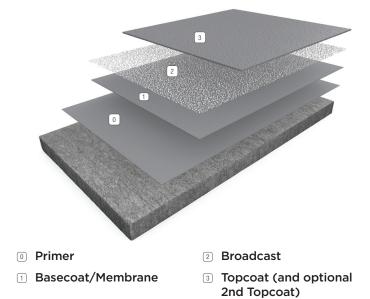
# SHERWIN-WILLIAMS.

# SYSTEM GUIDE

# **RESUDECK<sup>™</sup> III**

Sherwin-Williams Resudeck III is an elastomeric, moderate to heavy-traffic decking system for new or old concrete in need of waterproofing and/or repair. The system is comprised of a primer, followed by a unique elastomeric urethane basecoat/membrane that receives a sand broadcast at a specific point in its curing process, enabling a desirable stratified result. Thus, the single basecoat/membrane application cures into two distinct coating layers - a resin-only layer below and a sand-enriched layer above. This is then followed by an aliphatic, UV-stable polyurea topcoat and optional second topcoat. The three-coat system helps protect substrates against spalling, freeze/thaw damage and typically encountered chemicals. Resuflor III is a proven system suitable for use on concrete, plywood and metal surfaces.



## **BENEFITS**

- Excellent durability; long usable life
- Outstanding thermal stability in extreme temperatures
- Expands/contracts with normal structural movements
- UV-stable topcoat offers consistent color over time
- Quick return to service

## USES

- Walkways and breezeways
- Balconies and terraces
- Parking garages and roof decks
- Mezzanines and mechanical rooms
- Multi-level facilities; over occupied spaces

## **TYPICAL PHYSICAL PROPERTIES**

Shore A Hardness	Resudeck FHS = 60 ± 5	
ASTM D2240	Resudeck FLA = 85 ± 5	
Tear Resistance, Die C	Resudeck FHS = 250 ± 25 pli	
ASTM D624	Resudeck FLA = 300 ± 10 pli	
Tensile Strength	Resudeck FHS = 1350 ± 150 psi	
ASTM D412	Resudeck FLA = 3200 ± 10% psi	
Ultimate Elongation	Resudeck FHS = $675 \pm 10\%$	
ASTM D412	Resudeck FLA = $450 \pm 10\%$	
Water Absorption	Resudeck FHS = 0.05% by weight	
ASTM D471	Resudeck FLA = 1.30% by weight	

High Solids Content ASTM C957 Pass

### **INSTALLATION**

Sherwin-Williams High Performance Flooring materials shall only be installed by approved contractors. The following information is to be used as a guideline for the installation of the Resudeck III. Contact the Sherwin-Williams Technical Service Department for assistance prior to application.

#### SURFACE PREPARATION - GENERAL

Sherwin-Williams systems can be applied to a variety of substrates if the substrate is properly prepared. Preparation of surfaces other than concrete will depend on the type of substrate, such as wood, concrete block, quarry tile, etc. Should there be any questions regarding a specific substrate or condition, please contact the Sherwin-Williams Technical Service Department prior to starting the project. Refer to Surface Preparation Form G-1.

#### SURFACE PREPARATION - CONCRETE

Concrete surfaces shall be abrasive blasted to remove all surface contaminants and laitance. The prepared concrete shall have a surface profile depending upon the system selected. Refer to Form G-1.

After initial preparation has occurred, inspect the concrete for bug holes, voids, fins and other imperfections. Protrusions shall be ground smooth while voids shall be filled with a system-compatible filler. For recommendations, consult the Sherwin-Williams Technical Service Department.

## TEMPERATURE

Throughout the application process, substrate temperature should be 60-90°F. Substrate temperature must be at least 5°F above the dew point. Applications on concrete substrate should occur while temperature is falling to lessen offgassing. The material should not be applied in direct sunlight, if possible. Protect material from freezing prior to installation.

# APPLICATION INFORMATION

VOC MIXED	APPLICATION STEP	MATERIAL	MIX RATIO	THEORETICAL COVERAGE	PACKAGING
<100 g/L	Primer	Resudeck FLP/E	Pre-measured kit	300 sq ft/gal	10 gals
<55 g/L	Basecoat/Membrane	Resudeck FHS	Pre-measured kit	30-50 sq ft/gal	5 gals
0 g/L	Broadcast	16-30 Mesh Silica Sand	N/A	30 lbs/ 100 sq ft	Varies
<60 g/L	Topcoat	Resudeck FLA	Pre-measured kit	80 sq ft/gal	4.4 gals
<60 g/L	Optional 2nd Topcoat	Resudeck FLA	Pre-measured kit	125 sq ft/gal	4.4 gals

## **GENERAL PRODUCT INFORMATION**

#### OPTIONS

Resudeck Systems are available in Light Gray, Medium Gray, Dark Gray and White. For a clear elastomeric coating product, see Resudeck FLA Clear.

