

# Technical Data Sheet



# LIME PRIME



**Recommended Use**

## Features

- ZERO VOC.
- Advanced Inorganic Mineral Technology Directly Covers Mold Stains and Resists Mold Growth on the Wet and Dry Coating.
- USGBC LEED Points: IEQ4.2: Low Emitting Materials Paints and Coatings. V4.1 ID+C: Commercial Interiors (1-2 points) } ID+C: Retail (1-3 points) } ID+C: Hospitality (1-2 points).
- Exceeds requirements Green Seal GS-11, SCAQMD Rule 1113.
- Continuous Air Barrier, ASHRAE Standard 90.1, Sect. 5.4.3.1, when applied to building envelope with Lime Seal x 2 coats (Air and Vapor Barrier).
- Encapsulates & Protects Mold Stained surfaces and buildings in moist Hurricane and Flood Zones.
- Wall Cavities: Reduces odors, protects back of drywall and internal wall structures.
- Pozzolanic reaction: minerals, concrete, stone, rock. Dries Under Moist Brighten.
- New Construction: Fast Dry, Low Odor, High Hiding, meets or exceeds ASTM D2805-88 Requirements.
- Moist Surfaces: Can be safely applied to high moisture content surfaces. Lime Prime does not create a Mold Atrium of rot by trapping moisture under an impermeable latex film.
- Breathable: Allows flood-soaked surfaces to dry out safely during immediate occupation after disasters. *[Professional Follow up within 30-60 days.]*

## General Properties

Lime Prime is a white, breathable, non-flammable, mineral primer. Engineered to penetrate and encapsulate porous or non-porous painted surfaces - wood, drywall or concrete - while remaining vapor permeable. Thus, allowing moisture content to be safely regulated without trapping moisture or causing mold / rot problems.

## Healthy Sustainable Ingredients

Water, Calcium Hydroxide, Earth Oxide Pigment and Inorganic Minerals, Georgia Clay, Crushed Limestone, Non-Hazardous (proprietary) Resin & Binders.

Wood, Concrete, Drywall.

Residential, Commercial, Industrial Construction Primer. Surface Primer for Mold Abatement / Remediation Projects. Repainting, Disaster Relief, Mold Abatement / Remediation Projects, Building Envelopes, Wall Cavities...

## Technical Data

- Volatile Organic Compounds (VOC):** 0.00 g/L
- Vehicle Type:** Proprietary Non-Hazardous Resin.
- Pigment Type:** Earth Oxide Pigments, Lime.
- Volume Solids:** 47.6%
- Theoretical Coverage at 75 F (23 C) and 50% R.H.:**
  - Range: 150-400 sq ft / gal
  - Porous Concrete Block Raw: 150 sq ft / gal
  - Raw Drywall: 200-250 sq ft / gal
- Suggested Maximum Spread Rate**
  - Walls, Frames, Building Envelopes: 300 sq ft / gal
  - Previously Coated Surfaces: 400 sq ft / gal
  - Flood Zone Buildings: 300 sq ft / gal
- Recommended Film Thickness:** 3-4 Mils
- Dry Time @ 77 F (25 C) @ 50% R.H.**
  - Set to Touch: 40 - 90 Minutes
  - To Recoat: 4 - 8 Hours
  - To Light Service: 8 Hours or overnight
- Number of Coats:**
  - Apply 1 coat and topcoat with 2 coats of Lime Seal. *See Basic Application exceptions.*
- Dilution:**
  - Add up to 32 oz. (1 Qt) per gal with clean water if desired. Add 1 gal water to four gallons of Lime Prime.
- Dries By:** Evaporation, Coalescence
- Viscosity:** >100 ±3KU
- Flash Point:** Non-Flammable
- Specific Gravity:** 1.33
- pH:** Similar in nature to concrete. Product is 12-12.5 when wet. Dries to a pH neutral state. If moist mold spores or water contact coating pH will automatically raise. When dry it returns to a neutral state.
- 60-Degree Specular Gloss:** Less than 5: Flat
- Surface Temperature at Application:**
  - Minimum: 55 F, Maximum: 90 F
- Storage Temperature:** 55-90F

**Clean Up:** Water.

**Weight Per Gallon:** 12.5 lbs.

### Colors

Bright White, Primer Grey or No Added Color.

### Limitations

Consult Professionals before attempting Mold Remediation Projects. Always test for personal sensitivities, Allergies and preferences in small inconspicuous areas before application to the entire surface.

Do not paint uncoated Aluminum.

Do not freeze.

