

## PSC 2308 Green Concrete Epoxy Primer

PSC 2308 Green Concrete Epoxy Primer is a two-component, self leveling, 100 % solids epoxy primer. PSC 2308 is low viscosity formulated polyamidoamine type primer formulated for applications on green, damp concrete. It can be applied as soon as concrete has cured enough that applicator can walk on it.

It can also be applied on steel (sandblasted) and dew coated steel.

Due to low viscosity, PSC 2308 Green Concrete Epoxy Primer penetrates into the concrete substrate and strengthens it thus providing a barrier for out gassing, which can cause blistering and delamination. PSC 2308 also facilitates the application of highly filled trowelable materials such as mortar screeds.

PSC 2308 Green Concrete Epoxy Primer can be applied in high humidity conditions and allows the application to proceed in spite of the elements. It has excellent adhesion and curing properties, 350 psi on damp concrete and 800 psi on dry concrete. PSC 2308 provides excellent adhesion also on sandblasted steel substrates.

PSC 2308 Green Concrete Epoxy Primer is safe to use and more environmentally friendly than solvent based systems.

### Uses

- Designed for one coat applications up to 20 mils.
- Interior, new or old horizontal concrete surfaces.
- Sandblasted steel surfaces.
- Primer for use with epoxy topcoats and for broadcast and seeded systems.
- Industrial, commercial, municipal and warehousing facilities.
- Aircraft hangars, vehicle repair bays, paper mills, service stations, water treatment facilities, waste treatment facilities, meat packing and food processing facilities, dairies, canneries etc.

### Advantages

- Can be applied in rainy and high humidity conditions.
- Can be applied on green, fresh concrete.
- Outstanding adhesion on damp, green concrete.
- Long pot life, 35 minutes @ 20° C.
- Safe to use, environmentally friendly.
- Fills and hides minor surface imperfections, bridges hairline cracks.
- Excellent workability, low odor.
- Easy application with squeegee, roller or trowel.
- Waterproof new or existing indoor horizontal concrete structures.
- Protect deterioration of reinforcing steel caused by ingress of chloride, acids etc.

### PSC 2308 is designed to

- Perform under adverse weather conditions
- Allow the application of epoxy topcoats to proceed as soon as applicator can walk on it.

### How does PSC 2308 perform?

- It has excellent bond strength, 350 psi on damp concrete and 800 on dry concrete.
- PSC 2308 performs in rainy and high humidity conditions.

### Suggested system components

Primer	PSC 2308 Green Concrete Epoxy Primer
Intercoat or topcoat	PSC 2300 Industrial Epoxy, PSC 2301 ClearGuard or PSC 2306 Novolac.
Alternative topcoat	PSC 2302 Flexible Epoxy or PSC 2304 Exterior Epoxy for a UV resistant application.

## Limitations

Avoid applying PSC 2308 Green Concrete Epoxy Primer in direct sunlight during times of extreme heat. This can cause air bubbles being caught under the surface of the coating, wrinkling, blistering and pinholes. Schedule the application for early morning or late afternoon when ambient and substrate temperatures are low.

Protect both components A and B from freezing.

Do not apply if ambient or substrate temperature is below 15 C° (60 F°) or over 30 C° (86 F°).

Do not thin. Addition of thinners will slow down the cure and reduce the qualities of this product. Critical re-coat times will also be affected.

Do not spray this product.

## General data

- Solids content	100 %	
- VOC	0	
- Viscosity @ 25.5 C°	800 CP	
- Appearance	Clear	
- Mix ratio	Mix two volumes of resin (A), with one volume of hardener (B)	
- Mixing method	Low speed jiffy mixer.	
- Pot life	35 minutes at 20 C° (68 F°)	
- Thinning	NOT RECOMMENDED	
- Drying time	At 25 C° (78 F°)	
	Tack free time	12 to 14 hours
	Re-coat time	12 to 18 hours
	Light foot traffic	24 hours
	Full cure	48 hours
- Flash point	85 C° (185 F°)	
- Recommended WFT	6 to 20 mils.	
- Coverage @ 6 mils WFT	270 sq. ft. / gallon	
- DFT @ 6 mils WFT	6 mils	
- Shelf-Life	1 year in unopened container	
- Application method	Squeegee, roller or trowel	

Low surface temperatures and/or high ambient humidity require a longer drying time.

## System estimating guide

- Film thickness @ 6 to 12 mils, coverage from 270 to 130 sq. ft. / USG..
- Coverage will vary according to surface texture and porosity.