#### LIMITATIONS

Concrete must exhibit 3000 psi minimum strength. Concrete surfaces to be coated must be free of loose particles and shall be without ridges, projections, voids and concrete droppings that would be mechanically detrimental to coating application or function.

New concrete must be cured for 28 days.

Uncured materials are sensitive to heat and moisture.

## **PRIMER-RESUDECK FLP/E**

**COVERAGE RATE:** 1 gallon of Resudeck FLP/E will cover:

300 square feet at 5.3 mils wet/dry film

**NOTE:** DO NOT apply Resudeck FLP/E over the Resudeck FLT tape.

**PREMIX PART A AND PART B** using a Jiffy<sup>®</sup> mixer blade and slow-speed drill to ensure materials are homogeneous. **NOTE:** Part A is dark green in color.

**COMBINE AND MIX EQUAL AMOUNTS OF PARTS A & B** by volume. Use separate measuring containers and pour into a mixing pail. Mix only what can be applied in 30 minutes.

**NOTE:** Uncured Resudeck FLP/E is very sensitive to heat and moisture. Higher temperatures and/or high humidity will significantly accelerate the cure time. Low temperatures and/ or low humidity will extend the cure time.

**MIX FOR 2 MINUTES** using a Jiffy® mixer blade and slow speed drill. (Failure to do so could result in lower/diminished coating properties.) Pour into application tray.

**APPLY RESUDECK FLP/E** at the rate of 300 square feet/ gallon with an airless sprayer. DO NOT puddle material. For proper appearance and development of physical properties, it is crucial that material is not applied above or below this rate. A 3/8 inch nap phenolic resin core roller may also be used. Dip the roller in the coating and lightly roll out excess in the application tray. Apply two 8- to 10-foot-long paths on the concrete, making one stroke left to right and one right to left. Rewet the roller and apply two more paths adjacent to the first pair. Rewet the roller and apply a third pair adjacent to the second.

SPREAD THE MATERIAL evenly with V-shaped cross passes.

MAKE SURE THE FLOOR HAS JUST ENOUGH COATING

**TO COVER EVENLY.** Dry roll to remove any excess material. Excess material will cause the floor to dry unevenly and could cause the floor to blister, especially in high humidity. Insufficient material will cause the floor to look non-uniform.

**LEVEL THE AREA** with straight passes that cross the initial material paths.

#### ALLOW RESUDECK FLP/E TO BECOME THUMBPRINT TACKY

before proceeding to Basecoat Application-Resudeck FHS (low VOC). Primer must be coated within 2-4 hours of becoming dry.

Seal all cracks and joints flush with PolyTuff PTS E-101 Joint Sealant.

Apply Resudeck FLT Tape to joints and cracks and use putty knife to press firmly in place.

**NOTE:** If the deck requires excessive crack and joint work, it may be advisable to prime only the areas that will receive the Resudeck FLT Tape, complete the joint work, and then prime the rest of the deck to ensure you do not miss the window for applying the Resudeck FHS (low VOC). On surfaces roughter than CSP-3, use a fabric tape in place of the Resudeck FLT Tape. On surfaces roughter than CSP-3, use a fabric tape in place of the Resudeck FLT Tape.

**NOTE:** If the Resudeck III System is to be applied over an existing system, use Resudeck FLP/U. See appropriate product data sheet or call Sherwin-Williams Technical Support.

### **BASECOAT/MEMBRANE-RESUDECK FHS**

**COVERAGE RATE:** 1 gallon of Resudeck FHS will cover:

30-50 square feet at 32-53 mils wet/dry film.

**PREMIX** using a Jiffy<sup>®</sup> mixer blade and slow-speed drill. (This is required.)

MIX THOROUGHLY UNTIL A HOMOGENEOUS MIXTURE AND COLOR ARE OBTAINED. Use care not to allow the entrapment of air into the mixture. Divide the 5-gallon pail into two 2-1/2-gallon units.

#### WORKING WITH ONE OF THE 2-1/2-GALLON UNITS AT A TIME, ADD 2-1/2 QUARTS OF WATER AND MIX until water disappears into coating. **NOTE:** Using warm water in the winter and cool water in the summer will help increase workability.

Catalyst can be added to Resudeck FHS to decrease cure times. See guidelines below.

Over 85°F: None needed

70°F: Add 1/2 vial per 2-1/2 gallons

Do not use more than 2 vials per 2-1/2 gallons.

If catalyst is used, first add the water to the Resudeck FHS and then add the catalyst before starting to mix.

**IMMEDIATELY POUR ALL OF THE MIXED MATERIAL** onto the floor in a single bead. **NOTE:** The use of spiked shoes will allow freedom of movement on the wet floor. **CAUTION:** The surface will be slippery.

