

**PART A**  
**PART B**
**GP3770A01**  
**GP3770B01**
**RESIN**  
**HARDENER**

Revised: December 4, 2023

## PRODUCT INFORMATION

### PRODUCT DESCRIPTION

**RESUFLO<sup>TM</sup> RCE** is a two-component, rapid cure high-solids epoxy designed for experienced applicators.

#### Advantages:

- LEED® CREDIT - LEED Green Building Certification Program credits may be available:
  - Indoor Environmental Quality
  - 4.2 Low-Emitting Materials, Paint & Coatings
- Reduces downtime at ambient conditions
- Reasonable cure time at cooler conditions
- Reduced solvent means less evaporation and less waste
- Complies with SCAQMD VOC regulations - <100 g/L

### TYPICAL USES

- Primer and Build Coat
- Seed coat for full broadcast flake and quartz floors

### GENERAL INFORMATION

#### OPTIONS:

Colors: Use colorants at a rate of one unit per 3-gallon (11.34 litres) mix of Resuflo RCE. Standard Colorants--White, Yellow and Light Gray will not impart total hide. Use these colorants at a rate of two units per 3-gallon (11.34 litres) mix. Similar colorants also may not hide as well. Refer to Color Selection Guide or consult Technical Support. (White and Light Gray are only recommended if topcoating with a non-yellowing urethane. Due to possible color inconsistencies, Battleship Gray and Medium Gray colorants are only recommended if topcoated.) UV/Light Stability: This product is not light stable and will yellow/amber more quickly than a standard epoxy. Resuflo RCE should not be used for sealing and topcoating decorative floors or as a standalone coating.

#### LIMITATIONS:

Contamination (Fisheyes, Adhesion): Products may fisheye and/or have reduced adhesion if oil, silicones, mold release agents or other contaminants are present.

Appearance: The reduced work time may not allow the release of entrained air and/or Resuflo RCE to level as well as a standard epoxy resulting in an orange peel texture that a thin-mil coating will not hide.

Blush Effect: Resuflo RCE may exhibit amine-blush if applied at relative humidity >70%. Amine-blush will affect adhesion quality of additional coatings applied on top. Consult Technical Support for further questions about amine-blush.

### ORDERING INFORMATION

**Packaging:** 5 gallon (18.9L) filled pails, and 55 gallon (208L) filled drums

### PRODUCT CHARACTERISTICS

<b>Volume Solids:</b>	≥ 90.79%, mixed @ 10 mils or greater ASTM D2369, Method E
<b>Mix Ratio:</b>	2A:1B by volume
<b>VOC (EPA Method 24):</b>	<100 g/L ; 0.83 lb/gal @ 10 mils (0.25 mm) or greater
<b>Density (lb/gal / kg/L):</b>	A - 9.56 / 1.14 ; B - 8.39 / 1.01 A/B - 9.12 / 1.09

### PRODUCT CHARACTERISTICS (CONT'D)

#### Recommended Spreading Rate:

To meet <100 g/L VOC per EPA Method 24, Resuflo RCE must be applied using one or the other minimum mil thicknesses shown below:

- A minimum of 10 mils (0.25 mm) in one single coat.  
10 mils (0.25 mm) -- 160 ft² (14.86 m²) coverage per gallon (3.78 litres) wet/dry film
- A minimum of 11 mils (0.28 mm) total combined thickness applied in two coats within 7 hours of each other, with neither coat being applied less than 3 mils (0.08 mm).  
3 mils (0.08 mm) -- 535 ft² (49.70 m²) coverage per gallon wet/dry film  
8 mils (0.20 mm) -- 200 ft² (18.58 m²) coverage per gallon wet/dry film

#### Drying Schedule:

	@ 50°F/10°C 50% RH	@ 77°F/25°C 50% RH	@ 90°F/32°C 50% RH
<b>Tack Free:</b>	17.5 hours	3.25 hours	1.5 hours
<b>Dry Hard:</b>	24 hours	5 hours	2.75 hours
<b>Foot Traffic:</b>	36 hours	12 hours	10 hours
<b>Gel Time / Pot Life:</b>	Untinted: 58 min. Tinted: 61 min.	Untinted: 8 min. Tinted: 8 min.	Untinted: 7 min. Tinted: 7 min.
<b>Recoat Window:</b>	Maximum: Up to 24 hours for all conditions		

