FasTop™ 12SL Self-Leveling Urethane Slurry System

General Polymers  FasTop 12SL  SELF-LEVELING URETHANE SLURRY SYSTEM is a self-leveling slurry to be applied at 1/16" smooth finish or broadcast with aggregate to yield 1/8" with a non-skid finish,  FasTop 12SL  can be applied with a 3/8" x 3/8" notched squeegee or notched trowel, or screed rake.  FasTop 12SL  is designed for light to moderate traffic and abuse, while still providing the many benefits of a urethane concrete system.  For heavier abuse or traffic see other FasTop 12 Systems.  It is designed to protect concrete and steel substrates from thermal shock, impact, corrosion, and chemical attack.

Advantages
- Can be applied to "green" concrete
- Rapid cure and hardness development
- Water based
- Hot cooking oil and steam resistance
- Low temperature cure
- Will not lose bond due to thermal shock
- Impact resistant
- Moisture Resistant
- Unlimited MVER/RH when installed at 1/8".  Up to 90% RH or 8 lb MVER when installed at 1/16" with non permeable finish
- Acceptable for use in USDA inspected facilities
- Resistant to:
  - 28 Day Exposure @ 72ºF
  - Alcohol    NE
  - Ethylene Glycol   NE
  - Fats, Oils & Sugars  NE
  - Gasoline, Diesel & Kerosine  NE
  - Hydrochloric Acid (<35%)  NE
  - Lactic Acid (Milk)  NE
  - Mineral Oils  NE
  - Most Organic Solvents  NE
  - Muriatic Acid  NE
  - Nitric Acid (<10%)  NE
  - Nitric Acid (<30%)  Slight Softening
  - PM Acetate  NE
  - Phosphoric Acid (<50%)  NE
  - Potassium Hydroxide (<50%)  NE
  - Sodium Hydroxide (<50%)  NE
  - Sulfuric Acid (<50%)  Slight Gloss Loss
  - Water  NE
  - Xylene  NE

Limitations
- Protect material from freezing

Typical Physical Properties

| Color| Red, Light Gray or Dark Gray
| Decorative Upgrade| Selected Ceramic Carpet Blends
<table>
<thead>
<tr>
<th>28 Day Exposure @ 72ºF</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>NE= No Effect</td>
</tr>
<tr>
<td>Ethylene Glycol</td>
<td>NE</td>
</tr>
<tr>
<td>Fats, Oils &amp; Sugars</td>
<td>NE</td>
</tr>
<tr>
<td>Gasoline, Diesel &amp; Kerosine</td>
<td>NE</td>
</tr>
<tr>
<td>Hydrochloric Acid (&lt;35%)</td>
<td>NE</td>
</tr>
<tr>
<td>Lactic Acid (Milk)</td>
<td>NE</td>
</tr>
<tr>
<td>Mineral Oils</td>
<td>NE</td>
</tr>
<tr>
<td>Most Organic Solvents</td>
<td>NE</td>
</tr>
<tr>
<td>Muriatic Acid</td>
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<td>Nitric Acid (&lt;10%)</td>
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</tr>
<tr>
<td>PM Acetate</td>
<td>NE</td>
</tr>
<tr>
<td>Phosphoric Acid (&lt;50%)</td>
<td>NE</td>
</tr>
<tr>
<td>Potassium Hydroxide (&lt;50%)</td>
<td>NE</td>
</tr>
<tr>
<td>Sodium Hydroxide (&lt;50%)</td>
<td>NE</td>
</tr>
<tr>
<td>Sulfuric Acid (&lt;50%)</td>
<td>Slight Gloss Loss</td>
</tr>
<tr>
<td>Water</td>
<td>NE</td>
</tr>
<tr>
<td>Xylene</td>
<td>NE</td>
</tr>
<tr>
<td>Abrasion Resistance</td>
<td>ASTM D 4060, CS-17 Wheel, 1,000 cycles</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>ASTM C 307</td>
</tr>
<tr>
<td>Compressive Strength</td>
<td>ASTM C 579</td>
</tr>
<tr>
<td>Flexural Strength</td>
<td>ASTM C 580</td>
</tr>
<tr>
<td>Adhesion</td>
<td>ACI 503R</td>
</tr>
<tr>
<td>Impact Resistance</td>
<td>MIL-D-3134, Sec.4.7.3</td>
</tr>
<tr>
<td>Compressive Strength</td>
<td>ASTM D 2240</td>
</tr>
<tr>
<td>Flammability</td>
<td>Self-Extinguishing</td>
</tr>
<tr>
<td>Critical Radiant Flux</td>
<td>&gt;1.0</td>
</tr>
<tr>
<td>Smoke Density</td>
<td>ASTM E 648</td>
</tr>
<tr>
<td>Coefficient of Friction</td>
<td>ASTM E 662</td>
</tr>
<tr>
<td>Service Temperature at 3/16&quot;</td>
<td>ASTM D 2047</td>
</tr>
<tr>
<td>Shrinkage</td>
<td>-50°F - 300°F</td>
</tr>
<tr>
<td>Water Absorption</td>
<td>Nil</td>
</tr>
</tbody>
</table>

