

## PSC 2102 WB EpoxyCoat

PSC 2102 WB EpoxyCoat is water based, two component epoxy coating. Both components are precisely measured and packaged for accurate on-site mixing and use.

PSC 2102 is a tinted epoxy coating with excellent bond strength, good durability and low odor. It comes, only in clear. A good choice for applications where good vapor permeability for the coating is required. PSC 2102 is approved by CFIA (Canadian Food Inspection Agency).

### Uses

- Interior, new or old horizontal concrete surfaces.
- Showrooms, warehouses, commercial facilities.
- Residential facilities, garages, hallways, basements.

### Advantages

- Excellent bond strength.
- Good durability.
- Very good chemical resistance.
- Low odor.
- Good workability.
- Produces a smooth, seamless finish.
- Good vapor permeability.

### PSC 2102 is designed to

- Waterproof new or existing indoor concrete surfaces.
- Reduce maintenance costs associated with unprotected concrete.
- Protect from deterioration of reinforcing steel caused by ingress of chloride, acids, etc.
- Protect concrete from various chemicals, like gasoline, aviation fuel, brake fluids, alkalis and solvents.
- Prolong the life of your concrete floor.
- Protect concrete from leakage and moisture intrusion.
- Prevent scaling and spalling.

### How does PSC 2102 perform?

- It bonds to concrete and becomes an integral part of the concrete surface.
- It is liquid applied to form a seamless protective barrier.
- PSC 2102 system is sustainable for the life of the floor.

### Suggested system components

Primer	PSC 2100 or 2102
Intercoat or topcoat	PSC 2102
Alternative topcoat	PSC 2301, PSC 3101, PSC 3102 or PSC 3121 for ultimate abrasion resistance.

### Limitations

Avoid applying PSC 2102 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.

PSC 2102 is not intended for exterior use, immersion or application where moisture can reach the underside of the coating.

Do not apply if ambient or substrate temperature is below 10 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

- Standard colors	Available in clear only.
- Solids	46 % (untinted)
- VOC	56 g/L
- Flash point	N/A
- Finish	Glossy
- Mix ratio	Mix equal volumes of Part A and Part B
- Pot life	2 hours @ 20 C (68 F)
- Recommended WFT	4 mils
- Theoretical coverage @ 4 mils WFT	400 sq.ft./gallon
- DFT @ 4 mils WFT	1.7 mils
- Pull strength	Greater than 300 psi depending on substrate
- Permeance ASTM E-96 (procedure A)	8.8* 10 <sup>-8</sup> g/(Pa.s.m <sup>2</sup> ) at 9 mils DFT 1.54 perms at 9 mils DFT (in inch. pound units) 3.5 perms @ 4 mils DFT
- Shelf life	1 year in unopened containers

### Chemical resistance data

Consult PSC technical assistance.

### Test Section

Apply PSC 2102 in an inconspicuous area measuring approx. 3 ft. by 3 ft. Inspect for proper appearance and adhesion.

### Preliminary floor inspection and surface preparation

The area to be coated must be clean, sound, dry and above 10 C (50 F) and less than 30 C (86 F) to assure successful application. Concrete must be at least 14 days old. Test for vapor drive according to ASTM D4263.

If there is uncertainty as to whether a curing compound or any other 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 bubbles 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 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. Pay attention to permeance of the coating, at 4 mils DFT 3.5 perms and at 9 mils DFT 1.54 perms. Substrate must be dry.

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 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 and tinting

Wear protective gloves and goggles to avoid injury from splashes. This product has a limited pot life. Complete all surface preparations before mixing Part A and Part B.

The use of this product without tinting is not recommended. Accuracy in measuring and mixing Part A and Part B, and the colorants is essential to the performance of the product, and color consistency between the batches. For accurate transfer of components, scrape the walls of all containers that they are being emptied completely. Seal product containers immediately after use. Do not mix components together by hand. Use a jiffy mixer blade and an electric drill at very low speed. Keep mixer blades immersed in liquid to avoid introducing air bubbles.

Re-mix Parts A and B before use. Accurately measure the required amounts of Parts A and B (1 to 1 mix ratio by volume), and colorant. Pour Part A and the colorant slowly into the mixing container. Avoid introducing air bubbles. Mix for 2 to 3 minutes. Scrape

the sides and bottom of mixing container to ensure complete mixing. Then pour Part B slowly into the tinted Part A. Mix for 2 to 3 minutes. Scrape again the sides and bottom of the mixing container to ensure complete mixing.

**Pot life**

Determine the pot life from table below. Note that the end of pot life is not apparent from the thickening or heating of the mixed Parts A and B. Do not use the coating beyond its pot life.

