TPM® #118 MALLEABLE

General Polymers TPM #118 MALLEABLE flooring system is a 1/4" troweled mortar with an epoxy binder and metallic aggregate. The finished system has excellent resistance to impact, wear, and abrasion with chemical resistance provided by the optional topcoat.

Advantages
- Resistant to rusting
- Protects substrates from heavy impact and abrasion from mechanical forces
- Aggressive bond to properly prepared substrates
- Few installation steps speeds project turnaround

Uses
- Steel wheel traffic
- Factory floors, loading docks, and ramps
- Refuse facilities
- Drum storage areas
- Tipping floors
- Patching and overlayment of damaged floors
- Maintenance shops

Typical Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressive Strength</td>
<td>12,000 psi</td>
</tr>
<tr>
<td>ASTM C 579</td>
<td></td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>2,300 psi</td>
</tr>
<tr>
<td>ASTM C 307</td>
<td></td>
</tr>
<tr>
<td>Hardness, Shore D</td>
<td>75</td>
</tr>
<tr>
<td>ASTM D 2240</td>
<td></td>
</tr>
<tr>
<td>Flexural Strength</td>
<td>5,000 psi</td>
</tr>
<tr>
<td>ASTM C 580</td>
<td></td>
</tr>
<tr>
<td>Abrasion</td>
<td>65 mgs lost</td>
</tr>
<tr>
<td>ASTM D 2240 CS-17 Wheel, 1,000 cycles</td>
<td></td>
</tr>
<tr>
<td>Heat Deflection Temperature</td>
<td>110°F</td>
</tr>
<tr>
<td>ASTM D 648</td>
<td></td>
</tr>
</tbody>
</table>

ASTM C = Mortar system
ASTM D = Resin only
Installation
The following information is to be used as a guideline for the installation of the TPM #118 MALLEABLE System. Contact the Technical Service Department for assistance prior to application.

Surface Preparation — General
General Polymers systems can be applied to a variety of substrates, if the substrate is properly prepared. Preparation of surfaces other than concrete will depend on the type of substrate, such as wood, concrete block, quarry tile, etc. Should there be any questions regarding a specific substrate or condition, please contact the Technical Service Department prior to starting the project. Refer to Surface Preparation (Form G-1).

Surface Preparation — Concrete
Concrete surfaces shall be abrasive blasted to remove all surface contaminants and laitance. The prepared concrete shall have a surface profile equal to CSP 4-6. Refer to Form G-1.

After initial preparation has occurred, inspect the concrete for bug holes, voids, fins and other imperfections. Protrusions shall be ground smooth while voids shall be filled with a General Polymers system filler. For recommendations, consult the Technical Service Department.

Temperature
Throughout the application process, substrate temperature should be 50°F - 90°F. Substrate temperature must be at least 5°F above the dew point. Applications on concrete substrates should occur while temperature is falling to lessen offgassing. The material should not be applied in direct sunlight, if possible.

Application Information

<table>
<thead>
<tr>
<th>VOC MIXED</th>
<th>MATERIAL</th>
<th>MIX RATIO</th>
<th>THEORETICAL COVERAGE PER COAT CONCRETE</th>
<th>PACKAGING</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;50 g/L</td>
<td>Primer  3579</td>
<td>2:1</td>
<td>250 sq. ft. / gal</td>
<td>3 or 15 gals</td>
</tr>
<tr>
<td>&lt;50 g/L</td>
<td>Mortar 3561</td>
<td>4:1</td>
<td>25-27 sq. ft. / 1.25 gal @ 1/4&quot;</td>
<td>1.25 to 250 gals 120 lbs / 1.25 gal 40 lbs</td>
</tr>
<tr>
<td>&lt;100 g/L</td>
<td>Optional Seal Coat 3746</td>
<td>2:1</td>
<td>100 sq. ft. / gal</td>
<td>3 or 15 gals</td>
</tr>
</tbody>
</table>

For additional topcoat options consult the General Polymers Topcoat Selection Guide, or contact your Sherwin Williams representative.
**Primer**

**Mixing and Application**

1. Add 2 parts 3579A (resin) to 1 part 3579B (hardener) by volume. Mix with low speed drill and Jiffy mixer for three minutes and until uniform.

2. Apply via brush, roller, or spray at a rate of 250 square feet per gallon (6 WFT mils). Wait for primer to become tacky (usually 1 hour minimum). This prevents primer bleed through and sliding during mortar placement. If primer is to be allowed to cure for more than 4 hours, broadcast lightly but uniformly with clean, dry 20-30 mesh aggregate.

**Mortar**

**Mixing and Application**

1. Premix 3561A (resin) using a low speed drill and Jiffy mixer. Mix for one minute and until uniform, exercising caution not to whip air into the material.

2. Add 4 parts 3561A (1 gallon resin) to 1 part 3561B (1 quart hardener) by volume. Mix with low speed drill and Jiffy mixer for three minutes and until uniform. Place mixed 3561 into mixer. Slowly add 120 pounds (3 bags) of 5326 Malleable aggregate. Mix until aggregate is thoroughly ‘wet out’. Immediately dump mortar onto substrate and screed to desired thickness.

3. Compact and smooth the mortar using a hand or power trowel. The finished mortar should be 1/4” thick system. Every attempt should be made to trowel a smooth, level floor. Allow system to cure for 10 hours @ 73ºF prior to opening to foot traffic.

**Topcoat (Optional)**

**Mixing and Application**

1. Premix 3746A (resin) using a low speed drill and Jiffy mixer. Mix for one minute and until uniform, exercising caution not to whip air into the material.

2. Add 2 parts 3746A (resin) to 1 part 3746B (hardener) by volume. Mix with low speed drill and Jiffy mixer for three minutes and until uniform. Apply via squeegee and back roll using a 1/4” nap roller at a rate of 200 square feet per gallon (8 WFT mils).

3. Allow to cure 24 hours minimum before opening to light foot traffic.

Note: Epoxy materials will appear to be cure and “dry to touch” prior to full chemical cross linking. Allow epoxy to cure for 2-3 days prior to exposure to water or other chemicals for best performance.

**Application Equipment**

**Brush / Roller**

Use 1/4” phenolic core rollers and professional quality, medium stiff natural bristle brushes.

**Trowel**

Use steel finishing towel or epoxy mortar power trowel such as manufactured by Superior.

**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.

**Material Storage**

Store materials in a temperature controlled environment (50ºF - 90ºF) and out of direct sunlight. Keep resins, hardeners, and solvents separated from each other and away from sources of ignition.

**Maintenance**

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

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Consult www.generalpolymers.com to obtain the most recent Product Data information and Application instructions.

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