# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>COLLOIDAL SILICA &amp; CEMENT</td>
<td>3</td>
</tr>
<tr>
<td>LYTHIC DENSIFIERS</td>
<td>4</td>
</tr>
<tr>
<td>DENSIFIER &amp; XL TIS</td>
<td>5-8</td>
</tr>
<tr>
<td>LYTHIC PROTECTOR</td>
<td>9</td>
</tr>
<tr>
<td>PROTECTOR TIS</td>
<td>10-13</td>
</tr>
<tr>
<td>LYTHIC SPD PROTECTOR</td>
<td>14</td>
</tr>
<tr>
<td>SPD PROTECTOR TIS</td>
<td>15-18</td>
</tr>
<tr>
<td>LYTHIC CLEANER</td>
<td>19</td>
</tr>
<tr>
<td>CLEANER TIS</td>
<td>20-22</td>
</tr>
<tr>
<td>LYTHIC DAY1</td>
<td>23</td>
</tr>
<tr>
<td>DAY1 TIS</td>
<td>24-27</td>
</tr>
</tbody>
</table>
**THE HEART OF LYTHIC TECHNOLOGY**

**COLLOIDAL SILICA** is at the heart of Lythic technology. It is a substance that reacts with the chemistry of concrete to produce more cementitious material, translating into denser concrete with greater strength.

Concrete is a mixture of Portland cement, water and aggregate. Water reacts with Portland cement (“cement hydration”), forming a new substance called **CEMENT PASTE**. At first, it is soft or liquid, but hardens within a few hours into crystal-like mineral structures. This hardening occurs because of chemical changes, not because of drying.

Cement paste binds the aggregate together to form concrete. The “active ingredients” that do the binding are called **CALCIUM SILICATE HYDRATES** (C-S-H). Concrete strength is determined by the strength of the cement paste. Aggregate adds strength mechanically, but it depends on the paste holding it in place.

**CALCIUM HYDROXIDE**, commonly called lime, is a by-product of hydration that can make up as much as 25% of the cement paste. It does not add strength, has no beneficial effects and can cause discoloration (“EFFLORESCENCE”) or damage under some conditions. Calcium hydroxide is the main cause of concrete dusting.

**POZZOLANS** are substances that react with calcium hydroxide to form additional C-S-H, most of which (**FLY ASH, SILICA FUME**), can only be added to concrete while it is being mixed. Colloidal silica densifiers are pozzolans that can be added to the surface of concrete after it has hardened (“cured”). They penetrate the surface pores of the concrete, react with lime found there to make new C-S-H, hardening the top layer.

Colloidal silica can be added to concrete after it has hardened or while it is fresh. It is virtually pure, nano-scale silica particles suspended in a liquid. It reacts very efficiently and leaves virtually no residue. It bonds to concrete and to itself, achieving a fast buildup of hard material.

Other densifiers are silicates, combinations of silica with mineral salts (sodium, potassium, or lithium). They do not react as efficiently as pure nano-sized silica, and the salt residues can create problems. They are also more alkaline (caustic) than colloidal silica, making them more dangerous to handle and invoking hazardous waste rules in some locations.
LYTHIC DENSIFIER with reactive colloidal silica is 99.5% pure silica, suspended through a proprietary “green” manufacturing process in an ultra-low surface tension liquid, allowing for greater penetration. It reacts with concrete to increase surface density, making it less permeable to liquids and improving impact and abrasion resistance. Lythic’s nano-sized silica particles react with lime and bond directly to silica already in the concrete. Silica bonding results in greater hardening than standard densification. Reactive colloidal silica bonds and hardens decorative cemntitious overlays that are low-lime and do not react well with sodium, lithium or potassium silicates.

LYTHIC XL is a larger particle-size version of Lythic Densifier, designed for fast build-up for burnishing, and to repair soft slab surfaces.

FEATURES & BENEFITS:
- Saves time and labor
- No hazardous waste removal
- Prevents dusting and increases durability
- Reacts within minutes
- No surface residue to scrub off
- No whitening when dry
- Low viscosity for quicker penetration
- Safer pH level (less than 10 pH)
- Will not contribute to alkali-silica reaction (ASR)
- Concentrate and ready-to-use formulates
001: Product Description
Lythic Densifier and Lythic XL Densifier with reactive colloidal silica are densifiers/hardeners for concrete, used to improve the performance and appearance of concrete floors. They increase surface hardness, compressive strength, abrasion resistance, and liquid penetration resistance.

Lythic Densifier and Lythic XL Densifier are 99.5% pure silica of nano-particles, suspended in an ultra-low surface tension liquid using a proprietary, “green” manufacturing process. It reacts with calcium hydroxide (aka free lime) in the concrete matrix to create additional calcium silicate hydrates (C-S-H), the active binder in cement paste which becomes a permanent part of the concrete.

Lythic Densifier and Lythic XL Densifier reduce dusting, efflorescence, and ASR. It is a zero-VOC, non-toxic, safe-to-handle liquid that does not require scrubbing in, removal, or hazardous residue disposal and does not leave discoloring mineral salt deposits on concrete.

Lythic Densifier works extremely well on all concrete types. Particles are approximately 5 nanometers (5nm) ensuring superior penetration.

Lythic XL Densifier is specifically designed to work with more porous concrete with a larger average 50 nanometer (50nm) particle size.

002: Features & Advantages
- Simple spray application
- Prevents dusting
- Hardens surface
- Increases impact resistance
- Improves abrasion resistance, long term durability
- Reduces capillary size to make the surface less porous
- Increasing resistance to liquid penetration
- Resistant to staining
- Bonds to silica in concrete
- Extends service life of older slabs
- Works with low-lime decorative cementitious overlays
- Does not yellow or whiten concrete
- Safe to handle – lower pH than silicates
- Fast reacting – one hour or less

003: Sustainability
Lythic Densifiers increase the durability and performance of a concrete surface, extending its service life and minimizing materials and energy consumption for its replacement.
- South Coast Air Quality Management District compliant
- Zero-VOC formula
- Ships as concentrate to lower environmental impacts
- Reduced shipping and storage costs
- No hazardous waste created
- Qualifies for LEED credits

004: Materials Packaging
Lythic Densifiers Concentrate 4:1 (Red Lythic Logo)
- 1 gallon / 3.78 liter jug
- 5 gallon / 19 liter pail
- 55 gallon / 208 liter drum
- 270 gallon / 1021 liter tote (IBC)

*Note the concentrated product will yield 5 times the volume when mixed 4:1 with clean potable water.

Lythic Densifiers Ready-to-Use (Green Lythic Logo)
- 1 gallon / 3.78 liter jug
- 5 gallon / 19 liter pail
- 55 gallon / 208 liter drum
- 270 gallon / 1021 liter tote (IBC)

005: Coverage Rates
Lythic Densifiers will yield different coverage rates depending on the porosity of the floor. Test on a small sample area to determine appropriate application rate and technique before applying to entire project area.
*(See Section 009: Project Testing)

Use these coverage rates as a starting point to determine necessary application rate. Coverage rates are based on a mixed ready-to-use (RTU) gallon of Lythic Densifier & XL Densifier

<table>
<thead>
<tr>
<th>Concrete Condition</th>
<th>Coverage Rate (US, per gallon)</th>
<th>Coverage Rate (Metric, per liter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Porosity Concrete</td>
<td>250 - 400 ft²</td>
<td>6.1 - 9.8 m²</td>
</tr>
<tr>
<td>Medium Density Concrete</td>
<td>300 - 500 ft²</td>
<td>7.4 - 12.3 m²</td>
</tr>
<tr>
<td>Hard Concrete</td>
<td>400 - 600 ft²</td>
<td>9.8 - 14.7 m²</td>
</tr>
<tr>
<td>High Density Concrete</td>
<td>500 - 700 ft²</td>
<td>12.3 - 17.2 m²</td>
</tr>
</tbody>
</table>
006: Storage & Shelf Life
Lythic Densifiers should be kept in the original container when possible with the lid fastened tightly. Lythic Densifier & XL has an optimized shelf life of 24 months from the date of manufacture.
- Keep in a dry place
- Temp range of 40-100°F or 4-38°C
- Do not allow to freeze

MIXING & APPLICATION
007: Mixing & Dilution
Lythic Densifier & XL Densifier are available in two concentrations. Consult the package label to ensure correct mixing and usage.

