

Technical Data Sheet



4685W

POLY-COTE™ High Performance Wall Coating

**PRODUCTION DESCRIPTION**

General Polymers 4685W POLY-COTE HIGH PERFORMANCE WALL COATING is a high solids, aliphatic polyurethane, light stable and non-yellowing resin, with low odor and is VOC compliant as a topcoat to the General Polymers wall systems it provides a slight stipple, high gloss finish ideal for clean environments and frequent wash downs.

**ADVANTAGES**

- UV Stable (interior or exterior)
- High gloss
- Resistant to Betadine staining
- Washable with steam or hot water
- Good chemical resistance
- Available with an antimicrobial agent
- May be used in exterior environments

**TYPICAL USES**

4685W POLY-COTE HIGH PERFORMANCE WALL COATING can be used in facilities requiring sanitary surfaces including pharmaceutical, food and beverage and spirits, healthcare, kitchen, bath and washroom areas, clean room environments, correctional and institutional facilities. 4685W POLY-COTE HIGH PERFORMANCE WALL COATING is the finish coat used on SANIFLEX®, SANIGLAZE®, SANIGLASS® and SANIFIBER wall systems.

**LIMITATIONS**

- Slab on grade requires vapor/moisture barrier.
- Substrate must be structurally sound, dry and free of bond inhibiting contaminants.
- During installation and initial cure cycle substrate and ambient air temperature must be at a minimum of 60F and a maximum of 90F. Substrate temperature must be least 5F above the dew point.
- Humidity must not exceed 80%.
- When required, adequate ventilation shall be provided and proper clothing and respirators worn.
- DO NOT PREMIX PART B HARDENER
- Must be applied over primed and/or coated surface.
- **Under certain conditions, an exudate can form on the surface of cured 4685W. If an additional coat of this product is required, the surface should be sanded with a fine grit medium, 150 grit or finer, and then solvent wiped prior to recoating, even if within the recoat window.**
- **Strictly adhere to published coverage rates.**

**TYPICAL PHYSICAL PROPERTIES @ 73F**

Mix Ratio A:B, by volume	1:1
Color	White
VOC (Volatile Organic Content) EPA Method 24	Compliant
SCAQMD Method 304	Compliant
<b>Coverage @ 6-8 mils WFT</b>	180-240 sq. ft. per gallon
<b>Working Time</b>	<b>45 minutes</b>
Cure Time	Dry to Touch 8-12 hours
	Recoat 4-10 hours
	<b>Full Cure 3 days</b>
Hardness ASTM D 3363	2H
Adhesion ASTM D 3359	Pass
Tensile Strength ASTM D 638	2,000 psi
Abrasion Resistance ASTM D 4060 CS-17 Wheel 1,000 cycles	20-30 mgs lost
Resistance to Elevated Temperatures MIL-D-3134J	No slip or flow at required temperature of 215F
Flammability	Self-extinguishing over concrete
Impact Resistance ASTM D 2794	Direct, 160 inch pounds Reverse, 160 inch pounds

## SURFACE PREPARATION

Proper inspection and preparation of the substrate to receive resinous material is critical. Read and follow the "Instructions for Concrete Surface Preparation" (Form G-1) for complete details.

## STORAGE / APPLICATION

### • MATERIAL DELIVERY AND STORAGE

Store materials in accordance instructions, with seals and labels intact and legible. Keep resins, hardeners, and solvents separated from each other and away from sources of ignition. One year shelf life is expected for products stored between 50°F - 90°F.

### • APPLICATION INSTRUCTIONS

1. Premix 4685WA (resin) using a low speed drill and Jiffy blade. Mix for one minute and until uniform, exercising caution not to introduce air into the material.

2. Add 1 part 4685WA (resin) to 1 part 4685B (hardener) by volume. Mix with low speed drill and Jiffy blade for three minutes and until uniform. To insure proper system cure and performance, strictly follow mix ratio recommendations.

3. 4685W may be applied via spray, roller or brush. Apply using a 1/4" nap non-shedding, urethane enamel roller at a spread rate of 180-240 sq. ft. per gallon evenly with no runs. Note: Roller application will leave a stipple finish. A final roll with a sponge roller will reduce but not eliminate stipple.

4. Allow to cure overnight. Allow to cure 48 hours before water exposure and 7 days for full chemical resistance. In cool and/or high humidity conditions, a surface film may form which can be washed with soap and water.

NOTE: Application thicknesses over 5 mils are NOT recommended. Irregular surface defects may occur. Black or dark colored substrates may require two coats. Mix one gallon at a time. Use clean, dry plastic paint trays between mixes. 3/16" short nap phenolic core nylon or lambs wool covers are required. A light 150 grit sanding, followed by solvent wipe is required for most painted surfaces.

## CHEMICAL RESISTANCE

For comprehensive chemical resistance information, consult the Chemical Resistant Guide and contact the Technical Service Department.

## 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

Refer to the MSDS sheet 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.

## Maintenance

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

## Shipping

• Destinations East of the Rocky Mountains are shipped F.O.B. Cincinnati, Ohio.

• Destinations West of the Rocky Mountains are shipped F.O.B. Victorville, California.

For specific information relating to international shipments, contact your local sales representative.

## 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(s) offered at the time of publication. Published technical data and instructions are subject to change without notice.

Consult [www.generalpolymers.com](http://www.generalpolymers.com) 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.