## Cured resin performance for PSC 2308 Green Concrete Epoxy Primer

Description	Test Method	Results
Solids content	ASTM D2697	100 %
Compressive strength	ASTM D695	6,900 psi
Tensile strength	ASTM D638	5,900 psi
Elongation at break	ASTM D638	7 %
Pull off strength (on damp concrete)	ASTM D4541	350 psi
(on dry concrete)		800 psi
Water resistance	ASTM D570	0.2 %
Fungus/bacteria resistance	Mil-F-52505	No support of growth (TT-P-34)

## Maximum temperature limits for PSC 2308 Green Concrete Epoxy Primer

Dry heat	85 C° (185 F°)
Spills	66 C° (150 F°)
Immersion	66 C° (150 F°)
Cold	-40 C° (-40 F°)

Above temperature limits are laboratory test results.

### Test section

Apply PSC 2308 in an inconspicuous area measuring approx. 5 ft. by 5 ft. and evaluate for compatibility with an existing coating, if any, and for proper adhesion. Follow the surface preparation and application instructions.

### Preliminary floor inspection and surface preparation

The area to be coated must be clean, sound, dry and above 15 C° (60 F°) and less than 30 C° (86 F°) to assure a successful application. Test for vapor drive according to ASTM D4263.

If there is uncertainty as to whether or not a curing compound or any coating is present on the floor, the following tests can be performed.

- Pour a cup of water on three or four areas on the floor. If the water puddles out, then there probably is not any curing compounds or coatings on the floor and the preparation process may begin. If the water beads up like rain on a waxed car, then curing compounds or any other coatings may be present. These must be removed either by chemical or mechanical means.
- Place a drop of muriatic acid on the floor. If the acid bubbles, a curing compound or any other coating is not present.

The concrete substrate must be examined for the presence of moisture. Test vapor drive according to ASTM D4263. The vapor drive should not exceed 3 lbs/1000 sq.ft./24 hours. Follow instructions as outlined by the supplier of the test kits. Make sure the concrete surface to be tested is completely clean of any residue or other debris. All sealants, curing compounds and coatings must be removed before testing.

Remove all oil, grease, wax, dirt, laitance and other surface contaminants. Mechanical methods are recommended to clean concrete, such as shot-blasting, scarification, sandblasting, and high-pressure water blasting. Next sweep and vacuum any remaining dirt and dust with a wet/dry vacuum.

Contaminants may also be removed by scrubbing with PSC 0100 Cleaner Degreaser, followed by thoroughly rinsing and scrubbing with clean water. Do not use unbuffered acid, or any solvents to remove contaminants. Do not use sweeping compounds to remove dust.

### Mixing

PSC 2308 is prepared by accurately measuring the required amounts, 2 Parts by volume of resin (A) and 1 Part by volume of hardener (B), into a clean mixing container. Pour the components slowly to avoid introducing air bubbles. Mix for 2 to 3 minutes. Scrape the sides and bottom of the mixing container to ensure complete mixing.

- Carefully empty the contents of Part B, hardener, entirely into the mixing container of Part A, resin.
- Mix with very low speed jiffy mixer, until completely blended. Be careful not to introduce air bubbles while mixing.
- Due to the difference in viscosity between Part A, resin, and Part B, hardener, care must be taken to thoroughly mix both components in order to avoid partially cured and weak spots in the coating.

Accuracy in measuring and mixing the components is essential to the performance of the product.

### Application

- Apply by first pouring a bead of material in the form of a ribbon on the surface to be coated. Do not leave the material in the container for too long because it will set faster thus reducing the pot life.
- Using a serrated squeegee, spread the poured material at desired thickness. Do not exceed 20 mils with one coat. Apply as evenly as possible with slow steady motion in one direction.
- Back roll using a high quality nap roller. Avoid excessive agitation of the liquid with the roller, particularly if applying a thin coat between 6 to 12 mils as it may leave bubbles or pinholes in the applied film.
- Roll thicker built surfaces, 12 to 20 mils, with a porcupine roller after 10 minutes to remove excess bubbles, if any.

PSC 2308 Green Concrete Epoxy Primer is designed to be used as it is and therefore thinning or reducing with solvents is not recommended.

The pot life of PSC 2308 is approximately 35 minutes at 20° C (68° F). High temperature and high humidity will accelerate curing and reduce pot life. PSC 2308 is not a solvent based system therefore the pot life is relatively short. Do not mix more kits of material than can be used within this period of time.

