

# APPLICATION GUIDE

## BioLime Products



Applying BioLime products for Modern structures is a multi-step process that involves building up layers of the plaster or mortar over a properly prepared substrate. BioLime products should always be installed by competent, skilled, professional plasterers.

The information contained is designed to provide a detailed overview of the most important steps required to plan for a successful project.

Detailed instructions (including drying times) may vary, depending on which type of BioLime product you use, environmental conditions, and the type of surface or substrate receiving BioLime materials.

It is imperative to use the proper tools (detailed within) to yield a successful installation.

Always refer to BioLime Product Data Sheets for each BioLime product used and follow all safety precautions. As with any major building improvement project, check local building codes prior to beginning work.



### 1. Surface Preparation

It is critical to ensure that all surfaces receiving BioLime products are properly prepared prior to application.

All loose material, including existing loose sand or deteriorated plaster surfaces, dust, dirt, oil, grease, and any substrate defects or preexisting delaminated coatings must be removed prior to applying BioLime products. Acceptable methods for surface preparation include the use of a pressure washer or abrasive bead-blasting system, as well as various commercial cleaning solutions. Always follow manufacturer's instructions and rinse cleaned surfaces with fresh water to ensure all loose material and/or residue is completely removed.

**Repairing Damaged Areas:** Fix any large cracks or deeply spalled areas with BioLime BioPro REPAIR, following the directions depicted in the BioLime BioPro REPAIR Technical Data Sheet.

### 2. Maintain Control and Expansion Joints

Follow the standards set forth by the Stucco Manufacturer Association.

(<https://stuccomfgassoc.com/wp-content/uploads/2020/05/Control-Joints-for-Stucco-1.pdf>)

### 3. Window Termination Details

Follow the standards set forth by the Stucco Manufacturers Association.

(<https://stuccomfgassoc.com/wp-content/uploads/2020/06/WINDOW-DETAILS-11947.pdf>)

### 4. Consider Weather Conditions

BioLime materials should only be applied on dry days when temperatures are consistently above 40°F with substrate temperatures consistently equal to, or above 40°F over several weeks.

**DO NOT APPLY WHEN FREEZING TEMPERATURES ARE EXPECTED WITHIN 3 WEEKS OF APPLICATION.**

## 5. Applying BioLime Plasters

BioLime materials should only be applied on dry days when temperatures are consistently above 40°F with substrate temperatures consistently equal to, or above 40°F over several weeks.

### Tools needed for proper application of BioLime products:

- Brooms for cleaning walls and all plaster surfaces
- Pump Sprayer (interior surfaces)
- Garden Hose with misting nozzle (exterior surfaces)
- BioLime Finishing Trowels (*LUSTRO* Trowel)
- Paint rollers and brushes for AquaGuard Protectant
- Power mixing Tools
- Mixing Paddles
- Thickness measuring ruler
- Utility Knife
- Clean Mixing Pails
- Scaffolding

Selecting the proper BioLime products is critical for a successful application. Various building and wall construction technologies require specific solutions. Refer to BioLime 3D isometric drawings and Architectural Guide Specifications depicting specific types of construction for selecting the proper BioLime products. Visit <https://biolime.com/> for detailed information.

All surfaces receiving BioLime Lime Plasters must be properly prepared as detailed above, and as depicted in sections 1-4. All wall assemblies with acceptable substrates must be rigid and solid and constructed according to local building codes.

Mix All BioLime Products with clean, potable water, using the proper mortar mixing machines noted in the corresponding Technical Data Sheet.

**Note:** Do not mix or cure BioLime products using hot water. During hot conditions, run all hot water through hoses until cool water is available for use.

### *BioLime Bond XTR* *BioLime Bond XTRF* *BioLime Base XTR* *BioLime Base XTRF*

Prepare the properly cleaned substrate surface to receive the 1st layer of BioLime (Bond or Base) by moistening the surface with clean, potable water using a low (0-5 psi) pressure device such as pump sprayer or garden hose with a nozzle capable of producing a fine mist pattern. Apply water mist so that the surface is saturated with no visible running or dripping water. Surface should be damp, but not slippery when touched.

Apply the first layer Bond or Base with premium, quality stainless steel trowels using significant pressure to ensure full contact with the substrate. Continue to apply additional material with a smooth troweling motion building the layer up to a minimum thickness of 6mm (1/4"). Every effort should be employed to achieve an even thickness of the base/bond. Do not spray excess water onto the wet plaster during troweling. The goal is to achieve a relatively consistent surface to receive the next layer of BioLime products (BioPro Build, BioPro Finish XTR, etc.). Scarifying the surface is recommended.

