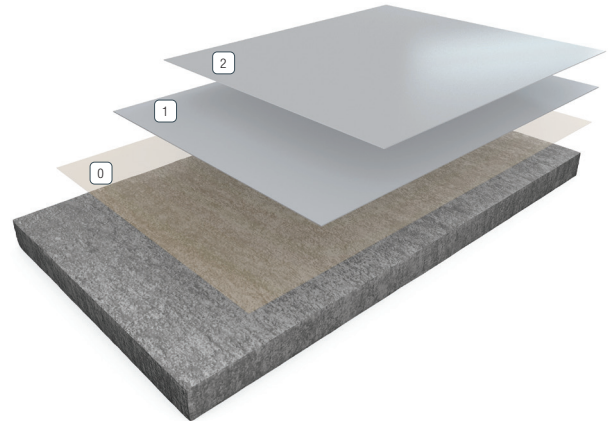


## RESUFLOOR™ SDU EV

Sherwin-Williams Resuflor SDU EV is a high-performance, static control flooring system. Comprised of a moisture vapor barrier coat, a high-solids epoxy build coat and an electrostatic dissipative urethane topcoat, the system provides reliable electrostatic discharge (ESD) protection combined with excellent chemical resistance.



0 Moisture Vapor Barrier Coat

1 Build Coat

2 Static Dissipative, NMP Resistant Topcoat

### BENEFITS

- Meets ANSI/ESD S20.20-2007 for resistance at  $1 \times 10^5$  to  $< 1 \times 10^9$  ohms and  $< 100$  volts body voltage generation
- Provides good chemical and stain resistance
- Can be applied to green concrete
- Seamless and sanitary; easy to clean and maintain
- Attractive satin finish is available in choice of colors
- LEED® v4 — Green Building credits available

### USES

- EV battery manufacturing facilities
- Clean room and dry room environments
- Industrial production and assembly

### TYPICAL PHYSICAL PROPERTIES

<b>Body Voltage Generation</b> ANSI/ESD STM 97.2 (ANSI/ESD S20.20 - Method 2)	12 volts with ESD shoes 32 volts with heel straps
<b>Body Voltage Decay</b> (with ESD shoes or heel straps) AATCC 134-1979 (modified)	1,000 volts to $< 10$ volts in $< 1.0$ sec
<b>Resistance to Ground in Combination with a Person</b> ANSI/ESD STM 97.1 (ANSI/ESD S20.20 - Method 1)	$< 3.5 \times 10^7$ ohms (ESD shoes or heel straps)
<b>Surface Resistance Point to Point/Point to Ground</b> ESD Assoc. ANSI/ESD 71-2005	$1 \times 10^5$ ohms to $< 1 \times 10^9$ ohms
<b>Abrasion Resistance</b> ASTM D4060 Taber Abraser, CS-17 Taber Abrasion Wheel, 1,000 g load, 1,000 revolutions.	38 mg/loss
<b>Adhesion to Concrete</b> ASTM D7234	350 psi Result based on lab testing of Resuprime™ MVB
<b>Compressive Strength (epoxy)</b> ASTM D695	13,500 psi
<b>Flammability (topcoat resin)</b> ASTM D635	182 mm/min
<b>Shore D Hardness (epoxy)</b> ASTM D2240	80-85 @ 0 sec 75-80 @ 15 sec
<b>Tensile Strength</b> ASTM D2370	6,250 psi
<b>Percent Elongation</b> ASTM D2370	6%
<b>Dynamic Coefficient of Friction (DCOF)</b> ANSI A326.3-2017	0.72

**INSTALLATION**

The following information is to be used as a guideline for the installation of the Resuflor SDU EV. 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°F-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 — SURFACE PREP PROFILE CSP 1-3**

VOC MIXED	APPLICATION STEP	MATERIAL	MIXED RATIO	THEORETICAL COVERAGE	PACKAGING
<100 g/L	Moisture Vapor Barrier Coat	MVB	1:1	72 sq ft	2 or 10 gal
<50 g/L	Build Coat	MPE	2:1	105 sq ft/gal	3, 15, 105 or 750 gal
<50 g/L	Static Dissipative, NMP Resistant Topcoat	SDS Satin	Pre-measured kit	600 sq ft/gal	1.09 gal

## GENERAL PRODUCT INFORMATION

### Resuprime MVB

Do not apply to new concrete slabs until at least seven days old.

