Epoxy.com Product #698 Methyl Methacrylate (MMA) Binder Resin

Fast Curing, Flexible, Resistant to Aging
Ideal for Outdoors, or When a Quick Cure is Required

Description

Epoxy.com Product #698 Methyl Methacrylate (MMA) Binder Resin is a 100% reactive, low viscosity, flexible methyl methacrylate resin for use as a binder for low resin content troweled mortars and polymer concrete. The resin is ideal for making repairs and to change the slope on floors, bridge decks and joint headers.
The polymer concrete system based on Epoxy.com Product #698 Methyl Methacrylate (MMA) Binder Resin hardens rapidly after the addition of Epoxy.com Product #695 BPO Hardener Powder. The mortar is suitable for indoor and outdoor areas subject to heavy vehicular and equipment traffic.

Advantages

- Flexible and Resistant to Aging.
- Very Fast Curing - Typically Hardens in 1 hour or less.
- VOC Compliant - Zero VOCs
- Can Be Used Even at Lower Temperatures
- Can be Formulated to be Placed up to 2.5 Inches Thick.

Considerations

- Moisture Vapor Transmission must be less than 3 lbs per ASTM-F-1869 and less than 80% RH per ASTM F-2170.
- On or below grade installation must have an efficient vapor barrier under the slab (minimum 10-15 mil).
- Do not store outside in direct sunlight, storage temperature must be less than 80° F.
- Concrete must be dry, free of dirt, waxes, curing agents and other foreign materials.

Composition

Epoxy.com Product #698 Methyl Methacrylate (MMA) Binder Resin is a 100% reactive methyl methacrylate resin.

Surface Preparation

Good surface preparation is the first necessary step to successful installation of all Resinous Flooring System. All substrates must be clean and free of all oil, grease, paint, dirt sealers laitance and any other foreign matter that may interfere with proper bonding. Follow the directions for surface preparation as outlined in Epoxy.com Surface Preparation Guide.

Color Selection

Supplied as a clear binder. Color packs are available in selected colors. Color pack mix ratio is 1 QT color pack per 5 gallon pail of Epoxy.com Product #697 Methyl Methacrylate (MMA) Binder Resin.
Product #698 Methyl Methacrylate (MMA) Resin Data

Appearance  Bluish tint, low viscosity
Viscosity @ 73.5°F, cps  140-150 cps
Weight per Gallon  8.1 lbs.
Solids Content  100%
Pot Life (working time) 73°F  20-25 min.
Compressive Strength (filled mortar), psi  3,500-4,000 psi
Tensile Strength (filled mortar), psi.  800-1,000 psi

Epoxy.com Product #698 MMA Binder Formulation Guide

Epoxy.com Product #698 Methyl Methacrylate (MMA) Binder Resin requires the adding of Epoxy.com Product #695 Hardening Powder, to start the hardening process. The amount of hardener must be adjusted to the respective surface temperature (see table below). At temperatures below 40°F, Epoxy.com Product #696 Accelerator must be used in addition to the amount of hardener used at the 40°F level (about 0.5% @ 32°F up to 3%. @ -20°F).

Epoxy.com Product #698 MMA Binder Resin - Typical Batch Formula
for Blended Mortar Aggregate Polymer Concrete (PC)

<table>
<thead>
<tr>
<th>Temp. (°F) of Resin, Air &amp; Floor Surface</th>
<th>Hardener % by Wt. Based on Wt. of #698 Resin</th>
<th>Hardener by Vol. (oz.) Based on Gallon of #698 Resin</th>
<th>Pot Life (min.)</th>
<th>Hardness Time (min.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+41</td>
<td>6.0</td>
<td>10.8</td>
<td>Approx. 25</td>
<td>Approx. 55</td>
</tr>
<tr>
<td>+50</td>
<td>4.0</td>
<td>7.5</td>
<td>Approx. 20</td>
<td>Approx. 45</td>
</tr>
<tr>
<td>+68</td>
<td>2.5</td>
<td>4.5</td>
<td>Approx. 20</td>
<td>Approx. 45</td>
</tr>
<tr>
<td>+86</td>
<td>1.0</td>
<td>1.8</td>
<td>Approx. 20</td>
<td>Approx. 45</td>
</tr>
</tbody>
</table>
Typical Batch Size for Epoxy.com Product #698 MMA (MMA) - Self-Leveling

<table>
<thead>
<tr>
<th>Material</th>
<th>% Parts by Wt</th>
<th>Wt.</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>#698 Resin</td>
<td>14.0</td>
<td>8.1 lbs</td>
<td>1.0 gal.</td>
</tr>
<tr>
<td>#82 Blended Mortar Aggregate</td>
<td>85</td>
<td>50 lbs</td>
<td>3.25 gal</td>
</tr>
<tr>
<td>Pigment Pack</td>
<td>n/a</td>
<td>n/a</td>
<td>6.4 vol. oz.</td>
</tr>
<tr>
<td>#695 BPO Hardener</td>
<td>Varies by temp</td>
<td>Varies by temp</td>
<td>Varies by temp</td>
</tr>
</tbody>
</table>

Yield: ±3.0 gal Mortar (0.4 Cubic Foot)

Additional Aggregate for Greater than 1/2 inch - Additional Aggregate per Gallon of #698 MMA Binder

<table>
<thead>
<tr>
<th>Thickness of placement</th>
<th>Aggregate Size</th>
<th>Weight %</th>
<th>Weight</th>
<th>Vol.</th>
<th>Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1/2 inch</td>
<td>No Additional</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>0.4 cu ft</td>
</tr>
<tr>
<td>1/2 to 1 inch</td>
<td>1/8&quot; x 1/16&quot;</td>
<td>25%</td>
<td>12.0 lbs</td>
<td>0.9 gal</td>
<td>0.49 cu ft</td>
</tr>
<tr>
<td>1 to 2 inch</td>
<td>1/16&quot; x 3/8&quot;</td>
<td>50%</td>
<td>24.0 lbs</td>
<td>1.8 gal</td>
<td>0.57 cu ft</td>
</tr>
<tr>
<td>Greater than 2 inches</td>
<td>3/8&quot; x 5/8&quot;</td>
<td>75%</td>
<td>36.0 lbs</td>
<td>2.7 gal</td>
<td>0.63 cu ft</td>
</tr>
</tbody>
</table>

Installation

Epoxy.com Product #698 Methyl Methacrylate (MMA) Binder Resin requires the adding of Epoxy.com Product #695 Hardening Powder, to start the hardening process. The amount of hardener must be adjusted to the respective surface temperature (see table below). Mix Epoxy.com Product #698 Methyl Methacrylate (MMA) Binder Resin and Epoxy.com Product #695 BPO Hardener Powder for 3 minutes until no lumps are present. Add the additional aggregates to extend the mortar. Apply to the primed surface using a trowel or a gauge rake.

Epoxy.com Product #698 Methyl Methacrylate (MMA) Binder Resin requires a top coating with Epoxy.com MMA or Epoxy.com Sealer appropriate for the flooring application. Contact Epoxy.com Technical Support Department for more information.

Availability

Contact Epoxy.com Customer Service Department

Storage

Store in a cool and dry place, below 80°F, out of direct sunlight. Do not store near open flame or food. Shelf life is 4-6 months in the original unopened containers

Technical Support

Call Epoxy.com Technical Support Department with any technical support questions.

Proper mixing and installation is critical to the optimal success of all product. See Installation Tips, Techdata, & MSDS for more details on our products. Be sure to contact us with any questions and/or concerns that you have.

For more information please contact:

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