Uses
- Warehouses
- Aircraft Hangars
- Manufacturing Flooring
- Garages
Installation

General Polymers materials shall only be installed by approved contractors. The following information is to be used as a guideline for the installation of the FasTop 12SL SELF-LEVELING URETHANE SLURRY 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 3-4. Refer to Form G-1. Consult the Technical Service Department if oil or grease is present.

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.

Limitations

The substrate must be structurally sound, cleaned of any foreign matter that will inhibit adhesion.

Do not apply in temperatures below 40°F or above 85°F or when relative humidity is greater than 85%. If substrate is not concrete or metal as described in Surface Preparation (Form G-1) then do not apply. Call Technical Service Department for recommendation. Working time is reduced with air movement and high humidity.

When installing FasTop 12SL, if encountering concrete outgassing, please discontinue installation and apply 3477 Epoxy Water Emulsion Primer / Sealer. Allow to dry until tack free and proceed with the FasTop 12SL installation.

- Do not featheredge.
- Do not mix partial units.
- Do not hand mix. Do not let mixed material sit in a bucket, even a 2-3 minute delay in pouring will reduce working time.
- Allow FasTop 12S/SL to cure a minimum of 12 hrs prior to optional topcoat(s) other than GP4090TC
- If patching, sloping, filling joints, etc. with any FasTop materials, allow the repair material to cure for a minimum of 8 hours before covering with 12S or12SL.
- Do not apply to cracked or unsound substrates.
- Do not install outside, call Technical Service Department.

Full chemical resistance is achieved after a seven (7) day cure. Consult the Technical Service Department for specific chemical resistance.

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 substrate should occur while temperature is falling to lessen offgassing. The material should not be applied in direct sunlight, if possible. Protect material from freezing prior to installation.

<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;75 g/L</td>
<td>Optional Primer for outgassing</td>
<td>3477</td>
<td>2:1</td>
<td>250 sq. ft. / gal</td>
</tr>
<tr>
<td>&lt;50 g/L 0</td>
<td>Slurry 1/16&quot; (Optional)</td>
<td>4080 5035</td>
<td>Pre-measured unit 35 lbs</td>
<td>60-65 sq. ft. / unit 35 lbs.</td>
</tr>
<tr>
<td>&lt;50 g/L 0</td>
<td>Slurry 1/8&quot; Broadcast Standard Dry Silica Sand 20-40 mesh</td>
<td>4080 5035 5310-8</td>
<td>Pre-measured unit 35 lbs To Excess</td>
<td>60-65 sq. ft. / unit 35 lbs. 400 lbs / 1,000 sq.ft.</td>
</tr>
<tr>
<td>&lt;50 g/L 0</td>
<td>Seal Coat</td>
<td>4090TC 5095</td>
<td>Pre-measured A and B components Plus 8 lbs aggregate (GP5095) TC = 1.25 gallons per kit</td>
<td>80-100 sq. ft. / unit</td>
</tr>
</tbody>
</table>

Application Information — Surface Prep Profile CSP 3-4
Primer

Mixing and Application

1. Premix 3477A (resin) and 3477B (hardener) separately, 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 2 parts 3477A (resin) to 1 part 3477B (hardener) by volume. Mix with low speed drill and Jiffy blade for three minutes and until uniform. DO NOT mix more material than can be used within 4 hours. Apply material with a short nap roller at a spread rate of 250 sq. ft. per gallon.

