

PART A GP4640A01
PART B GP4640B01
PART C GP4640C01

CLEAR
HARDENER
AGGREGATE

Revised: June 13, 2023

PRODUCT INFORMATION

PRODUCT DESCRIPTION

RESUTILE HTS 100 is a clear, high solids, three-component, aliphatic, moisture-cure urethane applied over an epoxy primer or used to recoat an existing epoxy or urethane floor.

Advantages:

- LEED® v4 – Indoor Air Quality credits available - meets requirements per CDPH-CA Section 01350 Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental chambers Version 1.2.
- Lasts twice as long as standard urethanes; up to four times as long as standard epoxies
- Light stable, satin finish maintains fresh look in traffic aisles
- Resists Skydrol®, jet fuels and other industrial chemicals
- Low VOC (6 g/L). (Complies with SCAQMD VOC regulations.)

TYPICAL USES

- Hangar Floor
- Automotive manufacturing
- Mechanical Room
- Assembly / Production
- Packaging
- Clean Room / Lab

GENERAL INFORMATION

Use colorants at a rate of one unit per 1-gallon (3.78 litres) of Resutile HTS 100. Standard colorants: White, Yellow Sandy Beige will not impart total hide. Similar colorants also may not hide as well.

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.

ORDERING INFORMATION

Packaging: Part A: 1.48 gallons (5.6L) in a 5 gallon (18.9L) pail, and 3.7 gallons (14L) in a 5 gallon (18.9L) pail.
Part B: 0.40 gallons (1.5L) in a half-gallon (1.9L) can, and 1 gallon (3.8L) in a gallon (3.8L) can.
Part C: ~4 lbs. in a half-gallon (1.9L) can, and ~20 lbs. in a 2 gallon (7.6L) pail.

PRODUCT CHARACTERISTICS

Color: Clear
Mix Ratio: Large kit: 1:1:1 by unit
Small kit: 1:1:2 by unit
Volume Solids: 91.60%, mixed (ASTM D2369)
Weight Solids: 91.34%, mixed (ASTM D2369)
VOC (ASTM D3960): 7 g/L ; 0.05 lb/gal

Recommended Spreading Rate per coat:

| | Minimum | Maximum |
|--|-------------------|-------------------|
| Dry mils (microns) | 3.0 (75) | 3.0 (75) |
| Coverage sq ft/gal (m²/L): | 500 (12.3) | 500 (12.3) |

Drying Schedule:

| | @ 60°F/16°C 20% RH | @ 60°F/16°C 80% RH | @ 75°F/24°C 13% RH | @ 90°F/32°C 20% RH | @ 90°F/32°C 80% RH |
|-----------------------|--|--------------------------|--------------------------|--------------------------|--------------------------|
| Tack Free: | 6.5 hours | 12-16 hours | 3.5 hours | 1.5 hours | 12-16 hours |
| Foot Traffic: | 24 hours | 24 hours | 24 hours | 24 hours | 24 hours |
| Recoat Window: | Maximum: Up to 24 hours for all conditions | | | | |

Shelf Life: 12 months, unopened
Store indoors at 65°F (18°C) to 90°F (32°C)

PERFORMANCE CHARACTERISTICS

| Test Name | Test Method | Results* |
|---|---|----------------------|
| Abrasion Resistance | ASTM D4060, CS-17 wheel, 1000gm load, 1000 cycles | 11.7 mg loss |
| Coefficient of Friction | ASTM D2047 | 0.61 |
| Elongation | ASTM D2370 | 6% |
| Flammability | ASTM D635 | 182 mm/min |
| Koenig Hardness, 3 Mil Film (resin only) | ASTM D4366 | 171.3 |
| Tensile Strength (resin only) | ASTM D2370 | 6,250 psi |
| Water Absorption, 24-hour immersion | ASTM C413 | 0.2% weight increase |
| Wet Static Coefficient of Friction, BOT 3000 | ANSI/NFSI B101.1 | 0.94 |

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

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SURFACE PREPARATION

CHECK THE TEMPERATURE AND HUMIDITY: Floor temperature and materials should be between 65°F (18°C) and 90°F (32°C). Humidity must be less than 80%. DO NOT coat unless floor temperature is more than five degrees over the current, local dew point.