### Curing time

The floor area should be maintained at a temperature range of 10° C (60° F) or less than 30° C (86° F) during application and curing.

Temperature	10° C (60° F)	25° C (78° F)	30° C (86° F)
Tack free	20 hours	12 to 14 hours	6 to 8 hours
Re-coat	20 to 28 hours	12 to 24 hours	6 to 12 hours
Full cure	72 hours	48 hours	30 hours

If PSC 2308 is allowed to cure longer than 28 hours before subsequent re-coats, screening will be necessary. The surface should be screened to the effect that a uniform dullness is achieved. There should be no gloss present on the floor before applying the next coat

### Clean up

Equipment should be cleaned immediately after use with solvents such as PSC Epoxy Reducer.

### Trouble shooting

Problem observed	Possible causes
Fisheyes	Oil contamination Improper substrate cleaning Mold release agents
Peeling from substrate	Improper mixing Insufficient preparation process Oil impregnation Moisture in concrete Hydrostatic water pressure
Peeling between coats	Past critical re-coat time Contamination between coats
Coating soft, dulling	Improper mixing Use of thinner in product Extreme weather conditions
Whitening Slow cure	Water on the surface during drying Low substrate and ambient temperatures Use of thinner in product Improper mixing Product applied too thin
Fast Cure Bubbling	Wrong ratio re. Part A and B. High substrate and ambient temperatures High temperatures Hydrostatic pressure Working product past pot life Improper mixing Overworked the product

### Recommendations

- Always apply a test patch in an inconspicuous area. Confirm compatibility with the substrate and that the application meets owner's expectations.
- For interior use only.
- Seal product containers immediately after use.
- Store product cool and dry at temperatures above 10° C and below 30° C.
- Use a single container to accurately measure the volumes of Part A and Part B.
- For accuracy in transfer, scrape the walls of the measuring container.
- Use only clean and dry equipment.

## **Exposure risks**

PSC 2308 contains isophorone diamine and other proprietary aliphatic polyamines.

Corrosive, may cause severe eye and skin burns. Harmful or fatal if swallowed. Aspiration hazard if swallowed, can enter lungs and cause damage. May cause allergic skin reaction. May cause blindness.

## **Proposition 65**

This product contains chemicals listed by the State of California as known to cause cancer, birth defects, or other reproductive harm.

## **VOC content**

Part A and Part B combined contain 0 g/L of VOC.

## **Shipping Information**

Dangerous goods, class 8, UN 1760, PG III.

## **Precautions**

Keep out of reach of children. Avoid all personal contact. Use rubber gloves, eye protection. Use adequate ventilation. If the TLV is exceeded or if products used in a poorly ventilated area, use NIOSH / MSHA approved respiratory protection in accordance with applicable federal, state, provincial and local regulations. Avoid breathing vapors.

Seal containers after use. Empty containers may contain hazardous residues. All warning labels must be observed until containers are commercially cleaned or reconditioned.

## **First aid**

In case of eye contact, flush thoroughly with water for at least 15 minutes. Seek immediate medical attention. In case of skin contact, wash affected areas with soap and water. If irritation persists, seek immediate medical attention. If inhalation causes physical discomfort, persists or any breathing difficulty occurs, seek immediate medical attention. If swallowed, seek immediate medical attention.

Refer to Material Safety Data Sheets (MSDS) for further information.

## **Safety**

We certify that PSC 2308 Green Concrete Epoxy Primer is formulated without lead, mercury, asbestos or chromates.

## **Maintenance**

PSC Maintenance Products are specifically formulated to protect and maintain the appearance of PSC top coats. Consult Technical Specifications for wax for performance details.

To clean the surface, use periodically PSC 0150 Cleaner-Rejuvenator. To protect the surface, use regularly PSC 0200 DuraWax-Gloss or PSC 0210 DuraWax-Satin.

## **Packaging**

3 gallon kit (short filled / 2 gallons Part A and 1 gallon Part B)

15 gallon kit (10 gallons Part A and 5 gallons Part B)

## **Warranty Disclaimer**

We guarantee our Products to conform to the specifications of Polymer Science Corporation. Polymer Science Corporation makes no warranty or guarantee, express or implied, including warranties of fitness for a particular purpose or merchantability, respecting its Products. Liability, if any, is limited to refund of purchase price or replacement of the Product. All consequential damages, labor and cost of labor are hereby excluded.

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