Lythic Densifiers (Red Lythic Logo) is shipped and packaged in concentrate formula. Before use, it must be diluted with clean potable water, 4:1.
1) Before opening, agitate Lythic Densifier concentrate.
2) Use clean potable water to mix with Lythic Densifier.
3) Mix in a container or directly into sprayer.
4) Ratio, one part Lythic Densifier to four parts water.
5) Mix, agitate or stir well.

Lythic Densifiers (Green Lythic Logo) is shipped and packaged in Ready-to-Use formula requiring no mixing.
1) Before opening, agitate Lythic Densifiers Ready-to-Use.
2) Pour Lythic Densifiers directly into sprayer.

008: Equipment
Apply Lythic Densifiers using a low-pressure pump sprayer. Use either a fan tip or a cone tip for even spraying. Automatic low pressure sprayers can also be used for larger projects.

009: Project Testing
To assure that desired performance and appearance specifications are met, test a sample area of each slab to be treated, using the proposed treatment methods and techniques, coverage rates, and equipment, with the work performed by the same installation personnel who will do the project.

Test section should be large enough to properly represent the overall slab. Check whether coverage rate is appropriate, that concrete accepts the product, and that product is reacting with slab. NOTE: Grinding and polishing operations may significantly alter slip-resistance of surface. To determine that safe levels of wet and dry slip-resistance are achieved, it is necessary to apply the complete treatment, including the protection layer. Lythic Protector and Lythic SPD Protector increase slip resistance.

010: Pre-Application
Advanced planning is critical to all successful concrete work, notations worth considering when using Lythic Products.

- Any adjacent areas, surfaces, or objects not intended to be treated with Lythic Densifiers should be protected from overspray or drift with plastic sheeting or other proven protective material.

- Surface must be clean and structurally sound, and clear of membrane-forming curing compounds, oils, dust and other surface contaminants that will prevent Lythic Products from having full contact with the concrete. Do not use acidic or aggressive detergents when cleaning before or after application of Lythic Products. Use Lythic Cleaner or other pH neutral cleanser.

- Measure area (square feet: ft² / square meter: m²) that will require Lythic Product.

- Mix an appropriate quantity of Lythic Products for job-size, per instructions in Section 007: Mixing & Dilution, using estimated coverage rates in Section 005: Coverage Rates or the coverage chart on page 1.

- Check that sprayers and tips are in working order.

- Designate trained operator(s) to apply Lythic Products throughout project to ensure consistent application.
011: Application Guidelines
Lythic Densifiers can be applied to new or existing concrete. Application may vary depending on the type of project and other jobsite specifics. The information provided is best practice guidelines for Lythic Densifiers. Every project will present variables that may require adjustment of application procedures during the job. These guidelines are based on terminology used within the concrete and flooring industry sector.
*(See coverage chart on page 1)*

011-a: General Application Instructions
1) Agitate Lythic Densifiers RTU mixture before pouring into sprayer.

2) Pour Lythic Densifiers RTU mixture into sprayer. Keep sprayer pressure at optimized level, allowing even distribution when applying to concrete surface.

3) Spray apply Lythic Densifiers, holding spray tip 12-24 inches above surface and moving in a circular motion to achieve even distribution. Spray enough to form an even sheen and ensure complete saturation of surface. Avoid puddling.

4) Keep the surface wet for 10 to 15 minutes, applying additional Lythic Densifiers only as needed. Areas of higher porosity will require more Lythic Densifier or use XL Densifier.

5) Allow surface to dry completely before further operations commence.

011-b: Diamond Grinding / Polishing
As part of concrete polishing, Lythic Densifier is typically applied after the initial diamond cutting stages or surface stock removal is completed and prior to the higher levels of diamond polishing. In most instances, it is used after 80-grit to 400-grit steps. See coverage chart for application stages on page 1.

011-c: New (Green) Concrete
Lythic Densifier can be applied the same day, once the surface has hardened enough not to damage the concrete surface/finish. Alternatively, within 1 to 5 days after the concrete placement, when the peak of hydration and outgassing has slowed enough to allow sufficient penetration.

Application at this stage dramatically increases abrasion resistance, will help to prevent dusting and ASR, and will improve overall surface performance. Slab must be clean and free of all contaminants such as curing compounds, bond breakers, release oils, dust and debris, etc. Apply per instructions in Section 011-a. General Application Instructions steps 1-5. No flooding, neutralizing, or rinsing is necessary.

011-d: Application Guidelines Next Steps
Polishing or other treatments can begin when Lythic Densifiers have dried. Concrete intended to be left exposed or polished should be protected with Lythic Protector or Lythic SPD Protector, or other appropriate finish protection, as the final step of treatment. Polished concrete should be cleaned with Lythic Cleaner or other pH neutral cleaners. Avoid acidic cleaners and detergents containing hydroxides, critic, or sulfates as these may etch or dull the surface.

012: Limitations & Important Notes
- Lythic Densifiers densify and harden concrete surfaces, but should not be confused with concrete sealers; they will not seal or prevent staining.

- Floors treated with Lythic Densifiers should not be cleaned with acidic or abrasive cleaning fluids. Medium to long-term exposure to aggressive cleaning products will cause damage. Lythic Cleaner or other pH-neutral cleansers should used for continuous maintenance of concrete that has been treated with Lythic Densifiers.

- During application of Lythic Densifiers and until dry, treated surface will be slippery. Use extreme care when walking on wet Lythic Densifiers.

- Jobsite samples are strongly recommended prior to application of all Solomon/Brickform and Lythic products.

013: Industry Compliance
- VOC Compliant
- National Floor Safety Institute
- LEED-Green Building Rating System
- GreenSpec listed
- OSHA & ADA non-slip requirements
014: Lythic System Products:
- Lythic DAY1 ............................................ (Troweling aid)
- Lythic Densifier ....................................... (Smaller particle densifier)
- Lythic Densifier XL .................................... (Larger particle densifier)
- Lythic Protector ....................................... (Color enhancer & protector)
- Lythic SPD Protector .................................. (Color enhancer & protection)
- Lythic Cleaner .......................................... (Colloidal silica cleaning agent)
- Pro-Dye .................................................. (Penetrating colorant concentrate)
- Stealth Seal ............................................. (Penetrating sealer)
- Solomon Colors ....................................... (Integral color for concrete)
- Brickform .............................................. (Sealers and processes for concrete)

HEALTH & SAFETY
015: Precautions
WARNING: FOR PROFESSIONAL USE ONLY. Before using product, read product SAFETY DATA SHEET (SDS) and instructions on packaging. ALKALINE CONCENTRATE: Contact can damage eyes, skin, and other body tissues. HANDLE WITH CARE. Eye and skin irritant. Digestive tract irritant; DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN. Spray mist is respiratory tract irritant. Use only with adequate ventilation. Do not breathe vapors or spray mist. Avoid contact with eyes, skin, clothing. Wear appropriate protection including eye protection and chemical-resistant gloves. Ensure fresh air-flow during application and until dry. If you experience headaches, dizziness, eye watering, or if air monitoring shows vapor/mist levels above applicable limits, wear a properly fitted P100/organic vapor respirator (NIOSH TC-84A approved), used according to manufacturer's directions, during application and drying. SLIP/FALL DANGER: During application of Lythic Densifiers and until dry, treated surface will be slippery. Use extreme care when walking on wet Lythic Densifiers.

