

RESUFLOOR™ SCREED TG46 EV

7-DAY NMP RESISTANT FLOORING SYSTEM

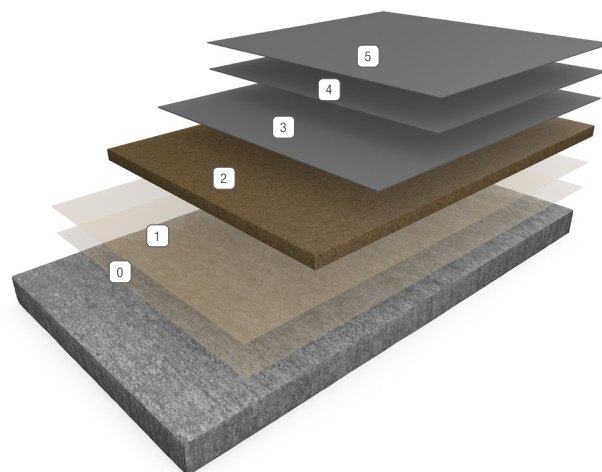
Sherwin-Williams Resufloor Screed TG46 EV is a nominal 1/8-inch to 1/4-inch thick, heavy-duty resurfacing system that can help extend the life of concrete floors. Comprised of a moisture vapor barrier coat, primer, epoxy/aggregate mortar, grout coat, build coat and chemical-resistant high-wear topcoat, this durable topping is ideal for refurbishing existing surfaces or protecting new concrete substrates.

BENEFITS

- Chemically resistant to NMP exposure up to seven days when tested to ASTM D1308
- Economically resurfaces worn, uneven concrete
- Protects substrates from heavy impact and wear
- Easy to sanitize and maintain
- Slip-resistant, yet allows thorough cleanup of carbon black
- Standard and unlimited custom colors available
- Can be applied to green concrete
- LEED® v4 – Green Building credits available

USES

- EV battery manufacturing facilities
- Drum storage rooms
- Pack processing areas
- Loading docks



- | | | | |
|---|------------------------------------|---|--|
| ① | Moisture Vapor Barrier Coat | ③ | Grout Coat |
| ② | Primer | ④ | Build Coat |
| ③ | Mortar | ⑤ | Slip- and NMP-Resistant Topcoat |

TYPICAL PHYSICAL PROPERTIES

Abrasion Resistance ASTM D4060 Taber Abraser CS-17 Wheel, 1,000 cycles	11.7 mg loss Result based on independent lab testing of Resutile™ HTS
Hardness, Shore D ASTM D 2240	80-85 @ 0 sec 75-80 @ 15 sec
Elongation (resin) ASTM D2370	6%
Adhesion ASTM D7234	350 psi Result based on lab testing of Resuprime™ MVB
Flammability ASTM D635	182 mm/min
Dynamic Coefficient of Friction (DCOF) ANSI A326.3 -2017	0.72
Chemical Resistance ASTM D1308 Method B	NE; 7 days

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 Resuflo Screed TG46 EV Systems. 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 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 4-6

VOC MIXED	APPLICATION STEP	MATERIAL	MIX RATIO	THEORETICAL COVERAGE	PACKAGING
100 g/L	Moisture Vapor Barrier Coat	MVB	1:1	72 sq ft/gal	2 or 10 gal
<50 g/L	Primer	MPE	2:1	180-220 sq ft/gal	3, 15, 105 or 750 gal
<50 g/L	Mortar	MPE PT 250 Aggregate	Typical mortar mix: 1 gal MPE Pt A + 0.5 gal MPE Pt B + 3-37.2 lb bags PT 250 aggregate	56 sq ft/typical mortar mix	3, 15, 105 or 750 gal 37.2 lbs
<50 g/L	Grout Coat	PT Topcoat	Pre-measured kit	200 sq ft/gal	3 gal
<50 g/L	Build Coat	MPE	2:1	200 sq ft/gal	3, 15, 105 or 750 gal
<50 g/L	Slip- and NMP-Resistant Topcoat	HTS 100	Pre-measured kit	500 sq ft/gal	1.09 or 5.5 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:

ResufloTM PT 250 Mortar is available in two kit sizes in Neutral:

900 square feet at 1/4-inch kit includes 30 total gallons of Resuflo MPE and 48 37.2-lb bags of aggregate.

