

## SP-100 (Solvent Polyurethane)

Preferred Deck's **SP-100** is a two-component, flexible, high solids, UV stable (aliphatic) polyurethane sealer. This high-gloss coating is incredibly impact, abrasion, and scratch resistant. This VOC-compliant product is easy to apply (even in high temperatures) due to its solvent content.

**SP-100** is a durable, chemically resistant sealer that is easy to clean and maintain. This is one component of a floor coating system and serves as the final clear sealer or pigmented version when a **Color Pack** is added.

### EPOXY/POLYURETHANE FLOORING SYSTEMS

Below are the basics for system options. Follow all surface preparation and application guidelines.

#### NO COLOR CHIP SYSTEM

- STEP 1 – **EPOXY PRIME 100**. 1.25 gal kit covers approx. 300 sq ft (240 sq ft/gal.) Overnight dry.
- STEP 2 – **SP-100** with **Color Pack**. 2-gal kit covers approx. 650 sq ft (325 sq ft/gal.)

#### LIGHT/MEDIUM BROADCAST COLOR CHIP SYSTEM

- STEP 1 – **EPOXY PRIME 100**. Overnight dry.
- STEP 2 – **SP-100** with **Color Pack** OR **CS-100** (High Performance Acrylic.) Broadcast chips. For light broadcast, multiply sq ft by .02. Overnight dry.
- STEP 3 – Scape and clean up chips. **SP-100** clear (no Color Pack) OR **RT-Polyaspartic 85** (for quick return to service - vehicular traffic in 2 days instead of 7.)

#### FULL BROADCAST COLOR CHIP SYSTEM

- STEP 1 – **EPOXY PRIME 100**. Overnight dry.
- STEP 2 – **SP-100** with **Color Pack** OR second coat **EPOXY PRIME 100**. Broadcast chips. For full-broadcast, multiply sq ft by .12. Overnight dry.
- STEP 3 – Scape and clean up chips. If not using **RT-Polyaspartic** as final sealer, chips need to be sanded OR flattened with Preferred Deck's **Clear Coat Sealer**. 1 gal for every 300 sq ft. (Extends time - overnight dry).
- STEP 4 - **SP-100** clear (no Color Pack) OR **RT-Polyaspartic 85** (to flatten chips/for quick return to service - vehicular traffic in 2 days instead of 7.)

**Packaging:** 2-gal kit with a 1A : 1B ratio. **Coverage:** Kit approx. 650 sq ft/gal (325 sq ft per gal)

**Available in 4 Standard Colors:** Concrete Gray, Sterling, Wheat and Buff.

For additional colors, use Preferred Deck's **CS-100** (High Performance Acrylic.) If doing a full-broadcast application, realize that chips cover this coating (or use two coats of **Epoxy Prime 100** instead.)

For a slip resistant surface, mix 40 or 60 grit **Resin Sand** into the last coat of sealer to increase slip resistance, or uniformly broadcast silica sand or aluminum oxide into wet final sealer.

## BENEFITS:

- Tough, Flexible, Impact-Resistant Finish
- Highly UV Stable & Chemically Resistant
- Abrasion Resistant & High Gloss Retention
- Easy To Use & Long Working Time (even in high temps)
- VOC Compliant
- Keeps Concrete Sealed & Extends Life of Concrete
- Easy To Maintain and Clean for Years

## COMMON APPLICATIONS:

- Garages
- Patios and Courtyards
- High Traffic Areas
- Warehouse Floors
- Aircraft Hangers
- Automotive Facilities
- Manufacturing Plants

## LIMITATIONS:

- May not be suitable for interior applications due to solvent smell (best for exterior & garage applications.)
- Do not apply **SP-100** directly to concrete/unprimed substrate.
- Solvent polyurethanes by nature do not allow much moisture migration and blush (turn white), so not best around landscaping (or other high-water areas.)
- Do NOT apply around swimming pools (or similar) since can be slippery (even if Grip is used.)
- Do not apply on substrate temperatures under 50°F. Ambient temperature should be at least 60° and rising. Do not apply in extreme heat/direct sun in hot summer months.

## PHYSICAL AND PERFORMANCE PROPERTIES:

MIX RATIO (vol.)	1A : 1B
VOC CONTENT	< 382 g/l
SOLIDS CONTENT (wt.)	65%
GLOSS (60°) ASTM D523	85 - 90
SHORE HARDNESS ASTM D2240	78 - 85 A
ABRASION RESISTANCE ASTM D4060	37 mg loss
ELONGATION ASTM D638	130%
TENSILE STRENGTH ASTM D638	6000 - 6500 PSI
COVERAGE RATE	325 sq ft/gal
RECOMMENDED THICKNESS	5 - 6 mils (wet)
POT LIFE (6 oz) @ 25°C (77°F)	> 60 minutes
WORKING TIME @ 25°C (77°F)	40 minutes
TACK FREE @ 25°C (77°F)	8 - 12 hrs
APPLY <b>SP-100</b> on <b>Epoxy Prime 100</b>	12 - 48 hrs ONLY
RECOAT WINDOW @ 25°C (77°F)	12 - 24 hrs ONLY
LIGHT FOOT TRAFFIC @ 25°C (77°F)	24 hrs
FULL CURE /VEHICULAR TRAFFIC	7 days

\*NOTE: **Cure/Dry Times** vary. Higher temperatures and lower humidity shorten cure time, while lower temperatures and higher humidity lengthen it. **Coverage Rates** vary depending on application technique, film thickness, weather conditions, and porosity of substrate.

