



Protective & Marine Coatings

GENERAL POLYMERS® 4620E STATIC DISSIPATIVE POLYURETHANE ENAMEL

PART A
PART B

GP4620E
GP4620B01

SERIES
STANDARD HARDENER

Revised September 24, 2014

PRODUCT INFORMATION

PRODUCT DESCRIPTION

GENERAL POLYMERS 4620E STATIC DISSIPATIVE POLYURETHANE ENAMEL, when installed over a conductive base, provides electrical resistance of 10⁶- 10⁹ ohms and may be used as a topcoat in a coating, slurry or troweled system. GENERAL POLYMERS 4620E STATIC DISSIPATIVE POLYURETHANE ENAMEL is formulated to meet the tight VOC restrictions imposed by many states. In addition, GENERAL POLYMERS 4620E STATIC DISSIPATIVE POLYURETHANE ENAMEL offers excellent gloss retention and color stability while resisting certain chemical attack. Resistant to aircraft & automobile fluids such as battery acid, brake fluid, gasoline, hydraulic fluids, jet fuel and Skydrol 500.

ADVANTAGES

- Ultraviolet and abrasion resistant
- Good long term gloss retention
- Chemical and stain resistant

TYPICAL USES

GENERAL POLYMERS 4620E STATIC DISSIPATIVE POLYURETHANE ENAMEL is used where static control is needed and where the resistance level of the floor must be higher than a conductive floor will allow. GENERAL POLYMERS 4620E STATIC DISSIPATIVE POLYURETHANE ENAMEL applications include areas with sensitive electronic components, clean rooms, and laboratories.

LIMITATIONS

- Urethanes are sensitive to environmental conditions.
- Must be installed over a General Polymers conductive base material such as GENERAL POLYMERS 3424 CONDUCTIVE WATER-BASED EPOXY PRIMER.
- 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 60°F (16°C) and 90°F (32°C) maximum.
- Substrate temperature must be least 5°F (3°C) above the dew point (for lower temperature installation contact the Technical Service Department).
- When required adequate ventilation shall be provided and proper clothing and respirators worn.
- All foodstuffs must be removed from the work area and areas subject to fumes during the installation and initial cure.
- Extinguish all sources of ignition during the entire installation cycle.
- Do not premix Part B hardener.
- Humidity must not exceed 80%.
- Do not install in open areas during a rain.
- **Strictly adhere to published coverage rates.**
- **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 and Standard Colors
Mix Ratio:	2:1
Volume Solids:	80% ± 2%, mixed
Weight Solids:	82% ± 2%, mixed
VOC (EPA Method 24):	<10g/L mixed; 0.08 lb/gal
Viscosity, mixed:	805 cps
Flammability:	Self-extinguishing over concrete

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns):	3 (75)	5 (100)
~Coverage sq ft/gal (m²/L):	300 (7.6)	530 (13.5)

Drying Schedule @ 4 mils (100 microns) wet:

	@ 73°F (23°C)
To touch:	6-8 hours
To recoat:	12-16 hours
Light traffic:	24-36 hours minimum
Full Cure:	7 days

*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	@ 73°F (23°C)
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Shelf Life: Part A: 12 months, unopened
Part B: 12 months, unopened
Store indoors at 50°F (10°C) to 90°F (32°C)

Flash Point: 185°F (85°C), ASTM D 93, mixed

PERFORMANCE CHARACTERISTICS

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles	35 mg loss
Adhesion	ACI 503R	300 psi concrete failure
Gloss @ 73°F/23°C, 50%RH	60° Gloss Meter	80-100 units
Impact Resistance	ASTM D 2794	Direct inch-pound greater than 170, passes Reverse, inch-pound greater than 170, passes
Pencil Hardness	ASTM D 3363	2H
Resistance to Elevated Temperature	MIL-D-3134J	No slip or flow at required temperature of 158°F (70°C)
Static Dissipative:	ANSI S7.1	10 ⁶ - 10 ⁹ ohms



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APPLICATION

APPLICATION INSTRUCTIONS

Inspect basecoat prior to application of topcoat. Test surface resistance in accordance with ANSI S7.1. Resistance range should be less than 150,000 ohms. If deviation from this range occurs, consult the Technical Service Department immediately. Must be applied over a conductive primer such as GENERAL POLYMERS 3424 WATER-BASED EPOXY CONDUCTIVE PRIMER.

1. Premix 4620EA (resin) using a low speed drill and Jiffy blade. Mix for one minute and until uniform, exercising caution not to whip air into the material.

2. Add 2 parts 4620EA (resin) to 1 part 4620B (hardener) by volume. Mix with low speed drill and Jiffy blade for three minutes and until uniform. Apply material via airless spray or a 1/4" nap roller cover at a spread rate of 300-530 sq. ft. per gallon to yield 3-5 mils WFT. **NOTE: Complete mixing of components is critical to performance, mix for a minimum of 4 minutes prior to application.**

3. Allow to cure overnight.

4. Repeat Steps 1-3 as above for second coat.

5. Allow to cure 24 hours minimum. Test surface resistance in accordance with ANSI-S7.1. Resistance range should be 10^6 - 10^9 ohms. If deviation from this range occurs, consult the Technical Service Department immediately. Inspect prior to application of topcoat.

NOTE: If a non-skid texture is requested, consult with Technical Services.

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:	10.5 ± 0.2 lb/gal; 1.26 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.

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.

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.