**Shelf Life:** 24 months, unopened.  
Store indoors at 65°F (18°C) to 90°F (32°C).

**Reducer:** No thinning recommended.

### PERFORMANCE CHARACTERISTICS

Test Name	Test Method	Results*
<b>Adhesion to Concrete</b>	ASTM D7234	Untinted and Tinted, @ 10 mils, 7 day cure: A/B - >480 psi (max register)
<b>Compressive Strength</b>	ASTM D695	Untinted (7 day cure): 8,033 psi Tinted (7 day cure): 7,967 psi
<b>Flexural Strength</b>	ASTM D790	Untinted @ 10 mils, 7 day cure: No Break. Maximum Flexural Stress: 16.9 ± 0.2 MPa Tinted @ 10 mils, 7 day cure: No Break. Maximum Flexural Stress: 13.1 ± 0.5 MPa
<b>Percent Elongation</b>	ASTM D2370	Untinted @ 10 mils, 7 day cure: 69.7% Tinted @ 10 mils, 7 day cure: 77.0%
<b>Shore D Hardness</b>	ASTM D2240	80-85 @ 0 sec 75-80 @ 15 sec
<b>Tensile Strength</b>	ASTM D2370	Untinted @ 10 mils, 7 day cure: 2,065 psi Tinted @ 10 mils, 7 day cure: 2,139 psi
<b>Thermal Stability / Heat Resistance, Tested on steel panel (5 hours at 158°F)</b>	MIL-D-3134J, Section 4.6.3	Untinted and Tinted, 7 day cure: No slip/flow, no softening or change in appearance
<b>Water Absorption (24-hour immersion)</b>	ASTM D570	Untinted @ 10 mils, 7 day cure: 3.92% Gray @ 10 mils, 7 day cure: 4.06%

\*results are based on conditions at 77°F (25°C)

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### **SURFACE PREPARATION**

**CHECK THE CONCRETE:** Concrete must be structurally sound and free of curing membrane, paint or other sealer. If you suspect that the concrete has been previously sealed, call technical support for further instructions.

**CHECK FOR MOISTURE:** Concrete must be dry before application of this floor coating material. Concrete moisture testing must occur. In-situ relative humidity testing is recommended. Readings must be below 75% relative internal concrete humidity. Test methods can be purchased at [www.astm.org](http://www.astm.org), see F2170, or follow manufacturer's instructions. If moisture issues are present, the use of a moisture mitigation system may be a consideration. Please call Technical Support for further information / instructions.

**NOTE:** Although testing is critical, it is not a guarantee against future problems. This is especially true if there is no vapor barrier or the vapor barrier is not functioning properly, and/or you suspect you may have concrete contamination from oils, chemical spills or excessive salts.

**CHECK THE TEMPERATURE AND HUMIDITY:** Floor temperature and materials should be between 65°F (18°C) and 90°F (32.2°C). Humidity must be less than 70% at time of application as it may result in amine-blush. Amine-blush can affect adhesion quality of additional coatings applied on the top. Consult Technical Support for further questions about amine-blush. DO NOT coat unless floor temperature is more than five degrees over the current, local dew point.

### **APPLICATION EQUIPMENT**

- Protective clothing
- Jiffy mixer blade
- 80 grit sandpaper
- 100 grit sandpaper
- Slow speed drill (500 rpm or less)
- 18-24" flat rubber squeegee
- 18-24" notched rubber squeegee
- Roller assembly (18")
- Spiked shoes
- Shed resistant 3/8" nap roller\*
- 120 grit sandpaper

\*NOTE: Using thicker nap rollers reduces the work time, especially at warmer temperatures.

**ASSEMBLE EQUIPMENT:** Due to the limited pot life of the material, all application equipment, etc. should be ready for immediate use. (Clean roller with tape to remove any residual lint.)