016: First Aid
Ingestion: Not expected to be toxic. Never give an unconscious person anything to ingest. If swallowed, immediately give two glasses of water, seek medical attention if ill effects develop.

Inhalation: May cause irritation. Remove to fresh air and provide oxygen. If not breathing, give artificial respiration. Seek medical attention if irritation persists.

Eye Contact: Flush with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.

Skin Contact: May cause irritation. Wash affected area with soap and water. Remove contaminated clothing and shoes. Seek medical attention if irritation persists.

017: Physical Properties
Appearance ............................................. Clear or tinted liquid
VOC Content ............................................ 0 g/l (VOC-free)
Active Ingredients .................................... 100% of total solids
Material pH .............................................. apx 9.5-10
Freeze point ........................................... 32°F - 0°C

018: Warranty
Lythic Products is intended for use by licensed contractors and installers, experienced and trained in the use of these types of products. It is warranted to be of uniform quality, within manufacturing tolerances. The manufacturer has no control over the use of this product, therefore, no warranty, expressed or implied, is or can be made either as to the effects or results of such use. In any case, the manufacturer's obligations shall be limited to refunding the purchase price or replacing Lythic Products proven defective. The end user shall be responsible for determining product's suitability and assumes all risks and liability.

Additional Information & Technical Support:
This document covers the basic guidelines and instructions for the use of Lythic Products. Further instruction or technical information related to specifying Lythic Products or systems are available upon request. Contact Solomon Colors or your local distributor.
LYTHIC PROTECTOR improves on the effectiveness offered by traditional stain protectors by bonding additional silica to the concrete, further toughening it.

Lythic Protector enhances color and creates depth of shine. It cures for foot traffic within hours and improves traction of polished surfaces.

FEATURES & BENEFITS:
- Extends stain resistance
- Enhances color
- Provides durable traffic-wear resistance
- Improves traction
- Works well burnished or not
- Simplifies maintenance
- Concentrate formula
- Multiple applications over prolonged periods
001: Product Description
Lythic Protector is a colloidal silica-based, breathable concrete sealer that protects and enhances polished concrete floors. It is a unique product that improves surface hardness through colloidal silica reaction during application. It is specially formulated to reduce liquid penetration, enhance color, increase gloss reading and improve traction of polished concrete surfaces.

Lythic Protector is packaged under the red label concentrate formula and, in most cases, will be mixed 1:1 with clean potable water. In some cases when the concrete porosity is more severe, Lythic Protector can be used directly in the concentrate state without dilution.

*Note: Lythic Protector concentrate product will yield 2 times the volume when mixed 1:1 with clean potable water. Lythic Protector can be used as a ready-to-use formula for concrete surface with high porosity.

002: Features & Advantages
Lythic Protector is specifically designed to be applied to hard troweled concrete or polished concrete surfaces.

- Extends stain resistance
- Enhances color
- Provides durable traffic-wear resistance
- Improves traction
- Works well burnished or not
- Simplifies maintenance
- Concentrate formula
- Multiple applications over prolonged periods

003: Sustainability
Lythic Protector increases the performance and protection of a polished concrete surface, extending its service life and minimizing materials and energy consumption for its replacement.

- South Coast Air Quality Management District compliant
- Low VOC formula
- Ships as concentrate to lower environmental impacts
- Reduced shipping and storage costs
- No hazardous waste created
- Qualifies for LEED credits

004: Materials Packaging
Lythic Protector 1:1 (Red Lythic Logo)
- 1 gallon / 3.78 liter jug
- 5 gallon / 19 liter pail
- 55 gallon / 208 liter drum
- 270 gallon / 1021 liter tote (IBC)

005: Coverage Rates
Lythic Protector will yield different coverage results depending on the porosity of the floor. Test on a small sample area to determine appropriate application rate and technique before applying to entire project area.

*See Section 009: Project Testing*

Use these coverage rates as a starting point to determine necessary application rate.

<table>
<thead>
<tr>
<th>Lythic Protector</th>
<th>Coverage Rate (US, per gallon)</th>
<th>Coverage Rate (Metric, per liter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed 1:1</td>
<td>1200 - 1800 ft²</td>
<td>37 - 49 m²</td>
</tr>
<tr>
<td>Used As Concentrate</td>
<td>600 - 900 ft²</td>
<td>18.5 - 24.5 m²</td>
</tr>
</tbody>
</table>

006: Storage & Shelf Life
Lythic Protector should be kept in the original container when possible, with the lid fastened tightly.

Lythic Protector concentrate has an optimized shelf life of 24 months from the date of manufacture.

- Keep in a dry place
- Temp range of 40-100°F or 4-38°C
- Do not allow to freeze

MIXING & APPLICATION
007: Mixing & Dilution
Lythic Protector is designed to be mixed 1:1 with clean potable water. In some cases Lythic protector can be applied as a concentrate for surfaces that have a higher porosity.

Lythic Protector 1:1 Ratio
1) Before opening, agitate Lythic Protector concentrate.
2) Use clean potable water to mix with Lythic Protector.
3) Mix in a container or directly into sprayer.
4) Ratio: one part Lythic Protector to one part water.
5) Mix, agitate or stir well.

Lythic Protector Concentrate
1) Before opening, agitate Lythic Protector concentrate.
2) Pour Lythic Protector directly into sprayer.
008: Equipment
Apply Lythic Protector using a low-pressure pump sprayer. Use either a fan tip or a cone tip for even spraying. Automatic low pressure sprayers can also be used for larger projects. Micro-fiber or flat cotton pad applicators are recommended for material placement.

009: Project Testing
To assure that desired performance and appearance specifications are met, test a sample area of each slab to be treated, using the proposed treatment methods and techniques, coverage rates, and equipment, with the work performed by the same installation personnel who will do the project.

A test section should be large enough to properly represent the overall slab. Check whether coverage rate is appropriate, that concrete accepts the product, and that product is reacting with slab. NOTE: Grinding and polishing operations may significantly alter slip-resistance of surface. To determine that safe levels of wet and dry slip-resistance are achieved, it is necessary to apply the complete treatment. Lythic Densifiers, Lythic Protector or Lythic SPD Protector, which will increase slip resistance.

010: Pre-Application
Advanced planning is critical to all successful concrete work. Notations worth considering when using Lythic Products:

- Any adjacent areas, surfaces, or objects not intended to be treated with Lythic Protector should be protected from overspray or drift with plastic sheeting or other proven protective material.

- Surface must be clean and structurally sound, and must be clear of membrane forming curing compounds, oils, dust and other surface contaminants that will prevent Lythic Products from having full contact with the concrete. Do not use acidic or aggressive detergents when cleaning before or after application of Lythic Products. Use Lythic Cleaner or other pH neutral cleanser.

- Measure area (square feet: ft² / square meter: m²) that will require Lythic Products.

- Mix an appropriate quantity of Lythic Products for job-size, per instructions in Section 007: Mixing & Dilution, using estimated coverage rates in Section 005: Coverage Rates or the coverage chart on page 1.

- Check that sprayers and tips are in working order.

- Designate trained operator(s) to apply Lythic Products throughout project, to ensure consistent application.

011: Application Guidelines
Application may vary depending on the type of project and other jobsite specifics. The information provided is best practice guidelines for Lythic Protector. Every project will present variables that may require adjustment of application procedures during the job. These guidelines are based on terminology used within the concrete and flooring industry sector.

