FasTop™ S
Urethane Slurry System

**General Polymers FasTop S URETHANE SLURRY SYSTEM** is a self-leveling slurry to be applied at 3/16” thickness and broadcast to yield a 1/4” - 3/8” finished system. **FasTop S** can be applied with a pin rake, screed rake or flat trowel. It is designed to protect concrete, wood and steel substrates from thermal shock, impact, corrosion, chemical attack and abrasion. A decorative quartz broadcast may be specified as **FasTop S-U1** an upgrade to the standard system.

**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 Resistance
- No moisture testing required.
- 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%): Slight Softening
    - 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**

<table>
<thead>
<tr>
<th>Property</th>
<th>Red, Light Gray or Dark Gray</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decorative Upgrade</td>
<td>Selected Ceramic Carpet Blends</td>
</tr>
<tr>
<td>Cure Time</td>
<td>4-5 hours</td>
</tr>
<tr>
<td>Recast</td>
<td>6-8 hours</td>
</tr>
<tr>
<td>Foot Traffic</td>
<td>10-12 hours</td>
</tr>
<tr>
<td>Full Service</td>
<td></td>
</tr>
<tr>
<td>Abrasion Resistance</td>
<td>20-30 mgs lost</td>
</tr>
<tr>
<td>ASTM D 4060, CS-17 Wheel, 1,000 cycles</td>
<td>75</td>
</tr>
<tr>
<td>Hardness, Shore D</td>
<td></td>
</tr>
<tr>
<td>ASTM D 2240</td>
<td></td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>550-600 psi</td>
</tr>
<tr>
<td>ASTM C 307</td>
<td>5,000 psi</td>
</tr>
<tr>
<td>Compressive Strength</td>
<td></td>
</tr>
<tr>
<td>ASTM C 579</td>
<td>3,700 psi</td>
</tr>
<tr>
<td>Flexural Strength</td>
<td></td>
</tr>
<tr>
<td>ASTM C 580</td>
<td></td>
</tr>
<tr>
<td>Flammability</td>
<td>Self-Extinguishing</td>
</tr>
<tr>
<td>Critical Radiant Flux</td>
<td>over concrete</td>
</tr>
<tr>
<td>ASTM E 648</td>
<td>&gt;1.0</td>
</tr>
<tr>
<td>Smoke Density</td>
<td>287-346</td>
</tr>
<tr>
<td>ASTM E 662</td>
<td></td>
</tr>
<tr>
<td>Adhesion</td>
<td>300 psi</td>
</tr>
<tr>
<td>ACI 503R</td>
<td>concrete failure</td>
</tr>
<tr>
<td>Impact Resistance</td>
<td>Withstands 16 ft. lbs</td>
</tr>
<tr>
<td>MIL-D-3134, Sec.4.7.3</td>
<td>without cracking, delamination</td>
</tr>
<tr>
<td>Coefficient of Friction</td>
<td>&gt;0.80</td>
</tr>
<tr>
<td>ASTM D 2047</td>
<td></td>
</tr>
<tr>
<td>Service Temperature at 3/16”</td>
<td>-50ºF - 300ºF</td>
</tr>
<tr>
<td>Shrinkage</td>
<td>Nil</td>
</tr>
<tr>
<td>Water Absorption</td>
<td>Nil</td>
</tr>
</tbody>
</table>

**Uses**
- Food processing kitchens
- Commercial kitchens
- Food and Beverage plants
- Sugar processing plants
- Meat and Poultry plants
- Restrooms and concession stands
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 S 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 4-6. 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 40º F or above 85º 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 S, 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 S 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.
- 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 50ºF – 90ºF. Substrate temperature must be at least 5ºF 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.