### **RECOAT APPLICATION**

If recoating a previously existing floor coating, thoroughly inspect coating to make sure it is bonded well to the concrete. The presences of blisters and peeling may be evidence of high moisture or contamination problems in the concrete. If the existing coating is a concrete sealer, paint, or curing membrane, then it must be fully removed before coating with Resufloor RCE. Refer to "Preliminary Floor Inspections" section above for more details. Thorough floor preparation must be completed before recoating with Resufloor RCE. Sand existing floor coating fully to a uniform dull appearance using 80 grit sandpaper. The ability to see individual scratch marks is an indication that sanding is not adequate. Scrub with detergent and rinse with clean water before coating and tack rag to remove fine dust.

### **RECOAT APPLICATION (CONT'D)**

When recoating with Resufloor RCE, apply a minimum 10 mils, ensuring variations in floor surface texture and profile will be covered. Resufloor RCE is not designed to be use as a standalone coating and should be coated over with a different Sherwin-Williams epoxy or urethane. For mixing and application instructions of Resufloor RCE, refer to Bare Concrete Application Step #2. For applying coatings on top of the Resufloor RCE, refer to the section regarding "Applying Additional Coatings" on page 3.

### **BARE CONCRETE PREPARATION OPTIONS**

Ensure concrete is free of dirt, grease, oil or other contaminants. Certain types of contaminant may interfere with coating adhesion and cause fisheyes or defect in the coating. Scrub with detergent, rinse with clean water, and allow to fully dry.

Concrete Preparation Options for Thin to Medium Film Applications

**Diamond Grind:** (results of diamond grinding may vary depending on technique and the hardness of the concrete. Additional mils may be required). Sweep to remove large debris and vacuum to remove fine dust.

**Light Blast:** Use magnetic broom to remove excess shot, sweep to remove large debris and vacuum to remove fine dust.

Concrete Preparation options for Thick-Film Applications

**Steel Shot Blast:** Use magnetic broom to remove excess shot, sweep to remove large debris and vacuum to remove fine dust. **Scarify:** Sweep to remove large debris and vacuum to remove fine dust.

**Filling Joints:** Depending on the preference of the facility owner, joints may or may not be filled. If the joints are filled, non-moving joints, i.e. contraction or control joints, can be hard filled with thickened epoxy or with a semi-rigid joint filler such as Resufloor 3580. Construction joints less than one inch wide may also be filled with Resufloor 3580. Isolation or expansion joints must be filled with a flexible material designed for this purpose. Coating applied over filled joints may crack if there is concrete movement.

### **BARE CONCRETE APPLICATION**

To minimize outgassing bubbles on bare concrete, it is recommended that Resufloor RCE be applied in two steps. Apply the first coat of the primer with at least 3 mils (535 ft<sup>2</sup>) coverage per gallon wet/dry film.

#### **APPLICATION STEP #1**

Before use, PREMIX Resufloor RCE Part A in the product container using a Jiffy mixer blade and slow speed drill to ensure a uniform product. From the product container, measure out 2-parts by volume of Resufloor RCE Part A into a measuring container. Then, pour the measured Part A into a mixing pail.

From the Resufloor RCE Part B product container, measure out 1-part by volume of Resufloor RCE Part B into a measuring container that is separate from the one used with the Part A. Then, add the measured Part B to the Part A already in the mixing pail. **POTLIFE:** Mix only enough material which can be applied within the work time (time between the addition of Part B to Part A and the completion of all application actions). Check the following chart for work times at various temperatures.

APPROXIMATE WORK TIME (minutes) - °F (°C):

65 (18.3)	70 (21.1)	75 (23.9)	80 (26.7)	90 (32.2)
15	10	<10	NR	NR

NR = Not Recommended

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### BARE CONCRETE APPLICATION (CONT'D)

MIX FOR 1 MINUTE using a Jiffy mixer blade and slow speed drill. (Failure to do so could result in lower/diminished coating properties.)

IMMEDIATELY POUR ALL OF THE MIXED MATERIAL onto the floor in a single bead.

PUSH THE FLAT SQUEEGEE at an even speed with down pressure. The squeegee should be pushed to apply maximum pressure and therefore the thinnest coat.

START THE SECOND AND REMAINING PASSES by pushing material parallel to the first stroke. Hold the bead of material near the center of the bar and push at an even speed with slight down pressure. NOTE: Epoxy applied thin may "bridge" holes and cracks momentarily before soaking in—make sure the previously squeegeed area is overlapped (halfway).