*(See coverage chart on page 1)*

- Agitate the premixed product before application.

- Pour Lythic Protector into the sprayer. Keep the sprayer at optimized levels, allowing even distribution when applying to the concrete surface.

- Dampen the micro-fiber or flat cotton pad with Lythic Protector before spreading material around.

- Spray-apply Lythic protector in circular motions with the sprayer tip approximately 18" (45 cm) away from the concrete surface.

- Use the micro-fiber or flat cotton pad applicator to spread the Lythic Protector in a thin film across the surface. Using a figure eight motion with the applicator helps to ensure even material distribution.

- Keep a wet edge between the sprayer and application pad at all times. Do not allow dry lines or puddling.

- Allow Lythic Protector to become tack-free before applying a second application or high speed burnishing.

- For each application follow the same steps.
011: Application Guidelines (Continued)
High speed burnishing using a diamond-impregnated or hogs-hair pad will enhance the gloss and clarity of the surface. Allow 12 hours before light foot traffic and 24 hours before heavy traffic. Do not allow standing water to remain on the surface for a minimum of 72 hours.

012: Limitations & Important Notes
- Lythic Protector is a breathable penetrating sealer that should be considered a sacrificial layer requiring periodic re-application when needed.
- Lythic Protector provides temporary protection from staining and etching agents, but it will not will not seal or prevent staining indefinitely. Spills must be removed in a timely manner to assure complete protection of the floor finish. For optimal stain and chemical resistance use Lythic SPD Protector.
- Floors treated with Lythic Protector should not be cleaned with acidic or abrasive cleaning fluids. Medium to long-term exposure to aggressive cleaning products will cause damage. Lythic Cleaner or other pH neutral cleansers should used for continuous maintenance of concrete that has been treated with Lythic Products.
- During application of Lythic Protector and until dry, treated surface will be slippery. Use extreme care when walking on wet Lythic Protector.
- Jobsite samples are strongly recommended prior to application of all Solomon/Brickform and Lythic products.

013: Industry Compliance
- VOC Compliant
- National Floor Safety Institute
- LEED-Green Building Rating System
- GreenSpec listed
- OSHA & ADA non-slip requirements

014: Lythic System Products:
- Lythic DAY1 .......................... (Troweling aid)
- Lythic Densifier .......................... (Smaller particle densifier)
- Lythic Densifier XL .......................... (Larger particle densifier)
- Lythic Protector .......................... (Color enhancer & protector)
- Lythic SPD Protector .......................... (Color enhancer & protection)
- Lythic Cleaner .......................... (Colloidal silica cleaning agent)
- Pro-Dye .......................... (Penetrating colorant concentrate)
- Stealth Seal .......................... (Penetrating sealer)
- Solomon Colors .......................... (Integral color for concrete)
- Brickform .......................... (Sealers and processes for concrete)

HEALTH & SAFETY
015: Precautions
WARNING: FOR PROFESSIONAL USE ONLY. Before using product, read product SAFETY DATA SHEET (SDS) and instructions on packaging. ALKALINE CONCENTRATE: Contact can damage eyes, skin, and other body tissues. HANDLE WITH CARE. Eye and skin irritant. Digestive tract irritant. DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN. Spray mist is respiratory tract irritant. Use only with adequate ventilation. Do not breathe vapors or spray mist. Avoid contact with eyes, skin, clothing. Observe appropriate safety and jobsite controls. Wear appropriate protection including eye protection and chemical-resistant gloves. Ensure fresh air-flow during application and until dry. If you experience headaches, dizziness, eye watering, or if air monitoring shows vapor/mist levels above applicable limits, wear a properly fitted P100/organic vapor respirator (NIOSH TC-84A approved), used according to manufacturer’s directions, during application and drying. SLIP/FALL DANGER: During application of Lythic Protector and until dry, treated surface will be slippery. Use extreme care when walking on wet Lythic Protector.

016: First Aid
Ingestion: Not expected to be toxic. Never give an unconscious person anything to ingest. If swallowed, immediately give two glasses of water, seek medical attention if ill effects develop.
**Inhalation:** May cause irritation. Remove to fresh air and provide oxygen. If not breathing, give artificial respiration. Seek medical attention if irritation persists.

**Eye Contact:** Flush with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.

**Skin Contact:** May cause irritation. Wash affected area with soap and water. Remove contaminated clothing and shoes. Seek medical attention if irritation persists.

017: **Physical Properties**
- **Appearance:** Milky white tinted liquid
- **VOC Content:** 25 g/l (Low- VOC)
- **Active Ingredients:** 100% of total solids
- **Material pH:** Apx 10-11
- **Freeze point:** 32°F - 0°C

018: **Warranty**
Lythic Products are intended for use by licensed contractors and installers, experienced and trained in the use of these types of products. It is warranted to be of uniform quality, within manufacturing tolerances. The manufacturer has no control over the use of this product, therefore, no warranty, expressed or implied, is or can be made either as to the effects or results of such use. In any case, the manufacturer’s obligations shall be limited to refunding the purchase price or replacing Lythic Products proven defective. The end user shall be responsible for determining product’s suitability and assumes all risks and liability.

**Additional Information & Technical Support:**
This document covers the basic guidelines and instructions for the use of Lythic Products. Further instruction or technical information related to specifying Lythic Products or systems are available upon request. Contact Solomon Colors or your local distributor.
**LYTHIC SPD PROTECTOR** utilizes new protection technology that achieves resistance to stains, acid etching, and liquid penetration similar to epoxy coatings, while remaining breathable. SPD (Silica-Polymer-Dispersion) is a two-part polymer combined with nanosized colloidal silica. SPD bonds in very thin coats directly to the concrete, enhancing color, and providing significantly greater protection and longer service life than conventional stain protectors, while retaining the appearance of polished concrete.

**FEATURES & BENEFITS:**
- High performance coating
- Advanced stain protection
- Elevated chemical resistance
- Durable traffic-wear resistance
- High traction rating from the National Floor Safety Institute
- Dries clear
- Will not yellow over time
- Bonds to highly polished concrete
- Simplifies future maintenance
001: Product Description
Lythic SPD Protector is a high performance coating designed specifically for the protection of polished concrete surfaces. Lythic SPD Protector utilizes new protection technology that achieves resistance to stains, acid etching, and liquid penetration similar to epoxy coatings while remaining breathable. SPD (Silica-Polymer-Dispersion) is a two-part polymer combined with nano-sized colloidal silica. Lythic SPD Protector bonds directly to the concrete, enhancing color, and providing significantly greater protection and longer service life than conventional stain protectors or guards. The nano-sized technology allow Lythic SPD Protector to produce a super thin film, retaining the appearance of polished concrete.

002: Features & Advantages
- High performance coating
- Advanced stain protection
- Elevated chemical resistance
- Durable traffic-wear resistance
- High traction rating (National Floor Safety Institute)
- Dries clear
- Enhances color
- Will not yellow over time
- Bonds to highly polished concrete
- Easy to burnish
- Improves gloss reading
- Simplifies future maintenance

003: Sustainability
Lythic SPD Protector increases the durability and performance of a concrete surface, extending its service life and minimizing materials and energy consumption for its replacement.
- South Coast Air Quality Management District compliant
- Low VOC formula
- Increased coverage rates
- No hazardous waste created
- Qualifies for LEED credits

004: Materials Packaging
Lythic SPD Protector is available in two size kits:
- 2 gallon / 7.6 It Kit (Part A&B Combined)
- 4 gallon / 15.2 It Kit (Part A&B Combined)

*Parts A&B must be fully mixed together before use.
See section 007 for mixing instructions

005: Coverage Rates
Lythic SPD Protector will yield different coverage results depending on the porosity of the floor. Test on a small sample area to determine appropriate application rate and technique before applying to entire project area.
*(See Section 009: Project Testing)

Use these coverage rates as a starting point to determine necessary application rate. Coverages are based on a mixed gallon of part A&B:
- 1000 to 1500 ft² per mixed gallon (24.5 to 36.8 m² / lt)
  * Example: 2 gallon kit will cover 2000 to 3000 ft²

006: Storage & Shelf Life
Lythic SPD Protector should be kept in the original container when possible, with the lid fastened tightly. Lythic SPD Protector has an optimized shelf life of 12 months from the date of manufacture.
- Keep in a dry place.
- Temp range of 40-100°F or 4-38°C.
- Do not allow to freeze.

