GP4618E STATIC DISSIPATIVE POLYURETHANE ENAMEL

PART A
GP4618E

PART B
GP4618B01

Series
Standard Hardener

Product Information

Product Description
GP4618E STATIC DISSIPATIVE POLYURETHANE ENAMEL, when installed over a conductive base, provides electrical resistance of 10^5 - 10^9 ohms and may be used as a topcoat in a coating, slurry or troweled system. GP4618E STATIC DISSIPATIVE POLYURETHANE ENAMEL is formulated to meet the tight VOC restrictions imposed by many states. In addition, GP4618E 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
GP4618E 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. GP4618E 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 GP3424 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 at least 5°F (-15°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.

Drying Schedule @ 4 mils (100 microns) wet:

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

Performance Characteristics

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Test Method</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abrasion Resistance</td>
<td>ASTM D4060, CS17 wheel, 1000 cycles</td>
<td>35 mg loss</td>
</tr>
<tr>
<td>Adhesion</td>
<td>ACI 503R</td>
<td>300 psi concrete failure</td>
</tr>
<tr>
<td>Gloss @ 73°F/23°C, 50%RH</td>
<td>60° Gloss Meter</td>
<td>80-100 units</td>
</tr>
<tr>
<td>Impact Resistance</td>
<td>ASTM D 2794</td>
<td>Direct inch-pound greater than 170, passes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reverse, inch-pound greater than 170, passes</td>
</tr>
<tr>
<td>Pencil Hardness</td>
<td>ASTM D 3363</td>
<td>2H</td>
</tr>
<tr>
<td>Resistance to Elevated Temperature</td>
<td>MIL-D-3134J</td>
<td>No slip or flow at required temperature of 158°F (70°C)</td>
</tr>
<tr>
<td>Static Dissipative</td>
<td>ASTM F 150-06</td>
<td>10^6 - 10^9 ohms</td>
</tr>
</tbody>
</table>

Recommended Spreading Rate per coat:

<table>
<thead>
<tr>
<th>Wet mils (microns)</th>
<th>Min Coverage sq ft/gal</th>
<th>Max Coverage sq ft/gal</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>300</td>
<td>5 (100)</td>
</tr>
<tr>
<td>5</td>
<td>300</td>
<td>7.6 (13.5)</td>
</tr>
</tbody>
</table>

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

Part A: 12 months, unopened
Part B: 12 months, unopened
Store indoors at 50°F (10°C) to 90°F (32°C)

Pot Life: 20 minutes @ 73°F (23°C)

Shield Life: Part A: 12 months, unopened
Part B: 12 months, unopened

continued on back
APPLICATION

Application Instructions

Inspect prior to application of topcoat. Test surface resistance in accordance with NFPA 99. 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 GP3424 CONDUCTIVE WATER-BASED EPOXY PRIMER.

1. Premix 4618EA (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 4618EA (resin) to 1 part 4618 (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.

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 ASTM F150-06. 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 technical services.

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: 10.5 ± 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.

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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