Temperature	10 C (50 F)	20 C (68 F)	30 C (86 F)
Pot life	2 hours	2 hours	1 hour

**Application**

Wear protective gloves and goggles to avoid injury from splashes. Surface and atmospheric temperature must be between 10 C (50 F) and 30 C (86 F) during the application and while the coating is curing. Provide adequate air movement and ventilation during the application and cure period to facilitate water evaporation from the coating.

Apply mixed coating from a roller tray using a high quality woven 3/8" (10 mm) nap roller suitable for the application of water based coatings. Avoid excessive agitation of the liquid with the roller as it may leave bubbles or pinholes in the applied film. Apply coating with a slow steady motion in one direction. Then cross-roll to assist leveling of the applied film. Install coating as evenly as possible. Complete coverage is required to avoid pinholes or voids in the finish coat.

Avoid leaving excessive build up in rougher areas. Thicker than recommended films will not reach the expected hardness.

The recommended wet film thickness (WFT) is 4 mils per coat. The theoretical coverage @ 4 mils WFT is 400 sq.ft./gallon. Coverage will vary according to surface texture and porosity. The application of a minimum of two coats is recommended. At 4 mils WFT the dry film thickness (DFT) is 1.7 mils.

**Re-coating**

Re-coat within the time frame shown under "Curing time" below. After re-coat window has expired, abrade the surface lightly to achieve proper bonding to the next coat. Ensure that the surface is free from contaminants.

**Curing time**

Determine the curing time and recoat window at 50 % relative humidity from the table below. Note that curing time will be longer at lower temperatures and higher humidity.

Temperature	10 C (50 F)	20 C (68 F)	30 C (86 F)
Dry to touch	8 hours	4 hours	2 hours
Re-coat	8 to 24 hours	4 to 18 hours	2 to 12 hours
Full cure	72 hours	48 hours	24 hours

Do not allow general traffic before the coating has fully cured.

**Diluting**

Do not dilute.

**Clean up**

Before PSC 2102 has cured, application equipment can be cleaned with soap and water. After curing, removal may only be achieved by soaking the equipment in xylene.

**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. Coating will yellow and chalk when exposed to direct sunlight.
- Avoid pooling of product during application. Wet film thicker than 6 mils will show lower hardness.
- Facilitate water evaporation from applied coating. Prevent exposure of coating to water during the curing process.
- Do not use PSC 2102 beyond its pot life.
- Do not allow coating to freeze during storage, application or cure.
- Store product cool and dry.
- Seal product containers immediately after use.

**Trouble shooting**

Problem observed Possible causes

Soft coating	Insufficient mixing of components; coating was applied too heavily; coating was allowed to pool; extreme weather conditions; coating was used beyond its pot life.
Fish eyes	Contamination of substrate; improper mixing.
Slow cure	Low product, substrate or ambient temperature; improper mix ratios or mixing; use of thinner in product.
Peeling from substrate	Insufficient surface preparation; hydrostatic water pressure.
Peeling between coats	Past critical re-coat time; contamination between coats.
Whitening	Excessive exposure to moisture from substrate or surface water during drying; Exposure to pooling water after full cure; coating was used beyond its pot life.
Pinholes	Substrate was insufficiently primed before applying the topcoat; outgassing due to warming of the substrate during application or cure.
Bubbling	High temperatures; working product past pot life; improper mixing; overworked the product.

### Slip resistant flooring and coating

Approved aggregate can be embedded into PSC 2102 WB EpoxyCoat to create a durable slip resistant coating providing excellent compressive and tensile strength properties designed for areas requiring a slip resistant finish. These properties are especially applicable in highly oily food processing plants, lobbies and showers.

The engineered slip resistance properties can be met by a selection of various grades of additives. The degree of density of application can be altered for each facility's requirements. Evaluation should be made to determine the right amount of aggregate for the specific needs of the surface.

### Exposure risks

PSC 2102 contains isophorone diamine, propylene glycol monomethyl ether, 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 56 g/L of VOC.

### 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 the product is 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 immediately 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 2102 WB EpoxyCoat is formulated without lead, mercury, asbestos or chromates.

### Maintenance

PSC maintenance products are specifically formulated to protect and maintain the surface of PSC coatings. To clean the surface, use periodically PSC 0150 Cleaner Re-Juvenator. To protect the surface, use regularly PSC 0200 DuraWax-Gloss or PSC 0210 DuraWax-Satin.

**Packaging**

2 gallon kit (1 gallon Part A and 1 gallon Part B)

10 gallon kit (5 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.

**For orders and inquiries from Canada, US and Mexico, call toll free 1-866-793-3503, or fax your orders to PSC's customer service at 403-287-2766.**

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