MIXING & APPLICATION
007: Mixing
Lythic SPD Protector is a two-part kit. The two components must be completely mixed together. No dilution is necessary.

1) Before opening, agitation both part A&B.
2) Use a clean five gal pail for mixing part A&B.
3) Pour part A into the five gal pail.
4) Ensure all of part A is in the pail and stir slowly.
5) Pour part B into the five gal pail.
6) Slowly stir part B into part A in the five gal pail.
7) Ensure all of part B is in the five gal pail.
8) Use a paint mixer to scrape the side of the five gal pail.
9) Slowly mix for an additional 1 to 2 minutes

* Important: Mix using a low speed drill and mixing paddle or stir with a paint stirrer. Do not mix quickly or entraps air.
007: Mixing (Continued)
Lythic SPD Protector has a 45 to 60 minute pot-life and cannot be remixed. When the material begins to harden in the mixing pail, stop using it immediately. Calculate the quantity of material needed for the immediate working area, in most cases only one kit needs to be mixed then applied. Start mixing the next kit approximately 5 minutes before needed.

008: Equipment
- Paint stirrer
- 5 gal pails
- Low speed drill and mixing paddle
- Paint roller pan
- Short-nap lint-free or micro-fiber paint roller

*Note: High quality rollers normally produce best results

009: Project Testing
To assure that desired performance and appearance specifications are met, test a sample area of each slab to be treated using the proposed methods and techniques, coverage rates, and equipment, with the work performed by the same installation personnel who will do the project.

010: Pre-Application
Advanced planning is critical to all successful concrete work, notations worth considering when using Lythic SPD Protector.

- Any adjacent areas, surfaces, or objects not intended to be treated with Lythic Products should be protected with plastic sheeting or other proven protective material.
- Surface must be clean and structurally sound, clear of membrane forming curing compounds, oils, dust, and other surface contaminants that will prevent Lythic SPD Protector from having full contact with the concrete. Do not use acidic or aggressive detergents when cleaning before or after application of Lythic Products. Use Lythic Cleaner or other pH neutral cleanser.
- Measure area that will require Lythic Products.

- Only mix an appropriate quantity of Lythic SPD Protector for a manageable working area during the given pot-life. Per instructions in Section 007: Mixing. Using estimated coverage rates in Section 005: Coverage Rates.
- Designate trained operator(s) to apply Lythic SPD Protector throughout project to ensure consistent application.

011: Application Guidelines
Every project will present variables that may require adjustment of application procedures during the project. Lythic SPD Protector is intended for professional use by experienced contractors.

11-a: Application
1) Pour Lythic SPD Protector into roller pan/tray.
2) Evenly coat the roller with material.
3) Apply material evenly to the concrete surface.
4) Do not allow to puddle or leave a thick coating.
5) Roll the material slowly to reduce entrapped air.
6) Overlap roller mark to remove trace lines.

When applying Lythic SPD Protector, maintain a wet edge during application and work toward a pre-determined location to stop, usually a control joint or door threshold.

Make sure the minimum coverage rates of 1000 ft² per mix gallon is achieved.

11-b: Dry & Cure Times:
- Tack-free surface: 2 to 4 hours
- Light foot traffic: 4 to 6 hours
- High speed burnishing: 12 to 24 hours
- Fully cured in 72 hours

Air flow will speed up dry and cure times. Do not allow standing water to remain on the surface during the first 72 hours.
012: Limitations & Important Notes
- Lythic SPD Protector is intended for interior applications only.
- Lythic SPD Protector will need periodic inspection for potential wear traffic patterns.
- Although Lythic SPD Protector is a high performance coating, it is not recommended to leave any liquids or chemical spills for extended periods of time.
- Jobsite samples are strongly recommended prior to application of all Solomon/Brickform and Lythic products.

013: Industry Compliance
- VOC Compliant
- National Floor Safety Institute
- LEED-Green Building Rating System
- GreenSpec listed
- OSHA & ADA non-slip requirements

014: Lythic System Products:
- Lythic DAY1 ...........................................(Troweling aid)
- Lythic Densifier ......................................(Small particle densifier)
- Lythic Densifier XL .................................(Larger particle densifier)
- Lythic Protector .................................(Color enhancer & protector)
- Lythic SPD Protector .............................(Color enhancer & protection)
- Lythic Cleaner .................................(Colloidal silica cleaning agent)
- Pro-Dye ..................................(Penetrating colorant concentrate)
- Stealth Seal .................................(Penetrating sealer)
- Solomon Colors ...............................(Integral color for concrete)
- Brickform .................................(Sealers and processes for concrete)

Spray mist is respiratory tract irritant. Use only with adequate ventilation. Do not breathe vapors or spray mist. Avoid contact with eyes, skin, clothing. Observe appropriate safety and jobsite controls. Wear appropriate protection including eye protection and chemical-resistant gloves. Ensure fresh air flow during application and until dry. If you experience headaches, dizziness, eye irritation, or if air monitoring shows vapor/mist levels above applicable limits, use a properly fitted P100/organic vapor respirator (NIOSH TC-84A approved), used according to manufacturer’s directions, during application and drying. SLIP/FALL DANGER: During application of Lythic SPD Protector and until dry, treated surface will be slippery. Use extreme care when walking on wet Lythic SPD Protector.

016: First Aid
Ingestion: Not expected to be toxic. Never give an unconscious person anything to ingest. If swallowed, immediately give two glasses of water. Seek medical attention if ill effects develop.

Inhalation: May cause irritation. Remove to fresh air and provide oxygen. If not breathing, give artificial respiration. Seek medical attention if irritation persists.

Eye Contact: Flush with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.

Skin Contact: May cause irritation. Wash affected area with soap and water. Remove contaminated clothing and shoes. Seek medical attention if irritation persists.

017: Physical Properties
Appearance ........................................Milky white liquid
VOC Content .......................................<50 g/l (VOC-free)
Material pH .......................................apx 9.5-10
Freeze point ......................................32°F - 0°C

018: Warranty
Lytic Products are intended for use by licensed contractors and installers, experienced and trained in the use of these types of products. It is warranted to be of uniform quality, within manufacturing tolerances.
The manufacturer has no control over the use of this product, therefore, no warranty, expressed or implied, is or can be made either as to the effects or results of such use. In any case, the manufacturer’s obligations shall be limited to refunding the purchase price or replacing Lythic Products proven defective. The end user shall be responsible for determining product’s suitability and assumes all risks and liability.

Additional Information & Technical Support:
This document covers the basic guidelines and instructions for the use of Lythic Products. Further instruction or technical information related to specifying Lythic Products or systems are available upon request. Contact Solomon Colors or your local distributor:
Cleaning a concrete floor does more than simply maintain appearance and hygiene; it is vital to the continued performance of the finish. Dirt and grit must be removed so they don’t become abrasives that compromise the stain protection layer.

