

deGruchy's

LIME



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Makers of



Mortar & Plaster Brand  
For Historic Restoration  
and Green Building

Phone: 215-536-6706  
Fax: 215-453-1310

3145 State Road, Telford, PA 18969

www.LimeWorks.us

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## Ecologic™ Mortar Injection Grout Type (I), (II), (III), (IV), (V)

### Lime Grouts – Recommendations & Data

Ecologic™ Injection Grouts are specialty formulated grouts, based on St. Astier Natural Hydraulic Lime (NHL 5) and St. Astier Natural Hydraulic Lime (NHL 3.5) for Coulinex Type V Grout, and they contain NO Portland Cement. Casein is added in some mix designs as a natural, no VOC water reducer which controls shrinkage and increases flow.

### Preparation Procedures

Cracks and areas adjacent to the injections ports should be clean and dust free. Remove any loose or friable material, and flush the adjacent areas and cracks with clean water to control suction within the masonry and allow proper flow of grout.

### Mixing

Should be mechanically mixed. Using a drill mixer with a paddle attachment. Add 1.5 gallons of clean water to a full pail of material. Add more water as needed to increase to the desired fluidity.

### General Application

Use non-staining clay, caulk or Duct Seal to temporally dam the bottom of the crack being repaired. As Injection Grouts fill void space, allow to cure for a minimum of 24 hours before the removal of damming material. Avoid overflow and runs on the masonry when possible. Fill the void slow and steadily, using horse syringe (without the needle) for pure NHL grout with no aggregate, and use grout bag with any of the four grout types, until more materials can no longer be accepted. Repoint or patch the mortar joint or stone with appropriate compatible materials.

### 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 Injection Grouts unless minimum ambient temperature of 45°F and a maximum of 85°F continue to be maintained for a minimum of 48 hours prior to the application and until Injection Grout has cured. During hot weather Protect from uneven and excessive evaporation during the dry, hot weather.

### Grout Type Descriptions

#### Type I Grout

Is a mixture of St. Astier NHL 5 and casein (particle size: 40 - 60 microns) is recommended for use to fill very fine cracks up to a width 1/16 inch.

#### Type II Grout

Is a mixture of 1 part St. Astier NHL 5 to 1 part glass micro spheres by volume (particle size: 300 microns) is recommended for use for fine cracks or voids between 10 mils (0.010 inch) and 1/8 inch.

#### Type III Grout

Is a mixture of 1 part St. Astier NHL 5 and 1 part #100 or fine white silica sand by volume (particle size: 600 microns) to be used for cracks or voids between 1/8 inch and 1/4 inch.

#### Type IV Grout

Is a mixture of 1 part St. Astier NHL 5 to 1.5 part blended aggregates by volume (particle size: 800 microns) to be used for cracks or voids between 1/4 inch and 1/2 inch.

#### Type V Grout (COULINEX)

St. Astier has developed a product named COULINEX based on NHL 3.5 with no cement or pozzolanic addition. It can be used on its own or with addition of sand, depending on the voids size. The water addition is dictated by the amount of COULINEX used and the fluidity required. In fine injection work it can be applied on its own or with

very fine aggregate, depending on the voids size. Used in stone statuary and monuments.

Note: Ecologic™ Waterglass Primer and Consolidant for masonry can be used when hairline cracks and fissures are too small for any grout to be installed and it can be applied to the void, allowing it to seep in and strengthen the bond between fractured layers of masonry.

## **Technical Data**

### **Working Time**

1 – 2 hours once mixed with water. Any material that has been mixed with water and let to sit over 3 hours should be discarded.

### **Cure Time**

Injection Grouts should be protected from excessive wind, heat, cold, and water for a minimum of three days to promote ideal curing environment.

### **Shelf Life**

8 – 12 months if kept sealed and away from moisture.

### **Clean Up**

Clean any overflow or leaks on the substrate immediately with clean water. Flush the area and if needed use a heavy duty sponge and water to scrub contaminated areas.

### **Safety**

Wear adequate protective clothing to avoid prolonged contact with the grout. To avoid dust contact with eyes and possible inhalation wear glasses and 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.

*The above details are given for information purposes only. Final dosages, cost, and application should be checked with our technicians. The Factory reserves the right to alter specifications.*

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