**Repainting Oils:** Sand oil-based coatings 120 grit to dull. Wash with Earth Clean and then test Lime Prime for adhesion before using on large scale oil based repaints. Lime Seal may bond better to some oil-based coatings. NanoTech Pint of White is the best oil to water based transitional primer for difficult areas. Highly Problematic areas sometimes require a first coat of Mountain - Pint of White then NanoTech - Pint of White, then Lime Seal topcoats.

**Stain Blocking:** Water Stains, knots and sap should be spot treated with an oil stain blocker. Lime Prime is not a stain blocker. It will cover mold stains and mild water stains but may not block severe water stains or tannin bleed. Mountain Pint of White is the best long-term stain block we have seen in severe areas. Generally, tough stains require spot priming with a strong oil gloss to prevent future bleed through. (*Shellac and water-based stain blocks often fail over time in moist or flood prone areas.*) 1.) Lime Prime entire surface to bind stains. 2.) Then apply strong oil-based stain blocker, 2-3 coats. 3.) After stain block dries apply 2 coats of a quality acrylic topcoat like Lime Seal.

**Follow-Up** within 30-60 Days with Professional Repairs as needed. Lime Prime is not a replacement for *Professional Assessment* and repairs.

### Surface preparation

Professionally inspect structural integrity. Wash surfaces with **Earth Clean** as needed. Remove unsound coatings. Cover all areas not to be coated. Avoid painting copper water pipes (condensation, sweating, readability for plumbers) and electric wires (readability for electricians).

### Basic Application

(*Follow Health Precautions and use protective gear appropriate to each project*) Stir thoroughly. Spray, brush or roll onto surface with an even comprehensive method. Always Back roll or back brush when spraying. When rolling use 3/8" - 3/4" nap roller cover. Pour material out of a *mix pot and into a work pot*. Allow coating and *substrate* to dry appropriately. Apply two coats of a quality acrylic topcoat. [*Lime Seal is the best topcoat since it is engineered to work synergistically with Lime Prime, increasing and extending efficacy.*]

Two applications: Apply two coats of Lime Prime for problematic areas where severe mold causing conditions persist. Do not apply two coats during disaster relief, where flood victims are trying to re-inhabit buildings quickly for shelter. In these cases, apply one coat to safely encapsulate and allow surfaces to dry out. Use fans to cross ventilate and **Follow up professionally within 30-60 Days.**

### Spraying, Floods, Concrete & more...

**Spraying Note:** Product is typically diluted one quart per gallon with water when spraying. This will depend on the strength of the sprayer. Test first to ensure the sprayer is strong enough to produce an even spray fan. Dilute up to 1 qt / gal to produce even spray pattern. Follow health precautions for spraying.

**Flushing Lines:** Flush 10% Earth Clean and water through spray rig before and after spraying. Continue to flush until rinse water is clear. 10% Earth Clean to water adds extra cleaning power if needed. This is helpful for cleaning guns, pumps and getting oils out of the spray rig.

**Airless Spray: For Walls** Use 2000-3000 PSI, Large Tips .017-.019 -.021 and a 50-mesh filter. Backroll when spraying. **For Trim:** 2500 PSI Airless or HVLP, Narrow Fan .011 Tip and 80 mesh Filter. Use fast, precise strokes.

**Flood Damaged / Wet / Moldy Areas:** Conduct Professional Assessment. Insure structural stability. Dry wet surfaces as much as possible. Ideally full professional repairs are conducted before flooded buildings are occupied. Obviously, flooding is seldom ideal, so when spaces must be occupied immediately, remove all fabrics and wet items. Pull out baseboards and any rotted drywall. Spray Lime Prime into wall cavities and encapsulate all occupied painted surfaces, subfloors, basement, crawlspace, attic, walls, ceilings... Leave fans on and keep fresh air moving in cross ventilation. Follow up Professionally

within 30-60 days.

**Thick or Slimy Areas:** Towel dry any thick, wet or slimy areas with a towel before coating. If heavy dirt and debris around mold stains cannot be cleaned plan on spot repairing any encapsulated, peeling areas caused by heavy debris, after surfaces have dried out. Normal mold stains can be coated directly without issue and it takes an abnormal amount of debris to cause peeling but Follow up with professional repairs within 30-60 days.

**Wall Cavities:** Dilute 1 quart per Gallon with water. Spray all Wall Cavities and the back of Drywall. In New Construction this can be scheduled after the Frame is up and before Windows and Doors are installed making the work fast, affordable and unobstructed.

