# SHERWIN-WILLIAMS.

## SYSTEM GUIDE

## RESUFLOR<sup>™</sup> PERFORMANCE HTS

**Sherwin-Williams Resuflor Performance HTS** 

is a high traffic surface that offers outstanding durability. The system is comprised of a highsolids epoxy applied at 3 to 5 mils as a primer and 7 to 13 mils as a build coat. The topcoat is a light-stable, chemical resistant urethane with a satin finish.



BENEFITS

- Provides long-lasting concrete protection
- Topcoat lasts twice as long as standard urethanes
- Light stable over the expected life of the coating
- Available in a variety of colors
- Slight texture of satin finish helps improve safety
- Low odor installation

#### USES

- Aerospace hangars
- Vehicle maintenance shops
- Packaging, assembly and production areas
- Warehouse and distribution operations
- Pharmaceutical manufacturing
- Laboratories and clean rooms
- Healthcare and educational facilities

## **TYPICAL PHYSICAL PROPERTIES**

Abrasion Resistance	18 mg/loss
ASTM D 4060, CS-17 Wheel,	Result based on independent
1,000 cycles	Iab testing of Resutile™ HTS
Adhesion	450 psi
ASTM 4541	concrete failure
Adhesion	732 psi
ASTM 7134	concrete failure
Flammability ASTM 4366	182 mm/min
Coefficient of Friction - COF James Friction Tester ASTM 2047	0.63

Shore D Hardness ASTM D 2240

80-85 @ 0 sec | 75-80 @ 15 sec

## **INSTALLATION**

The following information is to be used as a guideline for the installation of the Resuflor Performance HTS. 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 equal to CSP 1-3. Refer to Form G-1.

After initial preparation has occurred, inspect the concrete for bug holes, voids, fins and other imperfections. Excessive surface profile may require a body coat prior to system application. Protrusions shall be ground smooth while voids shall be filled with a Sherwin-Williams system filler. For recommendations, consult the Sherwin-Williams Technical Service Department.

#### **TEMPERATURE**

Throughout the application process, substrate temperature should be 50-95°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 materials should not be applied in direct sunlight, if possible.

## **APPLICATION INFORMATION – SURFACE PREP PROFILE CSP 1-3**

VOC MIXED	APPLICATION STEP	MATERIAL	MIX RATIO	THEORETICAL COVERAGE	PACKAGING
<50 g/L	Primer	MPE	2:1	321-535 sq ft/gal	3, 15, 165 or 750 gals
<50 g/L	Build Coat	MPE	2:1	123-228 sq ft/gal	3, 15, 165 or 750 gals
<100 g/L	Topcoat	HTS 100	pre-measured kit	500 sq ft/gal	1.09 or 5.5 gals
ALTERNATE SYSTEM #1					

<50 g/L	Primer	4850	2:1	200-300 sq ft/gal	3 or 15 gals
<50 g/L	Build Coat	4850	2:1	150-250 sq ft/gal	3 or 15 gals

## **GENERAL PRODUCT INFORMATION**

#### **OPTIONS:**

**Colors in Resuftor MPE:** Use colorants at a rate of one unit per 3-gallon mix. Standard Colorants - White, Yellow and Light Gray will not impart total hide. Use these colorants at a rate of two units per 3-gallon mix. Similar colorants also may not hide as well. Refer to Color Selection Guide.

**Colors in Resutile HTS 100:** Use Colorants at a rate of one unit per 1-gallon mix. Standard Colorants - White, Yellow and Sandy Beige will not impart total hide. Similar colorants also may not hide as well. Refer to Color Selection Guide.

#### LIMITATIONS:

**Contamination (fisheyes):** Product may fisheye if oil, silicones, mold release agents or other contaminants are present.

**Chemical Resistance/Staining:** Reduced chemical resistance and staining is possible in pigmented versions of the system.

#### **PRIMER - RESUFLOR-MPE**

A thin coat of primer will wet out concrete, help seal off concrete pores and minimize outgassing bubbles. Apply a tight coat of primer with a clean, flexible squeegee. Backrolling is not recommended. There should be no mil build over the high spots of the concrete. **COVERAGE RATE:** Much of this will soak into porous concrete. One gallon of Resultor MPE will cover:

535 sq ft at 3 mils wet/dry film

400 sq ft at 4 mils wet/dry film

321 sq ft at 5 mils wet/dry film

**PREMIX PART A** using a Jiffy<sup>®</sup> mixer blade and slow speed drill. (This is required for both 3-gallon and full-filled 5-gallon units.) For full-filled 5-gallon pails, pour out 2 gallons into a measuring container. Then, pour the measured Part A into a mixing pail.

