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Mortar & Plaster  
For Historic Restoration  
and Green Building

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## **Ecologic™ LithoGlue**

### **Vapor Permeable Glue for Bonding Masonry Fragments**

#### **Product Description:**

Ecologic™ LithoGlue is an all-natural two-part gluing system used to glue fragments of brick and stone masonry together making it ideal for piecing together shattered fragments of gravestones, bricks, or architectural ornaments not under load. Based on calcium caseinate, Ecologic™ LithoGlue achieves moderate strength while maintaining vapor permeability and reversibility. When working with stones that are in otherwise sound condition around the repair area, Ecologic™ LithoGlue should allow the stone to break at the glue point if toppled again rather than creating a new fracture. Ecologic™ LithoGlue requires the purchase and use of Ecologic™ Waterglass as its liquid second-part for maximum efficacy. Ecologic™ LithoGlue is available in all stock colors of standard Saint-Astier® Lithomex upon request.

#### **Mixing:**

##### **Proportions:**

- Ecologic™ LithoGlue (Part 1)= 1 cup
- Ecologic™ Waterglass (Part 2) = 2-½ Tsp.
- Mixing water = ¼ cup

#### **Application:**

Surfaces must be clean, free from dust and oils. Pre-wet repair surfaces immediately before application and apply Ecologic™ LithoGlue while the masonry is still damp. Do not apply on fully saturated materials or where standing water remains on the surface. For applications on dense impervious substrates, scarification may be required; consult us when working with such materials.

Combine Ecologic™ LithoGlue, Ecologic™ Waterglass, and clean potable water together. Mix for

a minimum of 5 minutes and until all lumps are gone and glue forms an even consistency similar to peanut butter. Apply glue mixture to both substrates near the center of the break. A minimum of 3/16" of the glue mixture should be spread evenly over broken area allowing at least several millimeters of distance from the edge to allow for expansion when the pieces are pressed together. Scrape away or wipe off any excess material that oozes out of the fissure when pressed together immediately to avoid staining on adjacent surfaces. Tightly clamp and support pieces together for a minimum of 24 hours. Support where necessary with wires, anchors, stainless steel fixings, or forms.

Ecologic™ LithoGlue has a minimum application thickness of 3/16", meaning a small amount of space will be added to the thickness of the rejoined fragments. LithoGlue is available in every Saint-Astier® Lithomex stock color, but glue alone may not be enough to disguise a repair. Following gluing, any remaining fissure or void visible at the glue seam may be filled in using standard Saint-Astier® Lithomex in an appropriately matching stock or custom color. Lithomex repairs require a depth and width of at least 3/16". For voids smaller than 3/16" wide or deep, Ecologic™ Injection Grout may be used to fill the void. Once cured, the bright white grout may be blended in using an appropriately colored Ecologic™ Colorwash Stain silicate-based masonry stain.

LithoGlue requires exposure to air to fully set. Because of this, LithoGlue cannot be used to repair areas where the total thickness of the glued area exceeds 6" width or depth. For repairs that will be covered, such as those on a tombstone portion below ground, allow at least 10 days of curing before backfilling or covering the repair area.

### **Limitations:**

Ecologic™ LithoGlue is meant for porous absorbent materials and cannot be used to securely glue impermeable materials together. LithoGlue is designed to bond fragments of masonry that are not under load and should not be used to mend load-bearing masonry or for applications where a piece is suspended against gravity. LithoGlue is best used where regular treadwear and movement are not expected. LithoGlue is not a replacement for epoxy for installing and protecting pins, but may be used alongside pinning epoxies to help reinforce a fissure along which pins have been installed.

### **Material Properties (at 28 days):**

<b>Absorption Rate</b>	28.625 g/100cm <sup>2</sup>
<b>Elastic Modulus</b>	4.935*10 <sup>-4</sup> psi
<b>Compressive Strength</b>	1137 psi
<b>Total Porosity</b>	5.705%
<b>Water Vapor Transmission</b>	6.726 perms

### **Environmental Requirements:**

Materials must be stored and handled to protect them from damage and moisture in accordance with Manufacturer's instructions. It is recommended to take precautionary measures necessary to assure that excessive temperature changes do not occur. Do not apply Ecologic™ LithoGlue unless minimum ambient temperature of 45°F and a maximum of 85°F has been and continues to be maintained for a minimum of 48 hours prior to application and until Ecologic™ LithoGlue has cured. During hot weather protect from uneven and excessive evaporation. For interior applications, consider providing a humidifier to help maintain damp conditions conducive to good curing.

### **Safety:**

Wear adequate protective clothing to avoid prolonged contact with Ecologic™ LithoGlue . To avoid dust contact with eyes and possible inhalation wear glasses and the appropriate dusk mask especially in areas not properly ventilated.

### **Disposal:**

Sweep and place bulk material in containers and properly remove for disposal. The final, cured product is not hazardous. Dispose of in a landfill in accordance with all local, state and federal regulations.

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