Colorants CANNOT be used in Resuprime MVB.

Resuprime MVB is not a wear surface or topping, it must be topcoated.

Do not apply over a slab while experiencing hydraulic pressure.

Warranty will not apply to Resuprime MVB installed over concrete with ASR (Alkali Silica reaction).

MVER may fluctuate within slab areas and can have significant seasonal variations.

Do not apply over existing coatings, sealer or floor coverings.

Do not apply to concrete slabs with less than 3,500 psi compressive strength. (Consult Sherwin-Williams Technical Services.)

Protect the area to be treated from strong sunlight, wind or drafts during application.

Acid etching and diamond grinding should not be used as a method of preparation.

Cannot be sprayed.

### OPTIONS

Use the same color in Resuflor MPE and Resutile™ SDS Satin. White is not recommended for this system.

**Colors in Resuflor 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 SDS Satin:** Use colorants at a rate of one-half unit per 1-gallon mix.

### LIMITATIONS

**Colors:** The use of color is recommended in Resutile SDS Satin. DO NOT USE WHITE.

**Hide:** The topcoat must be applied over a pigmented primer or existing coating of similar color to obtain color hide in Resutile SDS Satin. The resulting system color will be closer to the primer.

### 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.

## MOISTURE VAPOR BARRIER COAT — RESUPRIME MVB

### SURFACE PREPARATION

**CHECK THE CONCRETE:** Concrete must be structurally sound. Concrete can be less than 28 days old.

**CHECK FOR MOISTURE:** For 22-mil application — readings can be up to 100 percent relative internal concrete humidity. Test methods can be purchased at [www.astm.org](http://www.astm.org) or follow instructions from the suppliers of this test.

**NOTE:** Although moisture 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. Functioning vapor barrier is required for use.

**CHECK THE TEMPERATURE AND HUMIDITY:** The ambient and surface temperature must be between 60°F (15.6°C) and 90°F (32.2°C) at the time of application, and temperatures should not rise above this range during application or while the material is curing. Ambient relative humidity percentage should not exceed 80 percent at the time of application.

**CONCRETE:** Repair and leveling layers containing latex or other components generally prevent absorption and proper bond and should be removed. Surface must be shot blasted to achieve a surface profile of ICRI CSP 3-5 (Int. Concrete Repair Inst.). Grinding or acid etching is not permitted, nor chemical remediation of any adhesive residues.

**ENSURE POROSITY:** Surface must be clean, completely free of dust, dirt, paint, sealer or any contaminant which might interfere with penetration or bond. Do not apply to floors which have sealers or bond breakers applied unless completely removed. Quick tests to help determine clean, open and absorptive concrete uses water drops. This easy test is particularly important if cores were not pulled and tested. If dime-size water drops placed at several locations on prepared floor, do not readily absorb into concrete within 30 seconds or beads up, surface is not sufficiently absorptive. In all cases, thorough vacuuming (with dust containment filter) is needed before application. Cleaning with pressure washer may be advisable in some cases. Leveling should be done on top of Resuprime MVB with suitable repair materials.

**JOINTS:** Expansion (cold or construction) joints should be left intact. Resuprime MVB is not warranted against structural movement at expansion joints. To help reduce moisture emissions through expansion joints, coat the walls and bottom of the cleaned joint with Resuprime MVB. Once allowed to dry, an expansion joint cover or an elastomeric sealant may be used. For concrete slabs over six months old, sawcut (control) joints and cracks should be filled by pouring Resuprime MVB full depth or to three-fourths of joint depth. If filling to three-fourths depth pour silica quartz into Resuprime MVB to create a mortar. Sweep away excess sand and proceed with Resuprime MVB installation.

**APPLICATION: COVERAGE RATES** — Apply the balance of Resuprime MVB needed to achieve the desired total thickness. It is important that the coverage rates are consistent. Very rough or porous concrete may require a heavier application. Adjust the rate as needed.

One gallon (3.78 litres) of Resuprime MVB will cover: 72 ft<sup>2</sup> (6.7 m<sup>2</sup>) at 22 mils (0.56 mm) wet/dry film

**PART A:** For larger unit sizes, pour out 2 gallons (7.56 litres) Part A into a measuring container. Then, pour this measured Part A into a 5-gallon mixing pail.