**LYTHIC CLEANER** goes beyond cleansing by adding silica to the surface as it cleans. Reactive colloidal silica bonds to concrete, so every cleaning improves resistance to abrasion and liquid penetration. It is chemically matched to Lythic's stain protection products for complete compatibility.

Sold as a concentrate, mild but effective, it is ideally suited for everyday use and is the best investment you can make in maintaining a concrete floor finish.

**FEATURES & BENEFITS:**
- Mild, safe, and non-corrosive
- Maintains and replenishes concrete protection
- Adds silica during cleaning
- Removes abrasive materials
- Simplifies maintenance
- Water-based, environmentally friendly
- Improves traction
- Concentrate formula
001: Product Description
Lythic Cleaner is an exciting product that hardens and enhances hard-troweled floors and polished concrete. Unlike traditional cleaners, Lythic Cleaner is produced with colloidal silica designed to bond to other Lythic Products used in advanced floor finishes.

Lythic Cleaner is an effective, non-corrosive cleaning agent for highly finished or polished concrete surfaces. Cleaning a concrete floor does more than simply maintaining appearance and hygiene; it is vital to the continued performance of the finish. Dirt and grit must be removed so they do not become abrasives that compromise the stain protection layer.

Lythic Cleaner goes beyond cleansing by adding silica to the surface as it cleans. Reactive colloidal silica bonds to concrete, so every cleaning improves resistance to abrasion and liquid penetration. It is chemically matched to the Lythic stain protection products for complete compatibility. Sold as a concentrate, it is ideally suited for everyday use and is the best investment you can make in maintaining a concrete floor finish.

002: Features & Advantages
- Mild, safe and non-corrosive
- Maintains and replenishes concrete protection
- Adds silica during cleaning
- Removes abrasive materials
- Simplifies maintenance
- Water-based, environmentally friendly
- Improves traction
- Concentrate formula

003: Sustainability
Lythic Cleaner increase the performance and protection of a polished concrete surface, extending its service life and minimizing materials and energy consumption for its replacement.
- South Coast Air Quality Management District compliant
- Low-VOC formula
- Ships as concentrate to lower environmental impacts
- Reduced shipping and storage costs
- No hazardous waste created
- Qualifies for LEED credits

004: Materials Packaging
Lythic Cleaner Concentrate 32:1
- 1 gallon / 3.78 liter jug
- 5 gallon / 19 liter pail
- 55 gallon / 208 liter drum
- 270 gallon / 1021 liter tote (IBC)

*Note: the concentrated product will yield 33 times the volume when mixed 32:1 with clean potable water.

005: Coverage Rates
Lythic Cleaner will yield different coverage results depending on the application method. Hand mopping will yield higher usage than using an auto-scrubber. Test on a small sample area to determine appropriate application rate and technique before applying to entire project area.
*See Section 009: Project Testing
- Auto-scrubber: Refer to equipment manual
- Hand mopping: 1 RTU gal = 250-450 ft²

006: Storage & Shelf Life
Lythic Cleaner should be kept in the original container when possible, with the lid fastened tightly.
Lythic Cleaner concentrate has an optimized shelf life of 36 months from the date of manufacture.
- Keep in a dry place
- Temp range of 40-100°F or 4-38°C
- Do Not Allow to Freeze

MIXING & APPLICATION
007: Coverage Rates
Lythic Cleaner is a concentrated product that needs to be diluted with clean water.
- Mix 32:1 for regular cleaning by hand-mop or auto-scrubber (1 gal Lythic Cleaner to 32 gal water) 4 oz per gal of water.
- Mix 16:1 for heavily soiled areas (1 gal Lythic Cleaner to 16 gal water) 8 oz per gallon of water.

008: Equipment
Apply Lythic Cleaner using an auto-scrubber or hand mop with two buckets (one for application and the other for rinse water).
009: Project Testing
To assure that desired performance and appearance specifications are met, test a sample area of each slab to be treated using the proposed treatment methods and techniques, coverage rates, and equipment, with the work performed by the same installation personnel who will do the project.

Test section should be large enough to properly represent the overall slab. Check whether coverage rate is appropriate, that concrete accepts the product, and that product is reacting with slab.

010: Pre-Application
Advanced planning is critical to all successful concrete work, notations worth considering when using Lythic Products.

- Measure area (square feet: ft² / square meter: m²) that will require Lythic Products.

- Mix an appropriate quantity of Lythic Products for job-size, per instructions in Section 007: Mixing & Dilution, using estimated coverage rates in Section 005: Coverage Rates or the coverage chart on page 1.

- Check auto-scrubber is in optimal working condition.

- Designate trained operator(s) to apply Lythic Products throughout project to ensure consistent application.

011: Application Guidelines
Lythic Cleaner can be applied to via auto-scrubber or hand mopping.

011-a: Auto-scrubber
- Dilute Lythic Cleaner per required ratio 32:1 or 16:1
- Refer to auto-scrubber manual for operational instructions.
- Heavy solid areas increase dwell time, or spot clean.
- Allow to dry. No floor-rinsing is required.

011-b: Hand Mopping
Mop applications require a separate rinse-water bucket to clean and wring mops as it applies Lythic Cleaner.
- Dilute Lythic Cleaner per required ratio 32:1 or 16:1.
- Apply one mop-load of mixed Lythic Cleaner evenly over the floor.
- Rinse mop in clean water and wring out before re-loading with more Lythic Cleaner.
- Replace clean water frequently to maintain effectiveness of cleaning.
- Allow to dry. No floor-rinsing is required.

011-c: Spot Cleaning
Lythic Cleaner is effective for spot cleaning small areas of oils and grease stains. Use full strength, undiluted Lythic Cleaner.
- Apply undiluted Lythic Cleaner to the stained area.
- Allow to dwell for 15 minutes.
- Then agitate area to remove stain.
- Repeat as necessary.
- Rinse area with clean water before cleaning overall area as normal.

012: Limitations & Important Notes
- Lythic Cleaner will not remove adhesives, mastic or other surface sealants.
- Jobsite samples are strongly recommended prior to application of all Solomon/Brickform and Lythic Products.

013: Industry Compliance
- VOC Compliant
- National Floor Safety Institute
- LEED-Green Building Rating System
- GreenSpec listed
- OSHA & ADA non-slip requirements
014: Lythic System Products:
- Lythic DAY1 ......................................................(Troweling aid)
- Lythic Densifier ...........................................(Small particle densifier)
- Lythic Densifier XL ...........................................(Larger particle densifier)
- Lythic Protector ............................................(Color enhancer & protector)
- Lythic SPD Protector ......................................(Color enhancer & protection)
- Lythic Cleaner ..............................................(Colloidal silica cleaning agent)
- Pro-Dye ..........................................................(Penetrating colorant concentrate)
- Stealth Seal ....................................................(Penetrating sealer)
- Solomon Colors ..............................................(Integral color for concrete)
- Brickform .....................................................(Sealers and processes for concrete)

HEALTH & SAFETY
015: Precautions
WARNING: FOR PROFESSIONAL USE ONLY. Before using product, read product SAFETY DATA SHEET (SDS) and instructions on packaging. ALKALINE CONCENTRATE: Contact can damage eyes, skin, and other body tissues. HANDLE WITH CARE. Eye and skin irritant. Digestive tract irritant; DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN. Spray mist is respiratory tract irritant. Use only with adequate ventilation. Do not breathe vapors or spray mist. Avoid contact with eyes, skin, clothing. Observe appropriate safety and jobsite controls. Wear appropriate protection including eye protection and chemical-resistant gloves. Ensure fresh air-flow during application and until dry. If you experience headaches, dizziness, eye watering, or if air monitoring shows vapor/mist levels above applicable limits, wear a properly fitted P100/organic vapor respirator (NIOSH TC-84A approved), used according to manufacturer’s directions, during application and drying. SLIP/FALL DANGER: During application of Lythic Products and until dry, treated surface will be slippery. Use extreme care when walking on wet Lythic Products.

