



Protective & Marine Coatings

GENERAL POLYMERS® 3589 SMOOTH EPOXY FLOOR COATING

PART A GP3589
PART B GP3589B01
PART B GP3589B02

SERIES
STANDARD HARDENER
FAST CURE HARDENER

Revised September 23, 2014

PRODUCT INFORMATION

PRODUCT DESCRIPTION

GENERAL POLYMERS 3589 SMOOTH EPOXY FLOOR COATING is a high solids, clear or pigmented epoxy coating. GENERAL POLYMERS 3589 SMOOTH EPOXY FLOOR COATING has good wear resistance as a concrete coating or flooring system topcoat.

ADVANTAGES

- Easy to maintain
- Self-priming over dry concrete
- Good wear resistance
- Resistant to*:

3 Day Exposure @ 72°F	Result
Alcohol	Slight discoloration
Ethylene Glycol	Slight down glossing
Fats, Oils & Sugars	NE
Gasoline, Diesel & Kerosene	Slight discoloration
Hydrochloric Acid (<35%)	Slight discoloration
Lactic Acid (Milk)	Slight discoloration
Mineral Oils	NE
MEK	NR
Muriatic Acid	Down Gloss / Stain
Nitric Acid (<10%)	Down Gloss / Stain
Nitric Acid (<30%)	NR
PM Acetate	Slight discoloration
Phosphoric Acid (<50%)	NR
Potassium Hydroxide (<50%)	NE
Sodium Hydroxide (<50%)	NE
Sulfuric Acid (<50%)	NR
Xylene	Slight discoloration

NE = No Effect

NR = Not Recommended

TYPICAL USES

GENERAL POLYMERS 3589 SMOOTH EPOXY FLOOR COATING is an economical epoxy resin for use as an epoxy coating or topcoat for slurries, mortars and broadcast flooring systems where high chemical resistance is not required.

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). Substrate temperature must be at least 5°F (3°C) above the dew point (for lower temperature installation contact the Technical Service Department).
- *Coating may stain, change color, or downgloss upon exposure to water or chemicals.
- Light colors may require two coats for proper hiding.
- Avoid ordering this product in "white" as yellowing can occur.
- **This coating though resistant, is not a guarantee against tire staining. 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, Standard and Custom Colors
Mix Ratio:	4:1
Volume Solids:	99% ± 2%, mixed
Weight Solids:	99% ± 2%, mixed
VOC (EPA Method 24):	<50 g/L mixed; 0.41 lb/gal
Viscosity, mixed:	3,000 cps

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns):	6 (150)	20 (500)
Coverage sq ft/gal (m²/L):	160 (4.1)	200 (5.1)

Drying Schedule @ 8 mils (200 microns) wet:

Standard Cure Hardener: @ 77°F (25°C)

To touch: 4 hours

To recoat: 6 hours

Light traffic: 12 hours minimum

If maximum recoat time is exceeded, abrade surface before recoating.

Drying time is temperature, humidity, and film thickness dependent.

Pot Life: gallon mass 20 minutes @ 77°F (25°C)

Drying Schedule @ 8 mils (200 microns) wet:

Fast Cure Hardener: @ 77°F (25°C)

To touch: 2-3 hours

To recoat: 3-4 hours

Light traffic: 8-12 hours

If maximum recoat time is exceeded, abrade surface before recoating.

Drying time is temperature, humidity, and film thickness dependent.

Pot Life: gallon mass 12 minutes @ 77°F (25°C)

Shelf Life: Part A: 36 months, unopened
Part B (Standard): 36 months, unopened
Part B (Fast Cure): 18 months, unopened
Store indoors at 50°F (10°C) to 90°F (32°C)

Flash Point: 265°F (129°C), ASTM D 93, mixed

PERFORMANCE CHARACTERISTICS

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1,000 cycles	100 mg loss
Adhesion	ACI 503R	300 psi concrete failure
Flammability		Self-extinguishing over concrete
Hardness, Shore D	ASTM D 2040	70
Impact Resistance	ASTM D 2794	Direct, inch pound greater than 160, passes; Reverse, inch pound greater than 80, passes
Resistance to Elevated Temperature	MIL-D-3134J Section 4.7.5	No slip or flow at required temperature of 158°F (70°C)



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APPLICATION

APPLICATION INSTRUCTIONS

1. Premix 3589A (resin) using a low speed drill and Jiffy blade. Mix for one minute and until uniform, exercising caution not to whip air into the materials.

2. Add 4 parts 3589A (resin) to 1 part 3589B (hardener) by volume. Mix with low speed drill and Jiffy blade for three minutes and until uniform. Apply material using a 3/8" nap roller at a spread rate of 160-200 sq. ft. per gallon. Back roll with a spiked roller if necessary to help release entrapped air created from the mixing or application process.

3. Allow material to cure before applying second coat.

4. Repeat Steps 1 and 2 for seal coat application. Allow to cure 24 hours minimum before opening to light foot traffic and water exposure.

NOTE* After 20-30 minutes setup time, if required, spike roll coating to remove any entrapped air. Do not spike roll after 40 minutes.

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 quart (1.0L) and
5 gallon (18.9L) containers

Weight: 10.8 ± 0.2 lb/gal; 1.29 Kg/L
mixed, may vary by color

CHEMICAL RESISTANCE

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

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.