



Ti+ACTIVE Plaster

Product Data Sheet

DESCRIPTION

BIOLIME Ti+ACTIVE is a proprietary, premium quality pre-mixed finish coat plaster for new construction and renovation projects.

FEATURES

- Solar-Activated, Self-Cleaning
- Distinctive luminescence
- Anti-cracking
- Durable, long-lasting
- Heat reflective
- Mitigates efflorescence
- Applies easily
- Zero VOC, non-toxic, SCAQMD compliant.

COLOR

WHITE

MAX PARTICLE SIZE

- 2.5 mm "Coarse"
- 1.0 mm "Fine"
- 0.3 mm "ExtraFine"

PACKAGING

45 LB

COVERAGE

BIOLIME Ti+ACTIVE covers approximately 30 square feet per 1/4" coat.

PURPOSE

BIOLIME Ti+ACTIVE is a self-cleaning, premium quality lime-based finish coat plaster tailored for new construction and renovation projects.

BIOLIME Ti+ACTIVE is made from high-grade limestone, select natural pozzolans and natural plant-based derivatives and is designed for Exterior and Interior applications over BIOLIME undercoats: ONE-COAT, SCRATCH, BROWN, BOND.

The addition of Ti+ACTIVE chemistry allow this product an ability to self-clean by oxidizing its surface due to a photo-catalytic reaction with TiO₂ (Titanium oxide) and Sunlight.

Like BIOLIME FINISH, it also functions to mitigate moisture entrapment in sub-surfaces due to its natural composition and elevated pH, allowing the ability to counteract against the formation and proliferation of molds, mildew and bacteria.

EXPERIENCED INSTALLERS

BIOLIME Ti+ACTIVE is intended to be applied by professional applicators who demonstrate experience and craftsmanship and meet the application requirements of BIOLIME product endorsement.

SUBSTRATE

Substrates that apply:

- Smooth-face concrete
- Compressed Earth Block (CEB)
- Concrete Masonry Unit (CMU)
- Cement Stucco
- Synthetic Stucco
- Elastomeric Stucco
- Existing painted surfaces

Consult with BIOLIME for specific recommendations concerning non-traditional wall systems or surfaces.

TECHNICAL INFORMATION

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

Consult 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. Use only as directed.

Lime is a naturally caustic (rapid absorption) material and because of its elevated pH, creates a 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 Ti+ACTIVE Plaster

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 Ti+ACTIVE is a pre-blended product and requires only mixing with water on the job-site.

BIOLIME Ti+ACTIVE requires **5.75 - 6.20 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 wall system applications.

1. Ensure surface is free of construction dust and debris or loose particulate.
2. 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.
3. Apply plaster with even distribution to a maximum 3/8-inch layer thickness.
4. Trowel surface smooth and in plane.

CURING

For every 1/4" (6 mm) of thickness, moist-cure for 3 (three) cycles by flooding entire surface with cool, clean water at 0 PSI (no pressure).

Rule: Each coat requires 3 (three) 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 plaster layer.
2. As applied plaster dries, the appearance of the plaster 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 plaster layer thickness affect how quickly the plaster 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 plaster.
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 PLASTER SURFACES
FROST: DO NOT APPLY IF CONDITIONS EXIST.

BioLime Ti-ACTIVE Plaster

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: 67 psi 7-day porcelain: 56 psi
Solar Reflectance	ASTM C 1549 ASTM	0.88
Water Vapor Transmission	ASTM D 1653	122 perms
Freeze-thaw	INHOUSE	No deleterious effects after 90 cycles
Water Resistance	IN-HOUSE	No deleterious effects after 14 days
Efflorescence	IN-HOUSE	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	1.64 g/cc

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

WARRANTY

BIOLIME warrants this product to be free from manufacturing defects. Satisfactory results depend not only on quality products but also upon many factors beyond our control. BIOLIME MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is shipment to purchaser of product equal to the amount of product that fails to meet this warranty or refund of the original purchase price of product that fails to meet this warranty, at the sole option of BIOLIME. Any claims concerning this product must be received in writing within thirty (30) days from the date of shipment and any claims not presented within that period are waived by Purchaser. BIOLIME WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on BIOLIME's present knowledge and experience. However, BIOLIME assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. BIOLIME reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by **endorsed** and qualified experts.

For the most current version of this literature, please visit our website at www.biolime.com.