016: First Aid
Ingestion: Not expected to be toxic. Never give an unconscious person anything to ingest. If swallowed, immediately give two glasses of water, seek medical attention if ill effects develop.

Inhalation: May cause irritation. Remove to fresh air and provide oxygen. If not breathing, give artificial respiration. Seek medical attention if irritation persists.

Eye Contact: Flush with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.

Skin Contact: May cause irritation. Wash affected area with soap and water. Remove contaminated clothing and shoes. Seek medical attention if irritation persists.

017: Physical Properties
Appearance ..................................................Red tinted liquid
VOC Content ......................................................<10 g/l
Active Ingredients .........................................100% of total solids
Material pH ....................................................apx 10
Freeze point ...................................................32°F - 0°C

018: Warranty
Lythic Products are intended for use by licensed contractors and installers, experienced and trained in the use of these types of products. It is warranted to be of uniform quality, within manufacturing tolerances. The manufacturer has no control over the use of this product, therefore, no warranty, expressed or implied, is or can be made either as to the effects or results of such use. In any case, the manufacturer’s obligations shall be limited to refunding the purchase price or replacing Lythic Products proven defective. The end user shall be responsible for determining product’s suitability and assumes all risks and liability.

Additional Information & Technical Support:
This document covers the basic guidelines and instructions for the use of Lythic Products. Further instruction or technical information related to specifying Lythic Products or systems are available upon request. Contact Solomon Colors or your local distributor:
DAY1 FINISHING AID is a colloidal silica-based topical additive that makes concrete flatwork finishing easier and faster. It produces a better result and reduces the risk of a prematurely setting slab. Applied during floating and troweling, DAY1 increases cream, making for easier, better finishing and extended workable time under adverse conditions. DAY1 does not alter the water to cement ratio. It provides moisture-retention performance similar to a liquid membrane forming curing compound. DAY1, however, becomes a permanent part of the slab so there is no membrane or residue to remove.

DAY1 also has a number of densification and performance enhancing qualities. Through densification, compressive and surface abrasion resistance are improved. Additionally, DAY1 improves consolidation, reduces water vapor transmission, and extends curing, further improving strength and durability. DAY1 has been shown to successfully mitigate slab curling by reducing evaporation at the surface, thereby diminishing the shrinkage differential and the curling it causes. DAY1 also minimizes the potential for checking, crazing, and other drying-related surface issues.

DAY1 reduces the potential for efflorescence on both colored and non-colored concrete mixes. It also gives the concrete surface hydrophobic-like properties for better resistance to liquid penetration and staining. This makes it a must-have for any colored or decorative concrete project.

Day1 offers a multitude of advanced features and benefits for freshly-placed concrete, and provides long-term high performance properties to treated concrete surfaces:

FINISHING AID
- Designed to improve workability under hot, dry, & windy conditions & will save a slab
- Reduces operator fatigue and trowel wear
- Aids application of shake-on hardeners in low bleedwater environments
- Helps finish high performance concretes
- Concentrate and ready-to-use formulas

HARDENING & DENSIFICATION
- Increases abrasion & impact resistance
- Increases surface compressive strength
- Creates a denser, less-permeable surface for resistance to liquid penetration

CONCRETE CURING
- Retains moisture in the slab during curing
- Reduces water vapor transmission (MVER)
- Mitigates volume of water vapors

EFFLORESCENCE & SURFACE DEFECT
- Colloidal silica chemical reaction reduces CO2 migration
- Reduces efflorescence on both colored & non-colored concrete
- Minimizes checking, crazing & scaling
- Decreases potential for alkali silica reaction (ASR)
- Ideal for all colored and decorative concrete applications

CURLING REDUCTION
- Reduces potential for slab curling
001: Product Description
DAY1 is a colloidal silica finishing aid that lubricates the surface for faster, easier finishing. DAY1 extends workable time under adverse conditions such as high wind, heat, or low humidity. DAY1 eliminates the need to add water to the surface which can be detrimental to the surface performance of the slab. It can also be used to help finish shake-on hardeners in low bleedwater environments. Concrete with high cement, air, silica fume, or silica flour are easier to finish when DAY1 is applied.

Colloidal silica is at the heart of DAY1 technology. The amorphous silica reacts during the hydration of concrete to produce more cementitious material, translating into higher density and improved surface performance.

DAY1, applied during finishing, provides a number long-term benefits to cured concrete. DAY1 reduces surface evaporation, mitigating and reducing ASR, slab curling, and differential shrinkage. DAY1 also has densification properties to prevent dusting and reduces efflorescence in colored and standard concrete.

002: Features & Advantages
- Lubricates for more efficient surface finishing
- Reduces operator fatigue and trowel wear
- Extends workability under hot, dry, and windy conditions
- Aids application of shake-on hardeners
- Reduces efflorescence with colored & standard concrete
- Minimizes checking, crazing & scaling
- Hardens and densifies
- Increases impact and abrasion resistance
- Creates a less permeable surface
- Increases surface compressive strength by 20%-30%
- Reduces water vapor transmission *(MVER)
- Colloidal silica chemical reaction reduces CO2 migration
- Decreases potential for alkali silica reaction - *(ASR)
- Reduces potential for slab curling
- Concentrate and Ready-to-Use Formulas
- Will not increase the W/C ratio
- Does not affect or change color

003: Sustainability
DAY1 increases the durability and performance of a concrete surface, extending its service life and minimizes material and energy consumption for its replacement.
- South Coast Air Quality Management District compliant
- Zero-VOC formula
- Ships as concentrate to lower environmental impact
- Reduces shipping and storage costs
- No hazardous waste created
- Qualifies for LEED credits

004: Materials Packaging

<table>
<thead>
<tr>
<th>DAY1 Concentrate 4:1</th>
<th>(Gold DAY1 Logo)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 1 gallon / 3.78 liter jug</td>
<td></td>
</tr>
<tr>
<td>- 5 gallon / 19 liter pail</td>
<td></td>
</tr>
<tr>
<td>- 55 gallon / 208 liter drum</td>
<td></td>
</tr>
<tr>
<td>- 270 gallon / 1021 liter tote (IBC)</td>
<td></td>
</tr>
</tbody>
</table>

*Note the concentrated product will yield 5 times the volume when mixed 4:1 with clean potable water.

<table>
<thead>
<tr>
<th>DAY1 Ready-to-Use</th>
<th>(Green DAY1 Logo)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 1 gallon / 3.78 liter jug</td>
<td></td>
</tr>
<tr>
<td>- 5 gallon / 19 liter pail</td>
<td></td>
</tr>
<tr>
<td>- 55 gallon / 208 liter drum</td>
<td></td>
</tr>
<tr>
<td>- 270 gallon / 1021 liter tote (IBC)</td>
<td></td>
</tr>
</tbody>
</table>

005: Coverage Rates
DAY1 will yield different results based on the jobsite conditions and usage demands. Before floating or troweling, test DAY1 on a sample section to determine appropriate application rate and technique before applying to entire project area.

*(See Section 009: Project Testing)*

Use these coverage rates as a starting point to determine necessary application rate. Coverages are based on a mixed ready-to-use (RTU) gallon of DAY1. DAY1 can be applied at multiple stages during finishing.

