



DATA SHEET

WS101: WATER-BASED EPOXY

Is a high build, two component, 100% solids epoxy coating system used for applications up to 20 mils and is capable of self-levelling and may be tinted. Its exceptional heat and excellent chemical resistance properties makes the coating suitable for applications in harsh environments, such as humid conditions, without creating a foggy surface.

WS 101 is approved by CFIA (Canadian Food Inspection Agency) if incidental contact should occur in federally and provincially inspected meat/poultry plants.

USES

WS Primer bonds to concrete to become an integral component to the floor of the concrete substrate as it is used on interior applications to waterproof and protect new or existing structures and protect:

- From deterioration of reinforcing steel due to chlorides, acids and other chemicals.
- From various chemicals including: gasoline, aviation fuel, brake fluids, alkalis and solvents.
- Concrete from leakage or moisture intrusion.
- Scaling and spalling.

All the while to prolong the life of a concrete floor and reduce maintenance costs that may arise from unprotected flooring.

FEATURES

- Low odor
- Excellent bond strength
- Long-lasting durability
- Strong chemical resister
- Good vapour permeability
- Good workability
- Smooth, seamless finish



SUGGESTED SYSTEM COMPONENTS

Primer	PSC 2100 or WS 101
Intercoat or Topcoat	WS 101
Alternative Topcoat	PSC 2301, 3101, 3102 or 3121 for increased abrasion resistance

Limitations

- Avoid applying in direct sunlight in times of increased heat as it may result in air bubbles on coating surface, wrinkling, blistering and pinholes.
- Not for exterior use, immersion or applications near moisture.
- Do not apply in temperatures below 10°C/60°F and above 30°C/86°F.
- Do not thin as it will slow down cure time and reduce product quality. Re-coat times will also be affected.
- Do not spray product.

Chemical Resistance Data

Refer to PSC Technical Assistance.

Test Section

Apply WS 101 in an inconspicuous area about 3x3 ft. and examine for proper appearance and adhesion.

Preliminary Floor Inspection and Surface Preparation

Ensure area is clean, stable, dry and at temperatures above 10°C/60°F and below 30°C/86°F for successful application. New concrete must be cured for at least 14 days. Test vapour drive according to ASTM D4263.

Perform following tests if there is any uncertainty to any present curing compound or other coatings on the floor:

- Pour a cup of water on 3 or 4 areas on the floor. If any water bubbles out, it's an indicator that there is no curing compounds or coatings within the floor. If water cohesion is present, it indicates curing compounds or other coatings are present. Remove by chemical or mechanical means.
- Drop muriatic acid on the floor. Acid bubbling indicates a curing compound or any other coating is not present.

Also examine concrete substrate for any present moisture. Permeance of the coating should be 3.5 perms at 4 mils DFT and 1.54 perms at 9 mils DFT. Ensure substrate is dry.



Remove all oil, grease, wax, dirt, laitance and other surface contaminants. Clean concrete by mechanical methods, such as: shot blasting, scarification, sandblasting, and high pressure water blasting.

Remove contaminants by scrubbing with Cleaner Degreaser, follow by scrubbing and rinsing thoroughly. Do not use unbuffered acid or any solvents to remove contaminants. Do not use sweeping compounds to remove dust.

GENERAL DATA

Standard Colors	Clear, 03, 04, 06, 10, 11, 13
Solids	46% (untinted)
VOC	56 g/L
Flash Point	N/A
Finish	Glossy
Mix Ratio	Equal volumes Part A and B
Pot Life	2 hours @ 20°C/68°F
Recommended WFT	4 mils

THEORETICAL COVERAGE

WFT @ 4 mils	400 sq. ft./gallon
DFT @ 4 mils	1.7 mils
Pull Strength	Greater than 300 psi depending substrate

PERMEANCE (ASTM E-96 PROCEDURE A)

9 mils DFT	8.8" 10'8 g/(Pa s m ²) 1.54 perms
4 mil DFT	3.5 perms
Shelf Life	1 year, unopened

Mixing and Tinting

Wear protective gloves and goggles to avoid injury from splashes. Complete all surface preparations prior to mixing Part A and B. Note: Product has limited pot life.



It is highly recommended to use this product with tinting. Measurement accuracy and color consistency, between batches, is important in determining the successfulness of the product. To fully transfer product, scrape container walls until fully emptied. Seal containers after each use. Mix using a jiffy mixer blade and an electric drill at a low speed. Do not hand mix. Keep mixer blades in liquid to avoid air entrapment within the product.

Use PSC 3800 series colorants only. Re-mix colorants prior to use. Use chart below as a guide to typical colorant amounts.

Kit Size	Color 03, 04,06, 13	Color 10, 11
2 Gallon Kit	1 quart	2 quarts
10 Gallon Kit	5 quarts	10 quarts

Prior to use, re-mix Parts A and B and accurately measure required amounts of both parts, using a 1:1 ratio by volume, including colorant. Pour Part A and the colorant into the mixing container and use caution to avoid any air bubble entrapment. Mix for 2-3 minutes. To ensure complete mixing, scrape bottom and sides of mixing container. Pour Part B into the Part A- colorant mixture. Mix for 2-3 minutes. To ensure complete mixing, scrape bottom and sides of mixing container.

