StoColor® Lotusan®
Low VOC
The exterior coating with Lotus-Effect® technology
80217 StoColor Lotusan – Low VOC

### Technical Data

<table>
<thead>
<tr>
<th>REPORT</th>
<th>TEST METHOD</th>
<th>TEST CRITERIA</th>
<th>TEST RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salt Spray</td>
<td>ASTM B117</td>
<td>300 hours</td>
<td>No deleterious effects at 1000 hours</td>
</tr>
<tr>
<td>Accelerated Weathering</td>
<td>ASTM G154</td>
<td>2,000 hours</td>
<td>No deleterious effects at 5000 hours</td>
</tr>
<tr>
<td>Freeze/Thaw Resistance</td>
<td>ASTM E2485</td>
<td>60 cycles</td>
<td>No deleterious effects at 90 cycles</td>
</tr>
<tr>
<td>Resistance to Wind Driven Rain</td>
<td>ASTM D6904</td>
<td>No water penetration, Report weight gain</td>
<td>No water leaks applied in 2 coats, 0.08 lbs gain</td>
</tr>
<tr>
<td>Mold Resistance</td>
<td>ASTM D3273</td>
<td>28-day exposure</td>
<td>No mold growth at 90 days</td>
</tr>
<tr>
<td>Adhesion to Concrete psi (MPa)</td>
<td>ASTM D7234</td>
<td>&gt; 50 (0.344)</td>
<td>265 (1.83)</td>
</tr>
<tr>
<td>Surface Burning</td>
<td>ASTM E84</td>
<td>Flame Spread: &lt; 25 Smoke Developed: &lt; 450</td>
<td>FS: 0 FD: 0</td>
</tr>
<tr>
<td>Water Vapor Permeability</td>
<td>ASTM E96</td>
<td>1 coat</td>
<td>40 (2280)</td>
</tr>
<tr>
<td>Permeability 1 Perms (ng/Pa-s-m²)</td>
<td>Wet-cup method</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent Solids, by volume</td>
<td>Calculation</td>
<td>N/A</td>
<td>47%</td>
</tr>
<tr>
<td>VOC (g/L)</td>
<td>This product complies with US EPA (40 CFR 59) and South Coast AQMD (Rule 1113) VOC emission standards for architectural coatings. VOC less than 50 g/L.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Typical values for material cured at 73°F (23°C) and 50% R.H. Results are based on lab testing under controlled conditions. Results can vary between labs or from field tests.

### Features

| 1 Super-hydrophobic | • Extremely water repellent  
|                     | • Outstanding resistance to soiling  
|                     | • Improved resistance to mold, mildew and algae |
| 2 Vapor permeable   | Allows substrate to breathe naturally; resists blasts caused by trapped vapor |
| 3 UV Resistant      | Excellent color retention |
| 4 Water-based       | Safe, non-toxic; cleans up with water |
| 5 Low VOC           | Safe for workers and the environment |

### Surface Preparation

All surfaces must be structurally sound, clean, dry, and free of frost and surface contamination such as dust, dirt, salts, grease, oils, efflorescence, mold, algae, mildew, and any other contamination that may affect adhesion. Use appropriate repair methods for the substrate to repair pitting, spalls, cracks, peeling, blistering, delamination, weak surface conditions such as laitance, water damage, or other defects that may exist.

Pressure washing is a recommended means of surface preparation. Follow necessary safety precautions and adjust pressure to avoid damage to the underlying substrate or substrate condition. For mold, algae, and mildew removal, treat surfaces with a commercial mildew removal and/or wash product carefully following manufacturer's application and safety directions. Rinse thoroughly with clean water, and allow a minimum of 24 hours to dry thoroughly.

### Mixing

Mix with a clean, rust-free electric drill and paddle. For spray applications up to 5% dilution with water (40 ounces [1.2 L]) is permissible. The amount of water to add is proportional to the amount of colorant - darker colors use less water, lighter colors use more water. Add water in increments to increase flow and facilitate spraying. DO NOT EXCEED MAXIMUM ALLOWABLE WATER ADDITION.

StoColor Lotusan is a smooth, vertical, above grade exterior wall coating with Lotus-Effect® technology for concrete, stucco, masonry and EIFS. Lotus-Effect® technology mimics the self cleaning capabilities of the lotus leaf.

### Coverage

- **200-270 ft² per gallon (4.9-6.5 m² per liter) per coat, applied at 5-7 mils (0.13 to 0.18 mm), wet to achieve 2.4 – 3.3 mils DFT per coat.**
- **940-1270 ft² (85-115 m²) per pail for a single coat, applied at 5-7 mils (0.13 to 0.18 mm) per coat, wet to achieve 2.4 – 3.3 mils DFT per coat.**
- **470-635 ft² (44-58 m²) per pail for two coats, applied at 5-7 mils (0.13 to 0.18 mm) per coat, wet to achieve 2.4 – 3.3 mils DFT per coat.**

Coverage may vary depending on application technique and surface conditions.

### Packaging

5 gallon pail (19 L).

### Color

Available in virtually any color including custom color matches.

### Shelf Life

12 months, if properly stored and sealed.