**Once the layer is completed and fully dry for a minimum of 24 hours, the 1st Curing cycle must be performed. (See Step 6 – Curing Cycle)**

### *BioLime Build*

Apply BioLime Build with a quality stainless steel trowel using significant pressure to ensure full contact with the substrate. Continue to apply additional material with a smooth troweling motion building the layer up to a minimum thickness of 6mm (1/4"). Every effort should be employed to achieve an even thickness of the BioLime BioPro Build. Do not spray excess water onto the wet plaster during troweling. The goal is to achieve a relatively consistent surface to receive the next layer of BioLime products (BioPro Finish XTR, etc.).

**Once this layer is completed, curing must be performed. (See Step 6 – Curing Cycle)**

## BioLime Finish XTR

BioLime Finishing products are applied at an overall thickness of 6mm (1/4"). To achieve highly smooth results, it is strongly advised to apply these finishing plasters as two (2) total layers at a minimum of 3mm each utilizing BioLime Professional LUSTRO Finishing Trowels. (For purchasing visit <https://biolime.com/product/pro-trowels/>).

Apply the 1st (first) layer to a minimum thickness of 3mm using adequate pressure to ensure full contact with the previously applied BioLime layer (Base, Bond XTR/XTRF, Build). Every effort should be made to achieve an even, flat surface, being careful not to overwork the material, and leaving a relatively smooth finish to prepare for the final finishing layer. **DO NOT SPRAY ADDITIONAL WATER ONTO THE BIOLIME FINISH DURING THIS PROCESS.**

As the first layer begins drying a "mottling effect" will appear (some areas drier than others). **Do not spray excess water onto the surface while applying the final 3mm (1/8") layer.** You may then begin applying the final layer using adequate pressure to ensure full contact with the existing surface. Apply with a smooth troweling motion, building the final thickness up to a minimum of 6mm (1/4").

**DO NOT TO OVER-WET OR OVERWORK THE PLASTER DURING THIS FINAL STAGE OF FINISHING AS THIS MATERIAL MAY WEAKEN THE FINAL FINISHED SURFACE.**

To achieve highly smooth and flattened finishes, use appearance-based determination to identify the ideal time to begin the flattening and burnishing process. The timing to perform this task is when the final surface begins to appear "mottled" (some areas drier than others). It is critical during this step that the surface is not allowed to become fully dry. Once ready, the final finishing step can begin. Use a light misting of clean, potable water onto the surface while applying firm, even pressure to achieve the desired burnishing effect.

Proceed with the required Curing steps in the following section.

## CURING CYCLE

Curing BioLime Lime Plasters is critical to ensure the longevity and performance of your project.

Each fresh-applied plaster layer must be allowed to completely dry for a minimum of 24 hours. Drying times will vary depending on environmental conditions. However, 24 hours is typically sufficient. The plaster is considered dry when the entire application area achieves a uniform color.

After determining that the applied layer has dried sufficiently, the 1st curing cycle can begin.

Start the 1st cycle by inspecting the entire application area ensuring that no debris or dirt has accumulated on the surface, removing any obvious contaminants. Begin curing by misting the entire surface with clean potable water utilizing a pump sprayer or garden hose with a misting nozzle setting using the least amount of pressure (0-5 psi). Be careful not to oversaturate the surface to excessive running water. Ensure that the entire plaster surface has been dampened thoroughly and evenly. The entire surface should achieve a deeply hydrated, uniform appearance.

This 1st cycle must now be allowed to dry completely for a minimum of 24 hours. Drying times will vary depending on environmental conditions. The plaster is considered dry when the entire application area achieves a uniform color.

This curing cycle must be performed a minimum 3 times before applying the next layer of BioLime product. All subsequent BioLime layers must be cured using the same process detailed above.

After all layers of BioLime products have been properly cured, the application areas should be protected from severe weather and contamination of dirt and debris for at least 3 weeks.

The optional application and treatment with BioPro AquaGuard may then be performed.

## ***BioPro AquaGuard Protectant***

To ensure lasting beauty and performance of your BioLime project, BioLime surfaces may be treated with BioPro AquaGuard Protectant. This will enhance the appearance of your BioLime finishes and help prevent fading, while protecting against algae, mold, mildew and staining from environmental conditions. Once properly applied, BioPro AquaGuard Protectant will ensure the beauty of your BioLime finishes for years to come.

To apply BioPro AquaGuard Protectant, a paint brush or roller should be used. Mix the contents thoroughly prior to application. BioPro AquaGuard Protectant is applied by hand in the same way traditional paints and coatings are applied. Apply liberal amounts of BioPro AquaGuard Protectant evenly and consistently over the entire BioLime surface. Brush or roll out any runs and drips. Allow the BioPro AquaGuard Protectant to dry completely (24-48 hours depending on environmental conditions) and then proceed with a second application following the same technique described above.

Protect the areas treated with BioPro AquaGuard Protectant from extreme weather and rain for a minimum of 72 hours. If surfaces are rained on prior to the minimum 72 hour drying period, a third treatment should be applied once dried completely and then protected from weather as noted above.

For additional details, visit the BioPro AquaGuard Protectant Technical Data Sheet at:

<https://biolime.com>