Factors to consider are 1) traffic load, 2) movement and 3) sub-strate texture.

CURE TIME

The cure time of PERMAFLEX 1100, as with other resinous systems, is 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	14	10	8
Light Chemical	24	18	12
Fork Lift	30	25	16

MIXING AND APPLICATION

The following is a brief summary of concrete preparation and the application procedure for PERMAFLEX 1100. This information is intended for use in the system evaluation. Applicators should refer

to the “PERMAFLEX 1100 Application Bulletin” for more detailed application procedures.

MIXING

Prior to application of PERMAFLEX 1100, 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 first coat of resin at approximately 8-12 mils over the pre-measured area to be covered. Immediately back roll the PERMAFLEX 1100 with a short nap (1/8 inches) wool or mohair roller. After the coating has been back rolled and uniform thickness verified, allow the coating to cure.

After the first coat supports foot traffic, and within 24 hours, a second coat of PERMAFLEX 1100 should be applied using the same procedure, followed by a silica broadcast to saturate the surface

After the second coat supports foot traffic, the excess silica can be removed. A final 8-12 mil topcoat should then be applied to encapsulate the exposed silica.

NOTE: There are a few cases when PERMAFLEX 1100 by itself may not be adequate for the anticipated movement of the substrate. In these instances, fiberglass in the form of woven roving should be incorporated into the system.

The following recommendations should be noted when deciding whether or not to use woven roving:

- a. If the PERMAFLEX 1100 is to be used as complete underlayment prior to installing a “heavy duty” (1/8 to 1/4 inch) topping, woven roving should be used.
- b. If the PERMAFLEX 1100 is to be used as a crack, control joint or, in certain cases, expansion joint encapsulation, woven roving should be used.

- c. Woven roving should not be used below thin coatings (25-35 mils) unless it can be recessed into the substrate.

CHEMICAL RESISTANCE

Please contact your distributor or ChemProof Polymers.

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

PERMAFLEX 1100 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, this product has a minimum shelf life of one year.

WHERE PERMAFLEX 1100 SHOULD NOT BE INSTALLED

PERMAFLEX 1100 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

The full product warranty is available at
www.chemproof.com.

CONTACT INFORMATION

ChemProof Polymers, Inc.
2750 Charles Page Blvd.
Tulsa, OK 74127
Phone: 918-584-0364
Fax: 918-584-0366

SAFETY

Read Safety Data Sheets ("SDS") before using. PERMAFLEX 1100 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 MERCHANTABILITY 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.