**Building Envelopes:** Create a Continuous Air Barrier, ASHRAE Standard 90.1, Sect. 5.4.3.1, when applied to building envelope with Lime Seal x 2 coats (Air and Vapor Barrier). Brush, Roll or Spray before caulk or tape is applied. Fill appropriate voids, crevices, seams to provide a solid base for any caulking or flashing to embed into.

**Vapor Barrier:** *Topcoat Lime Prime with 2 coats Lime Seal to create a durable Vapor Barrier. On flooded areas this can be done after Lime Prime has allowed moisture content to reduce to an acceptable level [15% or less Moisture Content is recommended before fully sealing surfaces on all sides.]*

## Concrete

**Concrete Floors:** *[Follow Basic Application for repainting residential floors. This section is for raw or commercial concrete projects]* Lime Prime undergoes pozzolanic reaction when it penetrates raw concrete. This cures very similar to cement and forms a cementitious coating that is breathable, durable, and highly beneficial in concrete, especially concrete that is problematic from a moisture perspective.

Concrete Vapor Pressure: Humidity, Moisture Content, Dew Point, Temperature, Ground Saturation and Air Flow are some factors that cause polymer failure on concrete floors that are not properly treated. This issue is compounded for concrete floors in flood zones. ASTM D 4263 – plastic sheeting test isn't sufficient to determine amount of moisture movement, which after a flood, is something we really need to know before sealing. Two tests that are recommended:

ASTM F2170 - 19– Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes.

ASTM F1869 - 16a Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride

Concrete Prep: Professionally prepare interior / exterior concrete for coating (abrasive / mechanical methods). Concrete is alkaline. Normal concrete pH should range 11 to 13. Scrub with Earth Clean to remove acidity, dirt, grease. Lime Prime can be applied to high moisture content concrete, if needed, until satisfactory Saturated Surface Dry can be achieved. Vapor Pressure activity in the concrete must be understood and addressed before sealing concrete with non-permeable polymers. Lime Prime may serve as a useful placeholder on commercial projects if moisture issues are present. It will also serve as a solid primer for Lime Seal on residential and low traffic commercial concrete floors.

## Health, Storage, Disposal

**STORAGE AND DISPOSAL:** Unopened product is good for one year from date of purchase. Store indoors 55-90F. Do not freeze.

**DISPOSAL:** Triple rinse container and recycle or send to landfill or as approved by Federal, State and local authorities. Dispose unused product according to Federal, State and local guidelines. Do not contaminate water, food or feed by storage, clean up or disposal of this product.

**ENVIRONMENTAL HAZARDS:** Do not contaminate water with the wash and rinse waters used for clean up of this product. *(Calcium hydroxide, aka lime, has a low environmental contamination potential. It is used as a liming treatment to ultimately improve the health of eutrophic lakes.)*

## HEALTH PRECAUTIONS

**DANGER! CORROSIVE.**

In severe cases, when in contact with eyes, may cause irreversible eye damage. Do not get in eyes or on clothing. Wear protective eyewear at all times when preparing, applying or otherwise using (goggles, face shield, safety glasses). Avoid direct contact with skin while applying. Avoid breathing vapors, spray, mist or sanding dust. When sanding wear a dust mask. If applying the coating indoors, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headache, or dizziness, or if air monitoring demonstrates increased vapors or mist wear an appropriate, properly fitted respirator (NIOSH / NSMH

approved or equivalent) during application. Follow respirator manufacturer's directions for use.

### **FIRST AID**

Have the product container or label with you when calling a poison control center, doctor or treatment center. Inform medical personnel that Lime Prime contains lime or calcium hydroxide a strong alkaline material.

**IF ON SKIN:** Rinse sensitive skin immediately with plenty of water for about 5 minutes. Call a doctor or poison control center for treatment advice as necessary.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for about 5 minutes. Remove contact lenses if present. Continue rinsing eye if irritation is present or contact doctor for treatment. Call a doctor or poison control center for treatment advice immediately if eyes remain irritated or if vision is blurry.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Drink promptly a large quantity of milk, egg whites, gelatin solution or if these are unavailable drink large quantities of water. Avoid alcohol. Do not induce vomiting. Do not give anything by mouth to an unconscious person. **NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage. Treat as alkaline contact. **DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN IN CASE OF EMERGENCY CONTACT YOUR LOCAL EMERGENCY MEDICAL CENTER.**

**LIMITED WARRANTY:** This product is guaranteed to be free from manufacturing defects. No other warranty is expressed or implied. Due to the infinite jobsite possibilities and biological conditions, mold prevention is not guaranteed. It is the user's responsibility to test first and determine suitability for each project.

### **CONTACT:**

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