## CHEMICAL AND STAIN RESISTANCE:

ASTM D-1308. 24-Hour Immersion

URINE	No Effect
BLOOD	No Effect
WHISKEY	No Effect
BLACK INK	No Effect
BRAKE FLUID	No Effect
DIESEL EXHAUST FLUID (DEF)	No Effect
GASOLINE	No Effect
SKYDROL 500B-4	No Effect

HYDRAULIC FLUID (#83282D)	No Effect
MINERAL SPIRITS	No Effect
ACETONE	Film Softened
XYLENE	Film Softened
MEK	Film Blistered
50% SODIUM HYDROXIDE	No Effect
25% HYDROCHLORIC ACID	No Effect
25% SULPHURIC ACID	No Effect
25% ACETIC ACID	No Effect
25% NITRIC ACID	Film Blistered

**SURFACE PREPARATION:** BEFORE applying primer coat (**Epoxy Prime 100**), concrete must be clean, dry and free of dust, grease, dirt, oil, wax, mold, rust, efflorescence, curing agents, coatings, sealers, bond-breakers or other contaminants. Surface needs to be structurally sound with no loose components with a minimum compressive strength of 3000 psi. Preparation techniques will vary depending on project type, condition of substrate, and contractor preference. Have property owners turn off sprinklers before, during, and after the application process.

Use one or more of the following methods to prepare surface: degrease, grind, acid etch (and neutralize), scrape, sand, pressure wash (minimum 3000 psi), sand blast, shot blast, wet/dry vacuum, and etch with Preferred Deck's eco-friendly **Super Deck**.

A properly prepared concrete surface should have a profile (CSP) of 2-3, have a salt and pepper appearance, and feel rough (like 100 grit sandpaper.) Many methods require industrial-type vacuuming (with xylene wipe) so that surface/concrete pores are free of dust. Surface prep is KEY. Contact us if needed.

For cracks, use compatible repair product. Call for more assistance. Realize that some cracks are often a result of flaws in the concrete, problematic soil conditions, or lack of control joints. In these cases, cracks typically reappear.

**MIXING INSTRUCTIONS:** Mix only amount of material that can be used within 30 minutes. Mix smaller batches in hot weather, using equal parts of A and B (1:1 ratio.) Carefully measure and mix for two full minutes using a slow speed drill, scraping bottom/sides of container. WARNING: Do NOT turn over mixing container onto application area or use/scrape material from the sides of mixing bucket – this material/area will NOT properly set up/cure.

For pigmented version, add entire **Color Pack** (if using a full kit) into bucket before mixing. For partial kits, add approx. 10 oz of **Color Pack** for every combined A & B gallon (128 oz.)

Material is normally applied as is, but it can be thinned with up to 15% MEK. Avoid contamination with moisture. Reseal partially used containers completely after use.

**APPLICATION RECOMMENDATIONS:** **SP-100** is generally applied using a high-quality, low-shed 3/8" or 1/2" nap roller cover (with plastic core.) Heavier films will be glossier - thinner applications will be flatter.

**Epoxy Prime 100** is applied to properly prepared concrete and left to dry overnight. The next day, apply **SP-100**. Recoat windows are critical. **SP-100** MUST be applied to primer coat BETWEEN 12-48 hours ONLY. If longer than 48 hours, **Epoxy Prime 100** MUST be sanded and cleaned before applying **SP-100**.

For the pigmented to clear coats of **SP-100**, the recoat window is even shorter – BETWEEN 12-24 hours ONLY. Sanding MUST be done if after 24 hours to ensure adhesion.

## **APPLICATION INSTRUCTIONS**

Using a dip and roll technique, apply **SP-100** onto tack-free **Epoxy Prime 100**. Keeping a wet edge and crosshatch each section, working your way out of the job. Use a chip brush to cut in edges/joints while rolling. A second person is helpful.

## **AFTER INSTALLATION GUIDELINES**

Area should not be exposed to rain (or water from any source) for at least 48 hours. This may mean watering landscape by hand. Light foot traffic permitted after 24 hours. No vehicular traffic for 7 days. Wet/damp/cold conditions extend all dry/cure times.