- Use 6 gallons of MPE as primer
- Use 24 gallons of MPE and 48 37.2-lb bags of aggregate for overlay

11,700 square feet at 1/4-inch kit includes 374 gallons of Resuflo MPE and 624 37.2-lb bags of PT 250 aggregate.

- 63 gallons of MPE is used as the primer
- 312 gallons of MPE and 624 37.2-lb bags of aggregate are used for the overlay

Other aggregate packaging may be available. Contact your Sherwin-Williams representative for details. For a colored overlay, add colorant at the ratio recommended below. Colors in Resuflo PT 250: Use colorants at a rate of 1/4 unit (3 ounces) per three-bag mix. Standard colorants in White, Light Gray, Yellow and Rotunda Red will not impart total hide. Use these colorants at a rate of 1/2 unit (8 ounces) per three-bag mix. Colors in Resuflo MPE and Resuflo PT Topcoat: Use colorants at a rate of one unit per 3 gallon mix. Standard colorants in White, Yellow, Light Gray and Rotunda Red 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 or consult Sherwin-Williams Technical Support.

Cove: A seamless, smooth transition can be created between the flooring and wall. Call technical support for assistance or see bulletin on Cove Installation.

Colors in Resuflo MPE: Use colorants at a rate of one unit per 3-gallon mix. Standard colorants in 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 in 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 are 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: 22-mil application — readings can be up to 100 percent relative internal concrete humidity. Test methods can be purchased at 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 that 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 3/4 of joint depth. If filling to 3/4 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 sq ft (6.7 m²) 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 high-speed drill mixing. **DO NOT THIN** the product.

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

65 (18.3)	70 (21.1)	75 (23.9)	80 (26.7)	90 (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 (18.3)	70 (21.1)	75 (23.9)	80 (26.7)	90 (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.

PRIMER — RESUFLO MPE

Resuflo PT 250 is applied over Resuflo MPE primer that is still wet or sticky — within four hours. It is critical that all concrete is covered to ensure proper adhesion of the overlay.

NOTE: The kits come with enough Resuflo MPE to prime at 180-220 square feet per gallon for 1/4-inch PT 250 applications. If Resuflo PT 250 is being put down at 3/16-inch and/or the floor is extremely porous or rough, additional primer will be needed.

Apply a tight coat of primer with a clean, flexible squeegee. There should be no mil build over the high spots of the concrete.

COVERAGE RATE: One gallon of Resuflo MPE will cover

220 square feet at 7 mils

200 square feet at 8 mils

180 square feet at 9 mils

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 RESUFLO 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 two parts Part A to one part Part B by volume.

APPROXIMATE WORK TIME

65°F	70°F	73°F	80°F	90°F
40 min	30 min	25 min	20 min	15 min

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 SQUEEGEE at an even speed and down pressure to apply the desired thickness. A notched squeegee can be used to increase the thickness applied. **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:** Resufloor 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, uniform appearance. Backrolling is required to remove the puddles and squeegee lap marks in order to obtain uniform texture and a consistent mil thickness.

MORTAR — RESUFLO PT 250

Resufloor[™] PT 250 is applied over Resufloor MPE primer that is still wet or sticky — within four hours. It is critical that all concrete is covered to ensure proper adhesion of the overlay.

COVERAGE RATE: A three-bag mix of Resufloor PT 250 will nominally cover (finished floor):

56 square feet at 1/4-inch

PREMIX RESUFLO MPE PART A using a Jiffy[®] mixer blade and slow-speed drill. For full-filled 5-gallon units, pour out 1 gallon into a measuring container. Then, pour the measured Part A into a mixing pail.

COLORS: Premix colorant before adding to Resufloor MPE to ensure uniform color. Pour out 1/4 pint (1/2 cup, 4 ounces) into a measuring container. Add colorant to Resufloor MPE Part A and mix using a Jiffy mixer blade and slow speed drill.

POUR THREE BAGS OF PART C into the mortar mixer. Begin mixing.

ADD RESUFLO[™] MPE PART B (0.5 gallon) TO RESUFLO MPE PART A (1 gallon).