To Reduce Outgassing Bubbles, it is best to wait until the primer has set up enough to walk on before applying the second coat. Approximate "walk-on" times are listed below:

APPROXIMATE WALK-ON TIME (minutes) - °F (°C):

65 (18.3) 70 (21.1) 75 (23.9)  
7 5 <5

If the second coat is not applied within 7 hours, coating VOC may exceed 100 g/L. If it is not coated within 24 hours, it must be thoroughly sanded to ensure proper adhesion of additional coats. See section "Sanding Requirements" for additional information.

#### APPLICATION STEP #2

Repeat Mixing procedure note above in Step #1. Adjust mix quantity to match the desired coverage rate. Step #2 requires back-rolling to obtain a uniform coverage rate. Apply a minimum of 8 mils (0.20 mm) in Step #2 to cover up remaining texture differences on the floor. Note: The total combined thickness of step #1 and step #2 should not exceed 35 mils (0.89 mm).

IMMEDIATELY POUR ALL OF THE MIXED MATERIAL onto the floor in a single bead.

Use a notched squeegee to spread the coating out over the floor, using the same method noted for Step #1.

\*1/16" notched squeegee to apply 10-15 mils (0.25-0.38 mm)

\*1/8" notched squeegee to apply 15-20 mils (0.38-0.51 mm)

\*1/4" notched squeegee to apply more than 20 mils (0.51 mm)

\*These guidelines were arrived at by using new squeegees on smooth concrete with little applied pressure. The application rate is affected by worn squeegees, applied pressure and texture of the concrete.

Immediately after the Resufloor RCE is spread out and there is room to roll, a second person will BACKROLL THE MATERIAL with a 3/8" roller to a smooth and uniform appearance.

Resufloor RCE is not designed to be a standalone coating and should be coated over with a Sherwin-Williams urethane or epoxy. With the exception of Resutite HPS 100, Resufloor RCE can be coated over without sanding the floor within 24 hours of last Resufloor RCE application when cured in the range of 65-80°F (18-27°C). NOTE: This is a Tennant solution only, DO NOT try this with competitive epoxies.

If applying Resutite HPS 100, the floor must be sanded before installation regardless of the recoat window to obtain proper adhesion and appearance.

### BARE CONCRETE APPLICATION (CONT'D)

After 24 hours of recent application, Resufloor RCE must be sanded if applying additional coats of Sherwin-Williams urethanes or epoxies. We recommend thorough sanding with a swing-type buffer so that multiple scratch marks cause an obvious gloss loss on all areas (depressions will remain shiny), and the floor is uniformly dulled. The ability to see individual scratch marks is an indication that sanding is not adequate.

### MAINTENANCE

Allow floor coating to cure at least one week before cleaning by mechanical means (e.g., sweeper, scrubber, disc machine).

Care: Proper maintenance will increase the life and help maintain the appearance of your new Sherwin-Williams floor coating. Sweep and scrub your new coating regularly, as dirt and dust are abrasive and can quickly dull the finish, decreasing the life of your coating. Remove spills quickly as certain chemicals may stain and could possibly permanently damage the finish.

Use soft nylon brushes or white pads on your new floor coating. Any brush more abrasive than a soft nylon or white pad can cause premature loss of gloss.

Caution: Avoid scratching or gouging the surface. All floor coatings will scratch if heavy objects are dragged across the surface.

Do not drop heavy or pointed items on the floor as this may cause chipping or concrete popouts in the case of a weak cap.

Rubber burns from quick stops and starts can heat the coating to its softening temperature, causing permanent marking.

Repair: Repair gouges or scratches or chip outs as soon as possible to prevent moisture or chemical contamination.

### TINTING

Only tint with HPF Universal Colorants. Do not tint with GIS colorants. Use five pints of colorant per 15-gallon mix of Resufloor RCE for most colors and ten pints per 15-gallon mix of Resufloor RCE for White, Bright Yellow, Light Gray, and Rotunda Red. (White and Light Gray are only recommended if topcoating with a non-yellowing urethane).

### SAFETY

Refer to the SDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

### DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

### WARRANTY

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