Application Information — Surface Prep Profile CSP 4-6

<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>0</td>
<td>Cove Base</td>
<td>4040</td>
<td>2:1</td>
<td>300 sq. ft./gal</td>
</tr>
<tr>
<td>0</td>
<td>4060</td>
<td></td>
<td>1 unit</td>
<td>15-20 lin ft @ 6&quot; cove 1&quot; radius 30 lbs</td>
</tr>
<tr>
<td>0</td>
<td>5055</td>
<td></td>
<td>2:1</td>
<td>250 sq. ft./gal</td>
</tr>
<tr>
<td>&lt;200 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</td>
<td>Slurry 3/16&quot;</td>
<td>4050</td>
<td>Pre-measured unit</td>
<td>25-30 sq. ft./unit @ 1/4&quot; 16-20 sq. ft./unit @ 3/8&quot; 44 lbs. 500 lbs / 1,000 sq.ft.</td>
</tr>
<tr>
<td>0</td>
<td>Broadcast Standard Dry Silica Sand 20-40 mesh</td>
<td>5050</td>
<td>44 lbs</td>
<td>2 gals (short filled)</td>
</tr>
<tr>
<td>0</td>
<td>5310-8</td>
<td></td>
<td>To Excess</td>
<td>44 lbs. 50 lbs.</td>
</tr>
<tr>
<td>&lt;50 g/L</td>
<td>Seal Coat</td>
<td>4090TC</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./per unit</td>
</tr>
<tr>
<td>0</td>
<td>5059</td>
<td></td>
<td>0.9 gal</td>
<td>8 lbs.</td>
</tr>
<tr>
<td>&lt;100 g/L</td>
<td>Decorative upgrade Slurry 3/16&quot;</td>
<td>4050</td>
<td>Pre-measured unit</td>
<td>25-30 sq. ft./unit @ 1/4&quot; 16-20 sq. ft./unit @ 3/8&quot; 44 lbs. 500 lbs / 1,000 sq.ft.</td>
</tr>
<tr>
<td>0</td>
<td>5050</td>
<td></td>
<td>2 gals (short filled)</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>5900F</td>
<td></td>
<td>44 lbs. 50 lbs.</td>
<td></td>
</tr>
<tr>
<td>&lt;100 g/L</td>
<td>Seal Coat</td>
<td>3746</td>
<td>2:1 Pre-measured units</td>
<td>250 sq. ft./gal</td>
</tr>
<tr>
<td>0</td>
<td></td>
<td></td>
<td>3 or 15 gals</td>
<td></td>
</tr>
</tbody>
</table>

For additional topcoat options consult the General Polymers Topcoat Selection Guide, or contact your Sherwin Williams representative.
Cove Base
Cove base should be installed prior to the floor. Tape out cove with duct tape or a good quality masking tape. Terrazzo strips will also work.

Priming: Prime wall with 4040 FasTop Urethane Primer. Primer only has a 10 minute pot life. Be sure to prime entire surface and about halfway onto tape. Prime only what cove base that can be installed within 30 minutes. Begin installing cove base right away – no need to wait for primer to tack up.

Mixing: Do not mix partial units, the fine aggregate and pigment can and will separate. A drill and a paddle work the best, but a KOL mixer works well also. Mix pre-measured unit of 4060A for one minute. Add 4060B pre-measured unit and mix. Slowly add 5055 aggregate and mix until thoroughly wet out. Immediately pour mixed material out of bucket, in a bead, next to the wall. Rough apply cove mortar using a trowel. Do not worry about trowel marks at this time; just get all the mixed material applied to the wall. Material will need to be finished within approximately 20 minutes depending on temperature. Placing a halogen light next to cove base will cast shadows and assist on finishing the cove base with minimal waves and/or trowel marks. Use a minimum of a 3/4” radius cove trowel and finish cove base. Any smaller may result in a loss of the radius once the floor is tied in. Lightly misting cove trowel with water, as a trowel lube, works well - Do not use isopropyl alcohol. Carefully remove tape and finish rough edges. Install floor once cove is hard to the touch, about 2 ½ to 3 hours.

Required Tools: Drill, proper mixing paddle, 3” x 8” trowel works best to apply, margin trowel, and a radius cove trowel – Minimum of 3/4” but 1” is preferred.

Primer Optional for outgassing
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 Coat
Mixing and Application
DO NOT PREMIX 4050 PART B HARDENER. OVER EXPOSURE TO AIR EFFECTS PHYSICAL PROPERTIES
1. Add 4050A (resin) to 4050B (hardener) and mix with low speed drill and Jiffy mixer for 15-20 seconds, begin adding aggregate.
2. Blend materials until no lumps remain. Immediately pour mixed material onto the substrate and pull out using a pin rake, screed rake or flat trowel. 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 5310-8 Silica Sand (20-40 Mesh) to saturation (about 500# per 1000 square feet). As an upgrade 5900F Ceramic Granule Blends may be used for broadcast for a more decorative finish.
4. Allow to cure for a minimum of 3 hrs before sweeping excess, allow for more time in temperatures below 55F. 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.

NOTE: At substrate temperature less than 50ºF, the application will be adversely affected.

Seal Coat (Standard)
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, 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.
3. Allow to cure 6 hours minimum before opening to light foot traffic. If recoating is required, abrasive surface before recoating.

Seal Coat - (Upgrade )
Mixing and Application
(When using decorative quartz broadcast, use clear seal coat options according to the following instructions.)
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 until uniform.
3. Apply 3746 to floor in thin bands and pull out using a red rubber squeegee at a spread rate of 100 sq. ft. per gallon to yield 16 mils WFT. Allow material to cure overnight.

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 (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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