POTLIFE: Mix only enough material that can be screeded and troweled in a 15-minute period.

MIX FOR ONE MINUTE or until thoroughly mixed using the Jiffy mixer blade and slow speed drill.

POUR THE MIXED PARTS A AND B into the mortar mixer. Mix until uniform (approximately one minute). The resin needs to only wet out the sand.

POUR THE MIXED MATERIAL into the screed box.

To achieve a 1/4-inch finished floor, set the screed box at 5/16-inch.

To achieve a 3/16-inch finished floor, set the screed box at 1/4-inch.

NOTE: If the material is too thick, it will be more difficult to level.

SCREED material over desired area. **NOTE:** The use of spiked shoes will allow freedom of movement on the unfinished overlay.

CAUTION: The surface will be slippery.

USE HAND TROWELS for edges and touchup.

POWER TROWEL MATERIAL to compact and achieve finished texture with an epoxy power trowel (<50 rpm) as soon as possible.

ALLOW RESURFACER TO CURE six to eight hours at 75°F before sealing. Allow more time at low temperatures.

USE OF A TERRAZZO GRINDER OR SURFACE GRINDER to remove high spots and ensure a continuous surface is highly recommended. Vacuum up the loose material.

GROUT COAT — RESUFLO PT TOPCOAT

Resufloor PT 250 must be sealed with one coat of Resufloor PT Topcoat.

COVERAGE RATE: One gallon of Resufloor PT Topcoat will cover 200 square feet at 8 mils wet/dry film.

PREMIX RESUFLO PT TOPCOAT PART A using a Jiffy mixer blade and slow speed drill.

COLORS: Premix colorant before adding to Resufloor PT Topcoat to ensure uniform color. Add colorant to Resufloor PT Topcoat Part A and mix using a Jiffy mixer blade and slow-speed drill.

ADD RESUFLO MPE/RESUFLO PT TOPCOAT PART B TO RESUFLO PT TOPCOAT PART A and mix well using a Jiffy mixer blade and slow speed drill.

MIX FOR 2-3 MINUTES using a Jiffy mixer blade. **POTLIFE:** Mix only enough material that can be applied within 20 minutes.

POUR THE MIXTURE IN A BEAD over the cured Resufloor PT 250 mortar or epoxy. **WITH A FLAT SQUEEGEE, SPREAD THE RESUFLO PT TOPCOAT.** Sealing without backrolling will minimize texture. **BACKROLL WITH A 3/8-INCH NAP ROLLER** for a uniform finish. **NOTE:** The use of spiked shoes will allow freedom of movement on the unfinished overlay. **CAUTION:** The surface will be slippery.

NOTE: If backrolling, to ensure a more uniform texture, a separate individual may finish roll by pushing or pulling a roller across the floor in one direction. Unpigmented Resufloor PT Topcoat will dry “milky” if put down at more than 6 mils.

If Resufloor PT Topcoat is being topcoated at floor temperatures of 65°F-90°F, it does not need to be sanded if applied within 24 hours.

BUILD COAT — RESUFLO MPE

Follow mixing and application instructions for PRIMER — RESUFLO MPE above.

Apply at 200 square feet per gallon to achieve 8 mils DFT.

SLIP- AND NMP-RESISTANT TOPCOAT — RESUTILE HTS 100

Detergent scrub and rinse with clean water to remove surface dirt, grease, oil and contaminants. Floor must be sanded thoroughly with 80-grit paper/60-grit screen prior to recoating.

If sanding a high-wear urethane, use 60-grit paper as the filler in high wear urethanes will wear down the paper very quickly. Change the paper every 200 square feet (18.6 m²) so abrasive stays sharp. 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. Scrub with detergent and rinse with clean water before coating.

PREMIX PART A FOR THREE MINUTES USING A JIFFY® MIXER BLADE with slow-speed drill. **POTLIFE:** Mix only enough material 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 mixer blade and slow-speed drill. Pour into application tray.

APPLY RESUTILE HTS 100 at the rate of 500 square feet per 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. 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. 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.

REMIK 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 and 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 all SDSs 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°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 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

sherwin-williams.com/resin-flooring
swflooring@sherwin.com