**PUSH THE 30-50 MIL NOTCHED SQUEEGEE** at an even speed with down pressure to spread the material.

**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.

**BACKROLL THE MATERIAL** with a 3/8-inch nap roller for a smooth, uniform appearance. Backrolling is required to even out squeegee lap marks and the coating mil thickness.

## **BROADCAST - SILICA SAND**

ALLOW RESUDECK FHS TO THICKEN UNTIL IT CAN BE BROADCAST WITH 16/30 MESH SILICA SAND WITHOUT THE SAND SINKING INTO THE MEMBRANE. Time for thickening is dependent on atmospheric conditions but should be

manipulated by using a combination of catalyst and water temperature to average approximately 45 minutes. The amount of sand used will vary. (Normal usage is 30 pounds. per 100 square feet.) **NOTE:** It is critical that the Resudeck FHS be fully broadcasted, as otherwise fisheyes may occur in the topcoat of Resudeck FLA.

WHEN THE RESUDECK FHS IS STIFF ENOUGH TO SUPPORT THE WEIGHT OF THE INSTALLER WITHOUT DAMAGING THE COATING OR WHEN COATING IS DRY (approximately 3-4 hours), remove loose aggregate.

At 77°F and 50 percent relative humidity, allow coating to cure a minimum of 2-4 hours before proceeding to subsequent coats. To obtain proper adhesion between coats, it is imperative that recoating be done within 24 hours.

## **TOPCOAT - RESUDECK FLA**

**NOTE:** For decorative applications use Resudeck FLA Clear. See appropriate product data sheet.

**COVERAGE RATE:** 1 gallon of Resudeck FLA will cover: 80 square feet at 20 mils wet/dry film

PREMIX PART A using a Jiffy® mixer blade and slow-speed drill.

ADD PART B AND MIX THOROUGHLY UNTIL A HOMOGENEOUS MIXTURE AND COLOR ARE OBTAINED. Use care not to allow the entrapment of air into the mixture.

**IMMEDIATELY POUR ALL OF THE MIXED MATERIAL** onto the floor in a single bead. **NOTE:** The use of spiked shoes will allow freedom of movement on the wet floor. **CAUTION:** The surface will be slippery.

**PUSH THE FLAT SQUEEGEE** at an even speed with down pressure to spread the material.

**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.

**BACKROLL THE MATERIAL** with a 3/8-inch nap roller for a smooth, uniform appearance. Backrolling is required to even out squeegee lap marks/the coating mil thickness.

**BROADCAST ADDITIONAL AGGREGATE AS NEEDED** to cover any bare or insufficient aggregate placement.

# **OPTIONAL 2ND TOPCOAT - RESUDECK FLA**

Ramps, turn radii and drive lanes typically require two coats to increase durability. Some applications may also require two coats to meet project specifications. Using the "rain" method, broadcast #16 aluminum oxide at a rate of 1-2 lbs per 100 sq.ft. **DO NOT BACKROLL.** 

# **IF SECOND COAT IS REQUIRED, REPEAT THE STEPS ABOVE** for mixing/application instructions.

COVERAGE RATE: 1 gallon of Resudeck FLA will cover:

125 square feet at 12.8 mils wet/dry film

At 77°F and 50 percent relative humidity, allow coating to cure a minimum of 2-4 hours before proceeding to subsequent coats. To obtain proper adhesion between coats, it is imperative that recoating be done within 24 hours. If more than 24 hours pass between coats, reprime with Resudeck FLP/U.

ALLOW 24 HOURS BEFORE PERMITTING LIGHT PEDESTRIAN TRAFFIC AND AT LEAST 72 HOURS BEFORE PERMITTING HEAVY PEDESTRIAN OR VEHICULAR TRAFFIC ONTO THE FINISHED SURFACE.

## **CLEANUP**

Clean up mixing and application equipment immediately after use. Use toluene or xylene. Observe all fire and health precautions when handling or storing solvents.

## SAFETY PRECAUTIONS

Refer to the safety data 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.

# **MATERIAL STORAGE**

Store materials in a temperature-controlled environment of 40-90°F and out of direct sunlight. Keep resins, hardeners and solvents separated from each other and away from sources of ignition.

## MAINTENANCE

Occasional inspection of the installed material and spot repair can prolong system life. For specific information, contact the Sherwin-Williams Technical Service Department.

# DISCLAIMER

The information and recommendations set forth in this document 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 www.sherwin-williams.com/resin-flooring to obtain the most recent product data information and application instructions.

# WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams.

NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

#### THE SHERWIN-WILLIAMS DIFFERENCE

Sherwin-Williams High Performance Flooring delivers world-class industry subject matter expertise, unparalleled technical and specification service, and unmatched regional commercial team support to our customers around the globe.

## **United States & Canada**

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