Pot Life

Use chart below as a guide to determine pot life. Note: End of pot life is not apparent from the thickening or heating of the Part A and B mixture. Do not use coating past its pot life.

TEMPERATURE	POT LIFE
10°C/60°F	2 hours
20°C/68°F	2 hours
30°C/86°F	1 hour

Application

Wear gloves and goggles to protect from splash injuries. Application and curing time temperatures must be above 10°C/60°F and below 30°C/86°F. Allow for adequate air ventilation during application and cure time to facilitate water evaporation from the coating.



Using a high quality woven 3/8" (10 mm) nap roller, apply mixed coating from a roller tray. Ensure that the roller is suitable for water based coating applications. Use care to avoid excessive agitation of the liquid by the roller as it may leave bubbles and pinholes when film is applied. Apply in a steady and slow motion in the same direction. Cross-roll to assist in levelling applied film.

Ensure coating is applied as evenly as possible. Maximum coverage is required to avoid pinholes or voids in the finished coat. The recommended WFT is 4 mils/coat, giving a theoretical coverage of 400 sq. ft./gallon and a DFT of 1.7 mils. Coverage varies according to surface texture and porosity. A minimum application of 2 coats is recommended. Films thicker than recommended may not reach expected hardness. Avoid leaving excessive build up in rougher surface areas.

Re-coating

Refer to chart under Curing Time. Re-coat within time frames. When re-coat window expires, lightly abrade surface for proper bonding to the proceeding coat. Ensure surface is free of contaminants.

Curing Time

Note: Curing time will be longer at lower temperatures and higher humidity. Do not allow general traffic before a full cure of the coating.

Curing Time and Recoat Window @50% R.H.

Temperature	10°C/60°F	20°C/68°F	30°C/86°F
Dry to Touch	8 hours	4 hours	2 hours
Re-coat	8-24 hours	4-18 hours	2-12 hours
Full Cure	72 hours	48 hours	24 hours

Diluting

Do not dilute.

Clean Up

Prior to curing WS 101, clean equipment using soap and water. After curing, removal may only be achieved by immersing equipment in xylene.



Recommendations

- Always apply test patch in an inconspicuous area to confirm substrate compatibility.
- Interior use only. When exposed to direct sunlight, coating will yellow and chalk.
- WFT thicker than 6 mils will display a decrease in the degree of hardness. Avoid pooling product during application.
- Facilitate water evaporation from applied coating all the while, preventing exposure of water to coating during curing.
- Do not use beyond pot life.
- Do not freeze during storage, application or cure.
- Store at a cool and dry area.
- Seal product immediately after every use.

Slip Resistant Flooring and Coating Create a durable, slip resistant coating by embedding any approved aggregates onto WS 101. Recommended use for in highly oily food processing plants, lobbies and showers. Slip resistance properties varies by additive grades. Degree of density of the application may be altered according to a facility's requirements. Evaluate flooring to determine correct amount of aggregate for surface needs.

Troubleshooting

Below is a list of commonly observed problems during application and possible causes.

- Soft coating— Insufficient mixing of components; heavily applied coating; pooling of coating; extreme weather conditions; application of coating beyond pot life.
- Fish eyes— Substrate contamination; improper mixing.
- Slow cure— Low product, substrate or ambient temperature; wrong mix ratios or mixing; use of thinner on product.
- Peeling from substrate— Surface preparation insufficient; hydrostatic water pressure.
- Peeling between coats— Re-coat time past critical; coat contamination.
- Whitening— Excessive moisture exposure from substrate during curing; exposure to pooling water after full cure; use of coating beyond pot life.
- Pinholes— Insufficiently primed substrate prior to topcoat application; outgassing from warming of substrate during application or cure.
- Bubbling— High temperatures; use of product beyond pot life; improper mixing; overworked product.

Exposure Risks

WS 101 contains iso-hormone diamine, propylene glycol mono methyl ether and other aliphatic polyamines. Skin and eye contact may cause severe burns as it is corrosive. May cause allergic skin reactions and blindness when exposed to eye. Harmful and fatal if ingested, may result in lung damage.



Proposition 65

WS Primer does not deliberately contain any materials listed by the State of California as carcinogenic or known to cause birth defects and other reproductive harms.

VOC Content

A mixture of Part A and Part B results in an overall VOC of 56 g/L.

Precautions

Keep out of reach of children. Avoid any personal contact with product and use gloves and eye protection. If TLV is exceeded or product is applied in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection according to federal, state, provincial and local regulations. Avoid inhalation of vapors. Empty containers may contain hazardous residues. Observe all and any warning labels until container is commercially cleaned or reconditioned.

First Aid

In case of eye contact, rinse for 15 minutes and consult a physician. For skin contact, wash thoroughly with soap and water. In case of ingestion, seek medical aid immediately— refrain from physically expelling product by vomiting. Seek medical aid immediately if inhalation results in persisting physical discomfort or breathing difficulty.

Refer to Material Safety Data Sheet (MSDS) for more information.

Safety

WS 101 is certified to be formulated without lead, mercury, asbestos or chromates.

Maintenance

Clean surface periodically using Cleaner Re- Juvenator. Protect surface by regularly using DuraWax-Gloss or DuraWax-Satin.

Packaging

2 GALLON KIT

1 Gallon Part A

1 Gallon Part B

10 GALLON KIT

5 Gallons Part A

5 Gallons Part B



Warranty Disclaimer

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