



Protective & Marine Coatings

GENERAL POLYMERS® 4686 ULTRA HIGH SOLIDS ALIPHATIC URETHANE

PART A
PART B

GP4686
GP4686B01

SERIES
HARDENER

Revised September 25, 2014

PRODUCT INFORMATION

PRODUCT DESCRIPTION

GENERAL POLYMERS 4686 ULTRA HIGH SOLIDS ALIPHATIC URETHANE is specifically designed to allow for maximum flow and leveling for large expansive applications. It offers chemical resistance, and hardness combined with flexibility to provide outstanding wear resistance. Also capable of adding fine aluminum oxide for maximum wear resistance as well as surface hardness.

ADVANTAGES

- UV stable
- High solids
- Meets SCAQMD VOC
- Acceptable for use in USDA inspected facilities
- Excellent chemical resistance
- Abrasion resistant
- High gloss
- Resistant to Betadine staining
- Scuff resistant

TYPICAL USES

GENERAL POLYMERS 4686 ULTRA HIGH SOLIDS ALIPHATIC URETHANE is ideally suited for coating industrial and decorative systems in commercial, retail and high traffic areas.

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 50°F (10°C) and a maximum of 90°F (32°C). Substrate temperature must be at least 5°F (3°C) 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.
- **Strictly adhere to published coverage rates.**
- **This coating though resistant, will tire stain. Vehicular tires from cars and trucks to tractors and boat trailers are varied and have the potential to leave a stain under certain conditions. Place rubber mats or carpet pieces under the tires to avoid the issue.**

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.

PRODUCT CHARACTERISTICS

Color:	Clear
Mix Ratio:	1:1
Weight Solids:	95% ± 2%, mixed
VOC (EPA Method 24):	<50 g/L mixed; 0.41 lb/gal

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns):	4 (100)	6 (150)
~Coverage sq ft/gal (m²/L):	250 (6.4)	400 (10.2)

Drying Schedule @ 6 mils (150 microns) wet:

	@ 60°F (16°C)	@ 77°F (25°C) 50% RH	@ 90°F (32°C)
To Touch:	12 hours	6 hours	3 hours
To Recoat:			
minimum	15 hours	10 hours	8 hours
maximum	24 hours	24 hours	24 hours
Foot Traffic:		18-24 hours minimum	
Wheeled Traffic:		2 days minimum	
Full Cure:	3 days	3 days	3 days

*If maximum recoat time is exceeded, abrade surface before recoating.
Drying time is temperature, humidity, and film thickness dependent.*

Pot Life: gallon mass 40 minutes @ 73°F (23°C)

Shelf Life: Part A: 12 months, unopened
Part B: 12 months, unopened
Store indoors at 50°F (10°C) to 100°F (32°C)

Flash Point: >130°F (>54°C), ASTM D 93, mixed

Reducer / Clean up R7K15 or R6K9

PERFORMANCE CHARACTERISTICS

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles	18.5 mg loss
Adhesion	ASTM D 4541-09e1	441 psi concrete 3722 psi steel
Impact Resistance	ASTM D 2794	168 in. lbs,
Pencil Hardness	ASTM D 3363-05	H



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APPLICATION

- APPLICATION INSTRUCTIONS**

DO NOT PREMIX PART B HARDENER.

1. Premix 4686A (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 4686A (resin) to 1 part 4686B (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. Apply 4686 using a 1/4" nap roller at a spread rate of 250-400 square feet per gallon, evenly, with no puddles making sure of uniform coverage. **Take care not to puddle materials and insure even coverage.** If a second coat is required, the surface must be abraded with 80-120 grit paper or screen and tack wiped prior to second application.

4. Allow to cure 24 hours minimum before opening to traffic. In cool and/or high humidity conditions, a surface film may form which can be washed with soap and water.

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.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

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.

ORDERING INFORMATION

Packaging:

Part A: 1 gallon (3.8L) and
5 gallon (18.9L) containers
Part B: 1 gallon (3.8L) containers
5 gallons (18.9L) containers

Weight: 10.7 ± 0.2 lb/gal; 1.28 Kg/L

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

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.