<table>
<thead>
<tr>
<th>Application Needs</th>
<th>Coverage Rate (US, per gallon)</th>
<th>Coverage Rate (Metric, per liter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finishing Aid</td>
<td>500 - 1000 ft²</td>
<td>12 - 24 m²</td>
</tr>
<tr>
<td>Performance Concrete</td>
<td>250 - 500 ft²</td>
<td>6 - 12 m²</td>
</tr>
</tbody>
</table>
006: Storage & Shelf Life
DAY1 should be kept in the original container when possible with the lid fastened tightly. DAY1 has an optimized shelf life of 24 months from the date of manufacture.
- Keep in a dry place.
- Temp range of 40-100°F or 4-38°C.
- Do not allow to freeze.

MIXING & APPLICATION
007: Mixing & Dilution
DAY1 is available in two concentrations. Consult the package label to ensure correct mixing and usage.

Day1 (Gold DAY1 Logo) is shipped and packaged in concentrate formula. Before use, it must be diluted with clean potable water, 4:1:
1) Before opening, agitate DAY1 concentrate.
2) Use clean potable water to mix with DAY1.
3) Mix in container or directly into sprayer.
4) Ratio: one part DAY1 to four parts water.
5) Mix, agitate or stir well.
6) Pour DAY1 directly into sprayer.

Day1 (Green DAY1 Logo) is shipped and packaged in Ready-to-Use formula requiring no mixing.
1) Before opening, agitate DAY1 Ready-to-Use.
2) Pour DAY1 RTU directly into sprayer.

008: Equipment
Apply DAY1 using a low-pressure pump sprayer. Use either a fan tip or a cone tip for even spraying. Automatic low pressure sprayers can also be used for larger projects. DAY1 can also be applied through the water tanks of a ride-on trowel.

009: Project Testing
Every batch of concrete is unique and its behavior varies depending on surrounding conditions. Testing is only relevant on the actual batch being finished. At the beginning of floating, and again at the beginning of troweling, test DAY1 on a small sample section to verify needed application rate and technique.

010: Pre-Application
Advanced planning is critical to all successful concrete work. Notations worth considering when using DAY1:
- Mix enough DAY1 concentrate into RTU for the project.
- Check spraying equipment is in working order.
- Protect spraying equipment in working order.

011: Application Guidelines
DAY1 is designed to be used during the floating and troweling stages of concrete placement. Multiple applications can be applied as needed throughout the finishing process. There are two uses for DAY1. The first is as a finishing aid to help concrete placement crews deliver a smooth, flat finish. The second is to increase the overall performance of the concrete surface.

001-a: Finishing Aid
DAY1 should be applied when needed to help finish concrete. Applied at an average rate of 500 to 1000 ft²/gal per application and worked in to the concrete by floating or finishing either by hand or mechanical trowels.

Multiple applications can be used throughout the finishing process. Do not exceed 250 ft²/gal per application. Typically, 1, 2, or 3 applications worked into the concrete will provide high levels of finishing.

011-b: Performance Concrete
The term performance concrete refers to the chemical enhancements of the surface. Although the finishing applications will add to some of the overall performance, it is important to apply DAY1 early to maximize the chemical interaction.

Applying DAY1 at the first bull float or mechanical trowel stage at a rate of 250 ft²/gal ensures the colloidal silica is worked deeply into the cement matrix. Then use DAY1 when, or as needed to help finish the slab. See section 011a: Finishing Aid.
011-c: General Application
1) Dilute DAY1 according to instructions in Section 007: Mixing & Dilution before use.

2) Pour DAY1 RTU mixture into sprayer. Keep the sprayer at optimized levels, allowing even distribution when applying to concrete surface. Or pour into the water tanks on the ride-on trowel.

3) Spray apply to concrete surface during floating or troweling at the predetermined application rates.

4) Float or trowel surface. DAY1 must be worked into the surface of the concrete immediately after application. Full benefit will not be realized if DAY1 is allowed to dry prior to being worked into surface. Finisher should determine when additional DAY1 is needed to improve workability.

It is recommended to apply DAY1 throughout the entire project for most consistent results. DAY1 can be applied both before and after the application of dry-shake hardeners/color hardeners, and may be especially useful when there is a limited amount of bleed water to wet-out the powdered hardeners.

012: Limitations & Important Notes
- DAY1 reduces porosity of the concrete surface, but should not be confused with concrete sealers; it will not seal or prevent staining.

- DAY1 must be floated or troweled into the concrete immediately after application and not allowed to puddle or pond on the surface.

- DAY1 reduces moisture vapor emissions and will aid curing. DAY1 is not a membrane-forming curing compound. DAY1 is not a replacement for specified curing compounds.

- Do not exceed 200 ft²/gal in a single application. Make sure to thoroughly work in each application of DAY1 before additional DAY1 is applied.

- Jobsite samples are strongly recommended prior to application of all Solomon/Brickform and Lythic Products.

013: Industry Compliance
- VOC Compliant
- LEED-Green Building Rating System
- GreenSpec listed

014: Lythic System Products:
- DAY1 ...........................................(Troweling aid)
- Lythic Densifier ...................... (Smaller particle densifier)
- Lythic Densifier XL ............ (Larger particle densifier)
- Lythic Protector ..................... (Color enhancer & protector)
- Lythic SPD Protector .......(Color enhancer & protection)
- Lythic Cleaner ....................... (Colloidal silica cleaning agent)
- Pro-Dye .................. (Penetrating colorant concentrate)
- Stealth Seal .............................. (Penetrating sealer)
- Solomon Colors................... (Integral color for concrete)
- Brickform ................ (Sealers and processes for concrete)

HEALTH & SAFETY
015: Precautions
WARNING: FOR PROFESSIONAL USE ONLY. Before using product, read product SAFETY DATA SHEET (SDS) and instructions on packaging. ALKALINE CONCENTRATE: Contact can damage eyes, skin, and other body tissues. HANDLE WITH CARE. Eye and skin irritant. Digestive tract irritant; DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN. Spray mist is a respiratory tract irritant. Use only with adequate ventilation. Do not breathe vapors or spray mist. Avoid contact with eyes, skin, clothing. Observe appropriate safety and jobsite controls. Wear appropriate protection including eye protection and chemical-resistant gloves. Ensure fresh air-flow during application and until dry. If you experience headaches, dizziness, eye watering, or if air monitoring shows vapor/mist levels above applicable limits, wear a properly fitted P100/organic vapor respirator (NIOSH TC-84A approved), used according to manufacturer’s directions, during application and drying. SLIP/FALL DANGER: During application of DAY1 and until dry, treated surface will be slippery. Use extreme care when walking on wet DAY1.
Inhalation: May cause irritation. Remove to fresh air and provide oxygen. If not breathing, give artificial respiration. Seek medical attention if irritation persists.

Eye Contact: Flush with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.

Skin Contact: May cause irritation. Wash affected area with soap and water. Remove contaminated clothing and shoes. Seek medical attention if irritation persists.

017: Physical Properties
Appearance ........................................ Milky white tinted liquid
VOC content ..................................... <0 g/l (Low VOC)
Active ingredients ......................................100% of total solids
Material pH ........................................... apx 9-9.5
Freeze point ......................................... 32°F - 0°C

018: Warranty
Solomon Colors / Lythic products are intended for use by licensed contractors and installers, experienced and trained in the use of these types of products. It is warranted to be of uniform quality, within manufacturing tolerances. The manufacturer has no control over the use of this product, therefore, no warranty, expressed or implied, is or can be made either as to the effects or results of such use. In any case, the manufacturer’s obligations shall be limited to refunding the purchase price or replacing Lythic products proven defective. The end user shall be responsible for determining product’s suitability and assumes all risks and liability.

Additional Information & Technical Support:
This document covers the basic guidelines and instructions for the use of Lythic products. Further instruction or technical information related to specifying Lythic products or systems are available upon request. Contact Solomon Colors or your local distributor.