

# 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 an industrial floor coating 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. When fiberglass reinforced, PermaFlex 1100 is ideal for the treatment of operating cracks.

### TYPICAL APPLICATIONS

- Cracked substrates
- Containment basins
- Trenches
- Sumps
- Tank bases
- Any area in general where harsh chemicals are used

### FEATURES

PERMAFLEX 1100 provides high impact and tear resistance, while maintaining high tensile strength and elongation properties. PermaFlex 1100 also provides the superior adhesion of an epoxy with urethane elasticity.

#### Other Features Include:

- Rapid cure resulting in minimal downtime
- 100% elongation
- Odor free
- 100% Solid by volume
- 0 VOC's as supplied by manufacturer

### TYPICAL PROPERTIES

Solids, by Volume	100 %	
Hardness (Shore A/D)	94/47	
ASTM D 2240		
Elongation	@77 F	100%
ASTM D 638	@14 F	38%
Bond Strength to Concrete ASTM D4541	Exceeds tensile strength of concrete. Failure in concrete	
Water Absorption	0.10%	
ASTM D413	Maximum	

## PACKAGING AND COVERAGE

PERMAFLEX 1100 is available in 1 and 3 gallon units. The coverage rate is appx. 64 sq ft at 25 mils with the theoretical coverage being 1604 sq ft at 1 mil. Application thickness may vary depending on the intended use and service conditions.

## CURE TIME

The cure time of PERMAFLEX 1100 as with other resinous systems, is very dependent upon the temperature of the substrate. The ambient temperature may not be the same as the substrate temperature. For example, during winter concrete may be colder than the surrounding ambient temperature. As temperatures during the day may increase, large masses of concrete will be much slower to react. During summer days direct sunlight will increase the concrete temperature over that of ambient air. The substrate temperature should be monitored and remain at or above 65° F.

Service (hours)	65°F	75°F	90°F
Foot Traffic	14	10	8
Light Chemical	24	18	12
Fork Lift	30	24	16

*\*Where heavy chemical abuses are anticipated, longer cure times may be required. Contact ChemProof Polymers or the local distributor for specific recommendations. These times are after the final coat has been applied.*

## SURFACE PREPARATION

**NEW CONCRETE** – The concrete should be well cured for a minimum of 10 (ten) days, per ACI 308-81, (R-1986), clean, dust-free and free of all contaminants. Mechanical methods such as sandblasting, scarifying or shot blasting should be employed to remove the weak layer of surface laitance. A minimum tensile strength of 200 psi is required of the prepared surface. Acid etching with muriatic acid is acceptable but less desirable. Care must be taken to completely remove all residual acid prior to the application of PERMAFLEX 1100.

**EXISTING CONCRETE** – Concrete must be structurally sound and free of all contaminants. Weak or contaminated concrete must be removed until sound

concrete is realized. Old coatings, toppings, waxes, oils, etc. must be removed prior to the application of PERMAFLEX 1100.

## MIXING

Prior to application, the PERMAFLEX 1100 (Resin, Hardener and Silica) and the substrate should be between 65 and 90° F.

Premix the Part A (Resin) for appx. 30 seconds with a Jiffiler type mixer prior to adding the Part B (Hardener). After adding Part B mix for an additional 1 minute before pouring onto the substrate.

## APPLICATION METHODS

### Basic Broadcast

In order to achieve a 60 mil system, apply a 22 mil (73 sq ft/gal) basecoat and for a 125 mil system, apply a 48 mil (34 sf/gal) basecoat. Within 20 minutes of the basecoat being applied broadcast to excess using a 20/40 mesh silica. Once the basecoat is cured, apply a 10-16 mil topcoat utilizing squeegees and short nap paint rollers.

### Basic Broadcast Reinforced

A 1.5 oz chopped or a fiberglass scrim cloth can be added to the basecoat of the 125 mil system prior to the silica broadcast.

**Note:** The above systems have their vertical rolling counterparts.

## STORAGE and SHELF LIFE

PERMAFLEX 1100 should be stored at 50-90° F out of direct sunlight. All containers should remain unopened until ready for use. If stored as set out above, PERMAFLEX 1100 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 extreme hydrostatic pressure
- which are unsound
- which are contaminated and cannot be cleaned.
- at temperatures below 65° F (Consult ChemProof Polymers).

## 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 our products to be free of manufacturing defects in accord with applicable ChemProof quality control procedures. 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. No other warranty or guarantee of any kind is made by ChemProof Polymers, expressed or implied, statutory, by operation of law or otherwise, including merchantability and fitness for a particular purpose.

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

## 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.

## RELATED & ANCILLARY PRODUCTS

PERMACOAT 3000  
Epoxy Floor Coating/Topping

PERMACOAT 5000  
Modified Epoxy Floor Coating/ Topping

PERMAGROUT E  
Epoxy Grout/Resurfacer

Related Vertical Products

## CONTACT INFORMATION

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