### Storage

Protect from extreme heat [90°F (32°C)], freezing and direct sunlight.
## Application

Apply only to sound and clean, dry, properly prepared, frost-free surfaces. Do not apply over damp surfaces or during rain, hail, or snow events or if rain, hail, or snow is imminent. Apply StoColor Lotusan – Low VOC in two uniform coats by brush, roller or by proper spray equipment to prepared/primed substrate. Apply coating in a continuous application, always working from a wet edge or architectural break to eliminate cold joints. Back roll open texture surfaces such as concrete masonry. Achieve 2.4 – 3.3 DFT per coat. Allow sufficient time for drying between coats.

**IMPORTANT**

ALWAYS check color for proper match. If color does not match, STOP call your Sto representative. Minor shade variations may occur from batch-to-batch (refer to batch number on pail). Avoid installing separate batches side-by-side and avoid application in direct sunlight. Avoid installing new coating adjacent to weathered or aged coating. Sto Corp. will not be responsible for shade or color variation from batch-to-batch, variation caused by application or subrate deficiencies, or fading resulting from natural causes such as weather. See Tech Hotline Nos. 0894-C, 0898-E and 1202-C for helpful tips on prevention of color problems.

Prevent or repair leaks from roofs, parapets, windows, sealants, or other components of construction, and prevent accumulation of water inside the wall assembly during or after construction. Water accumulation behind the coating could cause damage to the coating or underlying construction.

Prepare a job site mock-up of the final coating assembly to verify aesthetics and adhesion to properly prepared/primed surfaces as specified by design professional or owner’s quality assurance agent.

## Limitations

- Protect installed materials from rain, freezing, and continuous high humidity until completely dry.
- Apply when ambient and surface temperatures are 40°F (4°C) and rising.
- Do not apply if the surface temperatures is less than 5°F (2.8°C) above the ambient dew point temperature.
- Do not apply in freezing conditions or during precipitation.
- Do not overcoat with solvent-based materials.
- Do not use below grade, on horizontal surfaces, or in areas of ponding water.
- Dark colors and colors requiring organic pigments may not be available.
- Custom color samples will not show hydrophobic properties until weathered.
- For directions on cleaning and general maintenance of StoColor Lotusan refer to the Tech Hotlines available on www.stocorp.com

## Substrates and Recommended Primers:

<table>
<thead>
<tr>
<th>Substrate</th>
<th>Min. Age</th>
<th>Primer</th>
<th>WFT (DFT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete</td>
<td>28d</td>
<td>StoPrime Hot</td>
<td>5 (2.1)</td>
</tr>
<tr>
<td>Stucco</td>
<td>7d</td>
<td>StoPrime Hot</td>
<td>5 (2.1)</td>
</tr>
<tr>
<td>CMU</td>
<td>28d</td>
<td>StoPrime</td>
<td>6-8 (2.7-3.7)</td>
</tr>
<tr>
<td>EIFS</td>
<td>N/A</td>
<td>StoPrime Sand</td>
<td>4-6 (1.8-2.7)</td>
</tr>
<tr>
<td>Painted</td>
<td>N/A</td>
<td>Depends on paint &amp; its condition.</td>
<td>Test to determine best primer</td>
</tr>
</tbody>
</table>

Note: StoPrime Conditioner is recommended as a surface conditioner and supplemental component for chalking substrate conditions. Selection of primer may vary depending on actual substrate conditions such as pH, absorption, texture, and desired aesthetic look.

## Spray Application

When spray applying we recommend using a Graco 1095 or equivalent with a 19 to 21 mm tip size. Initial pressure should be 1900 to 2100 psi. Adjust pressure to optimize application for field conditions. See Mixing instructions for water additions.

## Curing/Drying

Dries within 24 hours under normal conditions [70°F (21°C), 50% RH]. Drying time varies with temperature/humidity and surface conditions.

## Lotus-Effect® Technology

The super hydrophobic properties of Lotus-Effect technology are not immediate and require up to 30 days of weathering after it is applied to develop. These properties develop with aging and environmental conditions. Some highly textured surfaces may have reduced hydrophobic properties.

## Clean Up

Clean tools and equipment with water immediately after use. Dried material can only be removed mechanically.

## Health And Safety

**WARNING!**

Causes eye and skin irritation. Prevent contact with eyes and skin. Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

**FIRST AID MEASURES**

Eye Contact: Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.

Skin Contact: Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists. Inhalaion: If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Store locked up.

**Spills**

Collect with suitable absorbent material such as cotton rags.

**Disposal**

Dispose of in accordance with local, state or federal regulations.

**Warning**

KEEP CONTAINER CLOSED WHEN NOT IN USE. KEEP OUT OF THE REACH OF CHILDREN. NOT FOR INTERNAL CONSUMPTION. FOR INDUSTRIAL USE ONLY. Consult the Material Safety Data Sheet for further health and safety information.

**Safety Data Sheet (SDS)** is available at www.stocorp.com

**LIMITED WARRANTY**

This product is subject to a written limited warranty which can be obtained free of charge from Sto Corp. Refer to Sto Specifications for more complete information on proper use and handling of this product.