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, see F2170, or follow manufacturer's instructions. If moisture issues are present, the use of a moisture mitigation system may be a consideration. Consult your Sherwin-Williams representative for further information / instructions.

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. Additional testing may be necessary to determine the vapor barrier and any contamination.

APPLICATION EQUIPMENT

- Protective clothing
- Jiffy® mixer blade
- Application tray
- Disc machine
- Slow speed drill (500 rpm or less)
- Roller assembly (18")
- Medium (3/8") nap roller
- 60 grit sandpaper
- 80 grit sandpaper

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.)

APPLICATION INSTRUCTIONS

Recoat: Resutile HTS 100 may be used to coat over an existing epoxy or urethane in sound condition. 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 sq. ft. (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.

Resutile HTS 100 must be applied over a Sherwin-Williams' 100% solids epoxy primer.

Premix Part A for 3 minutes using a Jiffy mixer blade with slow speed drill. Pot Life: Mix only enough material which can be used in a two-hour period. Note: Once opened, this material cannot be resealed for later use.

Colors: Premix Sherwin-Williams 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 (3.78 litres) 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 sq. ft./gallon (46.45 m²/3.78 litres) 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 8-10 foot (2.4-3.0 meters) 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 spike shoes may finish by pushing or pulling a roller across all applicator areas.

Allow coating to dry 24 hours at 75°F (24°C), 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.

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CHEMICAL RESISTANCE

| Reagent | 1 Day | 7 Days |
|----------------------------------|-------|--------|
| Hydrochloric Acid 10% | E | E |
| Hydrochloric Acid 30% (Muriatic) | E | E |
| Nitric Acid 10% | E | E |
| Phosphoric Acid 50% | E | G |
| Sulfuric Acid 37% (Battery Acid) | E | E |
| Acetic Acid 10% | E | E |
| Citric Acid 10% | E | E |
| Oleic Acid | E | E |
| Ammonia Hydroxide 10% | E | E |
| Sodium Hydroxide 50% | E | E |
| Ethylene Glycol (Antifreeze) | E | E |
| Isopropyl Alcohol | E | E |
| Methanol | E | E |
| D-Limonene | E | E |
| JP-4 Jet Fuel | E | E |
| Gasoline | E | E |
| Mineral Spirits | E | E |
| Xylene | E | E |
| Methylene Chloride | P | P |
| MEK | E | E |
| PMA | E | E |
| Ammonium Nitrate 20% | E | E |
| Brake Fluid | E | E |
| Bleach | E | E |
| Motor Oil (SAE 30) | E | E |
| Skydrol® 500B | E | E |
| Skydrol® LD4 | E | E |
| Sodium Chloride 20% | E | E |
| 1% Tide® Laundry Soap | E | E |
| 10% Trisodium Phosphate | E | E |
| Coffee | E | E |
| Coke® | E | E |
| Ketchup | E | E |
| Mustard | G* | G* |
| Red Wine | E | G* |
| 3M™ DuraPrep™ | G* | F |
| Purdue Betadine Solution | G* | G* |

ASTM D1308 Test Method 3.1.1 spot test, covered. Results are based on 1-day and 7-day. Coating cured 2 weeks prior to testing.

E - Excellent (no adverse effect) - Recommended
G - Good (limited adverse effect) - Use for short-term exposure only
F - Fair (moderate adverse effect) - Not recommended
P - Poor (unsatisfactory) - Little or no resistance to chemical

*only adverse effect was staining

NOTE: Reduced chemical resistance and staining is possible in pigmented versions of the system

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 tires can permanently stain the floor coating from plasticizer migration. Plexiglass® between the tire and the floor coating can prevent discoloration. 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 two pints of colorant per small kit (~2.12 gallon mix). Use five pints of colorant per large kit (~5.30 gallon mix).

Standard colorants: White, Bright Yellow, Rotunda Red and Sandy Beige will not impart total hide. Similar colorants also may not hide as well.

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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