



# Lime Pointing Mortar

## Product Data Sheet

### DESCRIPTION

BioLime Pointing Mortar is a pre-formulated, pre-blended lime-based pointing mortar used for masonry pointing in restoration and new construction projects.

### FEATURES

- Purely lime-based
- Superior cement alternative
- Mitigates salt efflorescence
- Unique colors
- Breathable
- Flexible
- Applies easily
- Zero VOC, non-toxic, SCAQMD compliant.

### COLORS

Available in a wide range of bespoke colors.

### PRODUCT PARTICLE SIZE

0.3 mm or 1.0 mm

### PACKAGING

45 LB

### COVERAGE

Approximately 30 sq.ft at 10 mm joint width.

### PURPOSE

BioLime Pointing Mortar is a highly versatile product that affords stone masonry to properly settle and adjust during expansion and contraction caused by weather related freeze-thaw cycles. Highly vapor transmissive with an ability to mitigate salt efflorescence caused by substrates with elevated salt concentrations. While suitable for tuck-pointing applications, it is also tailored for repair work on damp walls in historical buildings and basement areas.

BioLime Pointing Mortar meets and exceeds the German **WTA Guidelines & Testing Standards** and is made from premium quality limestone, pozzolans (pumice, volcanic ash, amorphous silica, highly reactive clay) and natural tree resins.

Due to its natural composition and elevated pH, it counteracts against the formation and proliferation of molds, mildew and bacteria.

### EXPERIENCED INSTALLERS

BioLime Pointing Mortar is intended to be applied by professional applicators who demonstrate experience and craftsmanship and meet the application requirements of BIOLIME product **endorsement**.

### APPLICABLE SUBSTRATES

- Brick masonry
- Stone masonry
- Rough-cast stone
- Quarried stone
- Concrete Masonry Unit (CMU)
- Existing mortar

Consult with BIOLIME for specific recommendations concerning non-traditional substrates.

### TECHNICAL INFORMATION

Consult our Technical Services Department for specific recommendations concerning all other applications.

Consult [www.biolime.com](http://www.biolime.com) for additional information about products and systems and for updated literature.

### HEALTH, SAFETY AND ENVIRONMENTAL

Read, understand and follow all Safety Data Sheets (SDS) and product label information for this product prior to use.

The SDS can be obtained by visiting [www.biolime.com](http://www.biolime.com). Use only as directed.

Lime is a naturally caustic (rapid absorption) material and because of its elevated pH, creates an alkaline reaction when combined with water. Protect the eyes and skin from exposure. Keep out of reach of children. Dust may cause irritation to eyes, skin, nose, throat and upper respiratory tract. Avoid irritation by reducing exposure to dust. Use in a well-ventilated area or provide sufficient local ventilation. Do not ingest. When mixing product wear a NIOSH/MSHA-approved dust respirator and always wear eye protection. If eye contact occurs, flush thoroughly with water for 15 minutes. If irritation persists, call a physician.

### DISCLAIMER

BIOLIME shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to replacement of defective goods.

# BioLime Pointing Mortar

## Application

### PREPARATION

Surfaces should be clear and clean of any inconsistent parts, dust, oils, mildew, organic matter, salt efflorescence or any other loose material which should hinder proper adhesion to the applied surface.

Highly absorbent substrates must be spray-misted and moistened (not saturated) with clean water using a tank sprayer prior to application to allow the product to properly bond to the substrate.

### MIXING

BioLime Pointing Mortar is a pre-blended product and requires only mixing with water on the job-site.

BioLime Pointing Mortar requires **6 quarts of water per 45 Lb bag**. (Use manufacturer's measuring bucket).

Mix the product with a heavy duty mortar mixing drill equipped with proper mixing paddle as shown.

BioLime recommends the use of a 2-speed drill with low torque capacity, such as a Milwaukee 1/2" Hole-Hawg® Drill 300/1200 RPM (as shown) and the BioLime 4.5" helical mixing paddle (as shown).

1. Fill the plaster manufacturer's measuring bucket with clean water to the referenced product margin line.
2. In a clean 6-gallon plastic bucket, pour half of the measured water.
3. While stirring the water at low RPM, add plaster from the bag at a rate to prevent clumping of the material. Continue adding water from the measuring bucket and dry plaster until bag is empty.
4. Once the dry powder is wetted, mix for additional 3 minutes maximum. Allow to rest 5 minutes to fully hydrate and then stir to relax the batch. Over-mixing plaster will cause loss of strength. Keep bucket covered to extend working time to about 1 hour.
5. Make sure to avoid mixing times exceeding 3 minutes as a significant drop in strength can occur.



