PART 1 GENERAL

1.01 SECTION INCLUDED

A. Zycosil water repellents applied to exterior masonry surfaces

B. In most cases protection of adjacent surfaces is not required; however, if adjacent surfaces (such as glass) accidentally come in contact with diluted Zycosil, the surface can be cleaned with common surfactants.

1.02 RELATED SECTIONS

A. Section 07 90 05 - Joint Sealer

1.03 SUBMITTALS

A. See Section 01 30 00 – Administrative Requirements, for submittal procedures.

B. Product Data: Provide product description.

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Clear to pale yellow</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt;100°C, Non flammable</td>
</tr>
<tr>
<td>Spe. Gravity (25°C)</td>
<td>1.05</td>
</tr>
<tr>
<td>Solubility</td>
<td>Mixable with water, Soluble in methanol, ethanol and isopropanol</td>
</tr>
<tr>
<td>Protects</td>
<td>Concrete, Expose aggregates, Brick, Mortar, Plaster, Lime stone, Sandstone, Granite, Tile and Grout, Cement sheets</td>
</tr>
<tr>
<td>Protect Against</td>
<td>Staining, Efflorescence, Scaling, Spalling, Reinforcing Steel, Corrosion, Mildew, Fungus, Leaching, Deterioration, Salt burst, Premature aging</td>
</tr>
<tr>
<td>Equipment</td>
<td>Airless spray, Paint brush or roller</td>
</tr>
</tbody>
</table>

C. Manufacturer Installation Instructions: Indicate special procedures and conditions requiring special attention; cautionary procedures required special attention during application.
How Zycosil is Applied on Vertical Structures

Zycosil diluted solution can be easily applied in one coat using airless spray equipment such as a pump-up garden sprayer, or paint brush or roller. Because Zycosil diluted solution is deep penetrating, clear formula it provides long lasting water repellency.

How Zycosil is Applied on Horizontal Structures

The application of Zycosil diluted solution is well suited for all horizontal surfaces, particularly those subject to high abrasion and weathering. Easily and quickly applied, permanent protection is secured with one coat. All surfaces should be saturated or flooded for deep penetration to ensure maximum protection.

Zycosil General Application Guide

Diluted Zycosil solution should be used within 48 hours.

Zycosil can be used for new or old structures.

Zycosil is diluted with water. One liter of Zycosil is mixed with 10 liters of water for most horizontal surfaces. This solution is recommended for concrete, plaster or cements tiles, cement sheet, vertical exposed bricks, sandstone, limestone, and granite stone.

One liter Zycosil is mixed with 20 liters of water for most vertical surfaces. This solution is recommended for horizontal concrete, bricks, plaster, lime stone, sand stone, granite, sand faced plaster, stucco, and stone

<table>
<thead>
<tr>
<th>Surface</th>
<th>Coverage Rate Ft²</th>
<th>General Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete Horizontal</td>
<td>400</td>
<td>The surface must be clean, remove dust efflorescence, fungus, salt, grease, oil,</td>
</tr>
<tr>
<td>Concrete Vertical</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>Plaster</td>
<td>300</td>
<td>asphalt, curing compounds, paint, coating, and other foreign material.</td>
</tr>
<tr>
<td>Sand face plaster</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>Exposed Brick</td>
<td>200</td>
<td>Visible cracks should be repaired properly.</td>
</tr>
<tr>
<td>Lime stone</td>
<td>300</td>
<td>New concrete and plaster must be cured completely. Solvent or water based</td>
</tr>
<tr>
<td>Sand stone</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Cement tiles</td>
<td>300</td>
<td>acrylate paint should be applied after Zycosil application.</td>
</tr>
<tr>
<td>Cement sheet</td>
<td>400</td>
<td>Zycosil application. Cement based paints should be applied before Zycosil</td>
</tr>
</tbody>
</table>
1.04 MOCK-UP

A. Prepare a representative surface 36 X 36 inches in size using specified material and preparation and application methods on surfaces identical to those to be coated; approved mock-up constitutes standard for workmanship.

*Take 25g Zycosil and dilute with 250 ml of water. Mix well and apply on clean, dry surface. The amount of Zycosil required will depend on the porosity of the surface.*

B. For proposed substitutions, prepare side-by-side mock-ups of specified and substituted products.

*There is no substitute product that can be applied and provide some performance as Zycosil. The product that may be substituted is a flammable solvent based alkylalkoxysilane.*

C. Locate where directed.

D. Mockup may remain as part of work.

1.05 ENVIRONMENTAL REQUIREMENTS

A. Protect liquid product from freezing.

*Do not store concentrated Zycosil below 8 °C (45 degrees Fahrenheit). If product does freeze then allow it to thaw before diluting with water.*

B. Do not apply water repellent when the ambient temperature is lower than 40 °F or higher than 115 °F. Do not apply material to moisture saturated surfaces.

C. Do not apply water repellent when wind velocity is higher than 20 mph

1.06 STORAGE ON SITE

A. Protect materials from freezing in accordance with manufacturer’s instruction. If product freezes then allow it to thaw before diluting with water.

1.07 WARRANTEE

Zycosil application in any project must be carried out by a certified trained representative. The water repellent performance of the system should last as long as twenty (20) years from the date of application. Provision of any warranty includes the customer’s exclusive responsibility for a structurally sound substrate.
No liability to be assumed for defects in the substrate related to cracks or structural defects due to stress.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Water Repellent
   Zydex Industries, Zycosil Water repellent: Degussa Corporation; Protectosil BHN, BSM-40 VOC
   Dow Corning Z-6404

2.02 MATERIAL

A. Water Repellent: Zycosil Water repellent Colorless
   1. Solid content 40 % Minimum
   2. Moisture repellency rating: 98 % Minimum

PART 3 EXECUTIONS

3.01 EXAMINATION

A. Verify existing conditions before starting work

B. Verify joint sealants are installed properly and cured.

C. Verify surface to be coated is dry, clean and free of efflorescence, oil or other matter detrimental to application of water repellent.

3.02 PREPARATION

A. Prepare surface to be coated as recommended by water repellent manufacturer for best results.

B. Do not start work until substrate is cured properly.

C. Remove loose partials and foreign matter.

D. Remove oil and foreign substances with a chemical solvent that will not affect water repellent.

E. Scrub and rinse surfaces with water and let it dry.
3.03 APPLICATION

A. Apply water repellent in accordance with manufacturer’s instruction. Use procedures and application method recommended for best results.

3.04 PROTECTION OF ADJACENT WORK

A. Protect adjacent landscaping and property from drips and overspray.

B. Protect adjacent surfaces not intended to receive water repellent.

C. Remove water repellent from unintended surfaces (such as glass) immediately with surfactants (soap) and water.