**ADD RESUPRIME MVB PART B TO PART A (1:1 VOLUME RATIO).**

For larger unit sizes, pour out 2 gallons (7.56 litres) 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. **MIX FOR FOUR MINUTES** using a Jiffy mixer blade and slow-speed drill to produce a streak free, homogenous product. Care must be taken to mix all the product and avoid any action that might entrap air such as highspeed drill mixing. DO NOT THIN the product.

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

65°F (18.3)	70°F (21.1)	75°F (23.9)	80°F (26.7)	90°F (32.2)
45 min	32 min	20 min	16 min	12 min

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

**PUSH THE SQUEEGEE** at an even speed and down pressure. The squeegee should be pushed to apply the targeted amount. **NOTE:** Use of a notched squeegee will make it easier to apply a thicker coat. Immediately after the Resuprime MVB is applied and there is room to roll, a second person will **BACKROLL THE MATERIAL** with a short nap roller to a smooth and uniform appearance. **NOTE:** Finish backrolling as soon as possible.

**BEFORE PROCEEDING WITH SUBSEQUENT COATS:** First, thoroughly check Resuprime MVB for any fisheyes or pinholes which would be a weak point in the membrane. Grind these areas and clean off residue. Make sure the surface is dry. Then, reapply Resuprime MVB to these areas.

**APPROXIMATE CURE TIME (hours): °F (°C)**

65°F (18.3)	70°F (21.1)	75°F (23.9)	80°F (26.7)	90°F (32.2)
11 hrs	9 hrs	7 hrs	6 hrs	4 hrs

Sherwin-Williams epoxies bond to Resuprime MVB if coated within 24 hours. Resuprime MVB must be cured (hard) enough so spikes worn to apply epoxy or other recoat activities do not damage Resuprime MVB.

**BUILD COAT - RESUFLOR MPE**

**COVERAGE RATE:** One gallon of Resuflor MPE will cover: 106 square feet at 15 mils wet/dry film

**PREMIX PART A** using a Jiffy 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.

**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."

**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 two parts PART A to one part PART B by volume.

**MIX FOR TWO MINUTES** 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 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).

**BACKROLL THE MATERIAL** with a 3/8-inch 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°F-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.

## STATIC DISSIPATIVE, NMP RESISTANT TOPCOAT – RESUTILE SDS SATIN

**PREMIX PART A USING A JIFFY® MIXER BLADE** with slow-speed drill. **POTLIFE:** Mix only enough material which can be used within 30 minutes. **NOTE:** Once opened, this material cannot be resealed for later use.

**CONTINUE TO MIX AND ADD PART B. MIX FOR ONE MINUTE** using a Jiffy mixer blade and slow speed drill.

**POUR MIXED PARTS A/B INTO PART C** while mixing. **NOTE:** The Part C is not blended — **DO NOT SPLIT MIX OR PRODUCT MAY NOT MEET PERFORMANCE SPECIFICATIONS. MIX FOR THREE MINUTES** using a Jiffy mixer blade and slow-speed drill. Move the blade up and down the sides of the pail and across the bottom to ensure contents are thoroughly mixed so no dry filler remains.

**COLORS:** Use colorants at a rate of one-half unit per 1 gallon of Resutile SDS Satin. Premix tennant colorant before adding to the combined Parts A/B/C to ensure uniform color. Add colorant to combined Parts A/B/C and mix using a Jiffy mixer blade and slow-speed drill. Mix until well blended. Pour into application tray.

**APPLY RESUTILE SDS SATIN** at the rate of 600 square feet/gallon with a 3/8-inch nap roller. For proper appearance and development of physical properties, it is crucial that material is not applied above or below this rate. Material applied at a lower application rate will tend to foam at higher humidities and temperatures. Dip the roller in the coating and lightly roll out excess in the application tray. Apply material in an area no wider than 10 feet. One dip should cover about 45 square feet.

**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, and will show more roller marks. Insufficient material will cause the floor to look non-uniform. If you cannot see the grit texture, the material is too thick. **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:** This product cannot be finish-rolled by a separate individual. Late finish rolling may introduce foam in the coating especially at higher humidities and temperatures.

**ALLOW COATING TO DRY 24 HOURS** at 75°F, 50 percent relative humidity before opening to light traffic. Allow more time at low temperatures, low humidity or for heavier traffic. Full coating properties take seven to 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. 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 at 50°F-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](http://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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