Milwaukee 1/2" Hole-Hawg® Drill  
300/1200 RPM



BioLime® 4.5" Helical  
Mixing Paddle

### APPLICATION

Consult with BIOLIME for specific recommendations concerning non-traditional mortar applications.

Ensure surface is free of construction dust and debris or loose particulate.

Prewet masonry surfaces relative to their absorbency. Highly absorbent surfaces require more hydration. Once water has evaporated from surface, with substrate holding and retaining moisture, application may begin.

Apply mortar with even distribution to a maximum 3/4-inch layer thickness.

Trowel surface smooth and in plane, or as desired.

### CURING

For every 1/8" (3mm) of thickness, moist-cure for 2 (two) cycles by flooding entire surface with cool, clean water at 0 PSI (no pressure).

Example: a 1/2" mortar will require 8 (eight) cure cycles.

**CURE CYCLE:** A cure cycle begins when the entire surface is dry, then hydrated. This technique ensures the "active" pozzolans in the mortar bond together as a whole, hardening in the process.

### PROCEDURE:

1. Begin the first cure cycle using "appearance-based determination" for each mortar layer.
2. As applied mortar dries, the appearance changes from dark to light. When dark, it is visibly damp. As water evaporates from the layer, it becomes lighter in contrast to the damp areas. In mid-transition between damp and dry, the surface appears mottled. Once mottling disappears and the entire surface area is dry, the moisture-curing cycles can begin by hydrating the surface.
3. Weather conditions and mortar layer thickness affect how quickly the mortar transitions from damp to dry. In dry weather, moisture-curing cycles might begin the day of application while in humid weather the cycles might start the following day. Appearance-based determination ensures proper sequencing of the moisture-curing coats for each applied layer of mortar.
4. Once moisture-curing begins, flood all surfaces including terminations at soffits, inside and outside corners, and window/door returns with clean water. This constitutes one moisture-curing cycle. Moisture-curing cycles continue based on layer thickness, as noted in **CURING**.

### Note:

RAIN: PROTECT FRESHLY APPLIED MORTAR.

FROST: DO NOT APPLY IF CONDITIONS EXIST.

# BioLime Pointing Mortar

## Technical Data

Property	ASTM Test Method	Result
Compressive Strength	ASTM C 109	7-day: 348 psi   28-day: 411 psi
Flexural Strength	ASTM C 78	156 psi
Adhesion Strength	ASTM C 1583 pull-off	7-day concrete block: 50.25 psi   7-day porcelain: 42 psi
Solar Reflectance	ASTM C 1549	0.88
Water Vapor Transmission	ASTM D 1653	112 perms
Freeze-thaw	ASTM IN-HOUSE	No deleterious effects after 90 cycles
Water Resistance	IN-HOUSE	No deleterious effects after 14 days
Efflorescence	ASTM E 96 Proc. B	No sign of efflorescence
UV Exposure	IN-HOUSE	210 hours of exposure - Unaffected
Accelerated Aging	IN-HOUSE	25 cycles of drying and soaking
VOC	SCAQMD Method 304	-0.2 wt%
VOC	ASTM D 2369	-9 g/mL
Mildew Resistance	IN-HOUSE	No growth during 60 day exposure period
Water Resistance	IN-HOUSE	No deleterious effects after 90 days exposure
Salt Spray Resistance	IN-HOUSE	No deleterious effects after 1000 hours exposure
Fire Resistance	IN-HOUSE	Class 1A: Non-combustible
Density	ASTM D1475	1.63 g/cc

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

### WARRANTY

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# BioLime Pointing Mortar

## WTA Guidelines

### Testing Results

#### WTA 6.3.6

Capillary water absorption of restoration mortar.

Description: Determine and evaluate the water absorption capacity of a restoration mortar.

The capillary water absorption value =  $1.17\text{kg/m}^2$  (based on exposed surface area of the sample).

The passing criteria for DIN 998-1 =  $0.3\text{kg/m}^2$ .

#### WTA 6.3.9

Determination of open porosity (pore volume) of restoration mortar.

Description: Determine and evaluate the “open porosity” of pores and cavities accessible from the outside.

Average Pore Volume Percentage = 45.3%. The passing criteria for WTA 2-9-04/D = 40% pore volume.

#### WTA 6.3.10

Salt resistance of restoration mortar.

Description: Salt resistance evaluation of a restoration mortar while determining early hydrophobation capacity.

No salt penetration = 20 days. The passing criteria for WTA = 10 days.

Summary: Meets & exceeds the German WTA Guidelines and Testing Standard and suitable for the repair of interior or exterior salt-damaged substrates in above grade-level applications.

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

### WARRANTY

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