#### ADD RESUFLOR MPE PART B TO PART A (3 GALLONS TOTAL

**MIX).** For full-filled 5-gallon pails, pour out 1 gallon 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 that 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. For smaller quantities, use 2 parts PART A to 1 part PART B by volume.* 

#### **APPROXIMATE WORK TIME**

65°F	70°F	75°F	80°F	90°F
40 min	30 min	25 min	20 min	15 min

**MIX FOR 2 MINUTES** using a Jiffy<sup>®</sup> 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 sufficient down pressure to apply the thinnest coat. **NOTE:** The use of spiked shoes will allow freedom of movement on the wet floor. **CAUTION:** *The surface will be slippery.* 

**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. **NOTE:** *Resuflor MPE 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 build coat of Resuflor MPE.

The primer must be coated within 24 hours at floor temperatures 65°F-90°F.

## **BUILD COAT - RESUFLOR-MPE**

**COVERAGE RATE:** One gallon of Resuflor MPE will cover:

228 sq ft at 7 mils wet/dry film

- 200 sq ft at 8 mils wet/dry film
- 178 sq ft at 9 mils wet/dry film
- 160 sq ft at 10 mils wet/dry film
- 145 sq ft at 11 mils wet/dry film
- 133 sq ft at 12 mils wet/dry film

123 sq ft at 13 mils wet/dry film

**REPEAT STEPS** used for mixing and spreading of the primer coat.

**COLORS:** Premix Colorants to ensure uniform color. Colorant is added at the rate of 1 unit per 3-gallons mix.

**NOTE:** When using colorant in the bulk units, add the colorant to the Part A that has been measured into the "mixing pail."

**BACKROLL THE MATERIAL** with a 3/8" nap roller for a smooth uniformed appearance. Backrolling is required to remove the puddles and squeegee lap marks in order to obtain uniform texture and a consistent mil thickness. **NOTE:** *Get off the Resuflor MPE as soon as possible.* 

If Resuflor MPE is topcoated with Resutile HTS 100 at floor temperatures of 65-90°F, it does not need to be sanded if applied within 24 hours.

If epoxy is not coated within 24 hours, it must be sanded with 80 grit paper. The use of more aggressive paper will introduce deep grooves that will not be covered by a single, thin coat of urethane; swirl marks will be particularly evident in a topcoat that is glossy. We recommend thorough sanding with a swingtype 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. Scrub with detergent and rinse with clean water before coating and tack rag to remove fine dust.

## **TOPCOAT - RESUTILE HTS 100**

**PREMIX PART A FOR 3 MINUTES USING A JIFFY\* MIXER BLADE** with slow speed drill. **POTLIFE:** *Mix only enough that can be used in a two-hour period.* **NOTE:** *Once opened, this material cannot be resealed for later use.* 

**COLORS:** Premix Colorant before adding to Resutile HTS 100 to ensure uniform color. Add colorant to Resutile HTS 100 Part A and mix using a Jiffy\* mixer blade and slow speed drill. Use colorants at a rate of one unit per 1-gallon unit of Resutile HTS 100.

POUR PART C INTO PART A while mixing.

**CONTINUE TO MIX AND ADD PART B. MIX FOR 3 MINUTES** using a Jiffy<sup>®</sup> mixer blade and slow speed drill. Pour into application tray.

**APPLY RESUTILE HTS 100** at the rate of 500 sq ft /gallon with a 3/8" nap roller. For proper appearance and development of physical properties, it is crucial that material is not applied above or below this rate. 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 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. Excess material 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. These final strokes will reduce roller marks. If the appearance is not satisfactory, reroll the area.

**REMIX THE MATERIAL** in the tray occasionally (with the roller) to prevent settling of the Part C (filler).

**NOTE:** When multiple applicators are used to apply material, inconsistencies between areas may result. To ensure a more uniform finish, an individual outfitted with spiked shoes may finish by pushing or pulling a roller across all applicator areas.

**ALLOW COATING TO DRY 24 HOURS** at 75°F, 50% relative humidity before opening to light traffic. Allow more time at low temperatures, low humidity or for heavier traffic. Full coating properties take 14 days to develop.

## **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 SDS before use. All applicable federal, state, local and particular plant safety guidelines must be followed during the handling and installation and cure of these materials. Safe and proper disposal of excess materials shall be done in accordance with applicable federal, state, and local codes.

#### **MATERIAL STORAGE**

Store materials in a temperature controlled environment 50- 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.

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