DO NOT ALLOW TO PUDDLE. Any uneven or textured surfaces will require more material than an even surface.

Slurry @ 1/16”

Mixing and Application

DO NOT PREMIX 4080 PART B HARDENER. OVER EXPOSURE TO AIR EFFECTS PHYSICAL PROPERTIES

1. Add 4080A (resin) to 4080B (hardener) and mix with low speed drill and Jiffy mixer until uniform.

2. Pour 35 lbs. 5035 aggregate and 1 pre-measured unit (1 gal Part A: short-filled gal Part B) until no lumps remain. Immediately pour mixed material onto the substrate and pull out using a 3/8” x 3/8” notched squeegee or notched trowel, or screed rake. Place all material within 15 minutes. Back roll with a loop roller to assist leveling. Allow material to self-level (2-5 minutes).

3. Allow to cure (Cure times vary depending on environmental conditions).

4. Apply topcoat options or use as a base coat for other General Polymers Brand systems.

Slurry @ 1/8”

Mixing and Application

DO NOT PREMIX 4080 PART B HARDENER. OVER EXPOSURE TO AIR EFFECTS PHYSICAL PROPERTIES

1. Add 4080A (resin) to 4080B (hardener) and mix with low speed drill and Jiffy mixer until uniform.

2. Pour 35 lbs. 5035 aggregate and 1 pre-measured unit (1 gal Part A: short-filled gal Part B) until no lumps remain. Immediately pour mixed material onto the substrate and pull out using a 3/8” x 3/8” notched squeegee or notched trowel, or screed rake. Place all material within 15 minutes. Back roll with a loop roller to assist leveling. Allow material to self-level (2-5 minutes).

3. Broadcast Silica Sand (20-40 Mesh) to saturation (about 400# per 1000 square feet).

4. Allow to cure for a minimum of 4-5 hours, sweep off excess sand with a clean, stiff bristled broom. Clean sand can be saved for future use. All imperfections such as high spots should be smoothed before the application of the seal coat.

NOTE: Dry Silica Sand distribution is critical to the success of the application. The floor’s finished appearance depends on the manner in which the sand has been applied. In grass seed like fashion, allow the sand to fall after being thrown upward and out. DO NOT THROW DOWNWARD AT A SHARP ANGLE USING FORCE.

5. Allow slurry to cure for a minimum of 4 hours before applying topcoat. NOTE: If applying any topcoat other than 4090TC allow the slurry to cure for 12 hours.

Topcoat

Mixing and Application

DO NOT PREMIX Part A or Part B

1. Combine 4090TCA (resin) with GP5095 Part C (aggregate) TC = 1.25 gallons per kit and mix until lump free, approximately 60-90 seconds, the product will thicken and become creamy, which lessens the potential for fine cement/pigment balls to form. Add part B and mix until fully combined and uniform in color, approximately 30 seconds.

2. Apply 4090TC using trowel, squeegee, or grout float and backroll with a 1/4” - 3/8” nap roller to remove any marks and provide uniform texture, in thicker films >10 mils loop rollers may also prove effective. Spread at a rate of 80-100 square feet per unit evenly, with no puddles making sure of uniform coverage.

NOTE: Do not dip and roll. Do not roll out of a puddle or ribbon. Must apply using squeegee or trowel.

3. Allow to cure 6 hours minimum before opening to light foot traffic. If recoating is required, abrade surface before recoating.

* When applied direct to concrete, FasTop 12TC can be loop rolled after 20-30 minutes to create a non-skid coating without the addition of broadcast aggregate. Contact Tech Service for details.

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. 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 (50°F – 90°F) 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.

Warranty

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