## **MISC. NOTES/ WARNINGS/ TROUBLESHOOTING**

- To hide grind/swirl marks from prep, use 100% solids epoxy instead of **Epoxy Prime 100**.
- If outgassing occurs, additional/different primer may be necessary to fill capillaries. Contact us if needed.
- New concrete needs to be cured at least 30 days (possibly longer if wet/damp conditions persist.)
- Make sure there are no underground leaks/issues with high moisture migration, since this is problematic with ALL concrete coatings. When in doubt, cover area with plastic/tape to test slab.
- Most contractors fully grind off previous coatings. At the very least, fully cured, "old" epoxy/polyurethane coatings **MUST** be degreased/cleaned/sanded lightly with 80-100 grit sandpaper (or otherwise mechanically abraded) before recoating, along with thorough vacuuming and xylene wipe.
- Epoxy and polyurethane application, by nature, is not forgiving. Make sure the mixer is detail oriented, understands the procedure, methodically measures, and uses a timer to mix the A & B.
- In general, floor mats can be problematic, so warn property owners. Do not place on coating system for at least 7 days/full cure.
- If experiencing any difficulties, contact us immediately. We are here to help!

**WARNING:** For the most complete information, consult SDS (Safety Data Sheet) before using product. Harmful if swallowed. Avoid contact with eyes and skin. Safety eyewear and gloves are recommended. Avoid breathing mist or vapors. Use with adequate ventilation. Wear a MSHA/NIOSH approved cartridge-type respirator during application and mixing.

**FIRST AID:** INGESTION: Obtain medical attention at once. EYE CONTACT: Flush with clean water for 15 minutes and obtain medical attention. INHALATION: Remove to fresh air and obtain medical attention. SKIN CONTACT: Wash with soap and water. Obtain medical attention if irritation is severe or persistent.

**HANDLING PRECAUTIONS:** Material is combustible. Extinguish all flames, pilot lights and electric motors until all vapors are gone and the coating is hard. The vapor is harmful. Use only with adequate ventilation/or appropriate cartridge-type respirator. Avoid contact with skin; wear protective gloves. Read Safety Data Sheet before using.

**CLEAN UP:** Isopropyl alcohol, MEK or acetone.

**STORAGE:** Unused, unmixed material with lids tightly closed. Keep indoors, away from extreme conditions.

**DISPOSAL:** Refer to SDS and comply with local, state, and federal regulations.

**MOISTURE VAPOR EMISSIONS/ ALKALINITY PRECAUTIONS:** All interior concrete floors not poured over an effective moisture vapor retarder are subject to possible moisture vapor transmission and related high levels of alkalinity that may lead to blistering and failure of the coating system. It is the coating applicator's responsibility to conduct calcium chloride and relative humidity probe testing to determine if excessive levels of vapor emissions or alkalinity are present before applying

any coatings. Preferred Deck Systems and its sales agents will not be responsible for coating failures due to undetected moisture vapor emissions or related high levels of alkalinity.

**SLIP AND FALL PRECAUTIONS:** OSHA and the American Disabilities Act (ADA) have now set enforceable standards for slip-resistance on pedestrian surfaces. The current coefficient of friction required by ADA is .6 on level surfaces and .8 on ramps. Preferred Deck highly recommends the use of an angular slip-resistant in-field additive, such as Resin Sand, silica sand, or aluminum oxide in all coatings/flooring systems that might be exposed to wet, oily or greasy conditions. HOWEVER, no epoxy, polyurethane, or polyaspartic products should EVER be used around an area that is regularly exposed to water, such as swimming pools or walkways that are often exposed to water, since no amount of anti-slip products will make these areas safe. It is the contractor and end users' responsibility to provide a flooring system that meets current safety standards. Preferred Deck (or its sales agents) will NOT be responsible for injury incurred in a slip and fall accident.

**WARRANTY INFORMATION:** Preferred Deck products have a limited two year warranty with licensed contractors only, and it is non-transferable. Property owners or unlicensed individuals use at own risk. All warranties will be investigated with the cooperation of the licensed installer of the product ONLY. This warranty refers to such failures as flaking, peeling, chipping and is limited by the specific items listed below. The end-user may be present during this investigation process, but no investigation will occur directly with the end-user (without the presence of the contractor.) Preferred Deck will not under any circumstance be liable for damages in excess of the purchase price of the products used on the job. Preferred Deck is not liable for consequential or secondary damages resulting from the failure of a warranted item or the failure to provide service due to conditions beyond its control. LIMITATIONS ARE DAMAGES CAUSED BY: 1. The customer due to neglect, abuse, or lack of reasonable care. 2. Settling due to expansive soil, fill dirt movement, drainage, or alkali-silica reaction. 3. Acts of God. 4. Improper installation.

**DISCLAIMER AND LIMITATION OF LIABILITY:** To the best of our knowledge, the information contained herein is accurate. The warranty described herein shall be in lieu of any other warranty, express or implied, including but not limited to, any implied warranty of merchantability or fitness for a particular purpose. There are no warranties that extend beyond the description on the face hereof. The Buyer's sole and exclusive remedy against Seller shall be for the replacement of the products or refund of the purchase price in the event that a defective condition of the products should be found to exist. No other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available to the Buyer. Buyer must give Seller notice in writing of any alleged defect covered by this warranty (together with all identifying details, including the Product Code(s), description, and date of purchase) within thirty (30) days of the discovery of the defect. Final determination whether the use infringes any patents, is the sole responsibility of Buyer.