



THE HEMP ABODE

NATURAL. STRONG. FIRE RESILIENT.

MINERAL PLASTER FINISH SYSTEM

NATURAL MINERAL BEAUTY. ENGINEERED PERFORMANCE.

Our mineral plaster finishes are breathable, durable, and chemically bonded to hemp composite panels—delivering high performance, long-term protection and timeless natural beauty.

- NON-TOXIC
- VOC FREE
- BREATHABLE
- REGENERATIVE
- MADE TO LAST

CHEMICAL BOND: FUSING AT THE MOLECULAR LEVEL

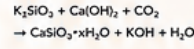
Our mineral plaster finish chemically reacts with the hemp composite panel through a process called silicification.

Potassium silicate reacts with minerals and the natural magnesium in hemp, forming an insoluble silicate matrix that penetrates and becomes part of the substrate—not just a surface coating.



SILICIFICATION PROCESS

Potassium silicate (K_2SiO_3) reacts with minerals in the plaster and hemp composite to form a stable, insoluble silicate matrix.



Result: Permanent mineral integration and enhanced durability.

KEY BENEFITS

- Chemically fuses to hemp panel
- Will not peel, flake or delaminate
- Increases strength & durability
- Enhances fire & weather resistance
- Allows moisture vapor to escape
- Resists mold, mildew & algae
- UV stable & color enduring
- Built for decades of performance

TESTED. PROVEN. HIGH PERFORMANCE.

VAPOR PERMEABILITY
(Water Vapor Transmission)
ASTM E96 / E96M

25.3 PERMS
(24.38 mg/(Pa·s·m²))

HIGHLY BREATHABLE
Allows moisture to escape while resisting liquid water.

MOLD & MILDEW RESISTANCE
ASTM D3273

10 RATING
(BEST RATINGS)

Inherent alkalinity and mineral composition prevent mold and mildew growth.

FIRE RESISTANCE
ASTM E84 (Surface Burning Characteristics)

FLAME SPREAD INDEX **0** (BEST RATING) SMOKE DEVELOPED INDEX **5** (BEST RATING)

Class A Rating
Non-combustible • Excellent fire performance
Contributes to safer, healthier buildings.

SILICIFICATION & DURABILITY

- Silicification creates a permanent mineral bond
- Increases hardness & abrasion resistance over time
- Resists UV degradation
- Will not chalk, flake, or peel
- Becomes more durable as it ages

WEATHER RESISTANCE

- Water resistant
- Wind resistant
- UV stable
- Freeze / thaw stable
- Salt air resistant
- Ideal for all climates

ALKEMIS® MINERAL PAINT – ASTM TEST DATA



TEST	ASTM STANDARD	RESULT	PERFORMANCE
VOC Content	ASTM D2369	0 g/L	VOC Free
VOC Emissions	ASTM D5116	Complies	Meets CDPH v1.2
Scrub Resistance	ASTM D2486	≥ 10,000 cycles	Excellent
Washability	ASTM D4828	Excellent	Maintains finish
Opacity	ASTM D3805	≥ 98%	High hiding
Fungus Resistance	ASTM D3273	No growth	10 (Best Rating)
pH	ASTM E70	~11.5	Naturally alkaline
Heavy Metals	ASTM F963	Not detected	Safe for all
Combustibility	ASTM D635	Self-extinguishing	Fire resistant

*Tested in natural white. Results may vary by color. Full test reports available upon request.

KEIM CONCRETAL® W MINERAL PAINT – ASTM TEST DATA



TEST	ASTM STANDARD	RESULT	PERFORMANCE
VOC Content	ASTM D2369	0 g/L	VOC Free
VOC Emissions	ASTM D5116	Complies	Meets CDPH v1.2
Scrub Resistance	ASTM D2486	≥ 10,000 cycles	Excellent
Diffusion (Vapor Perm.)	ASTM E96	≥ 25 perms	High Breathability
Water Absorption	DIN EN 1062-3	W < 0.1 kg/m ² ·h ^{0.5}	Low Absorption
Alkali Resistance	DIN EN 13580	No change	Excellent
pH	ASTM E70	~11	Naturally alkaline
Lightfastness	ISO 105-B02	8 (Excellent)	UV Stable
Combustibility	DIN 4102	A2-s1,d0	Non-combustible

*Tested in natural white. Results may vary by color. Full test reports available upon request.

INDIVIDUAL COMPONENTS: PURPOSE & PERFORMANCE

ALKEMIS® OR KEIM PAINT



- Pure mineral silicate paint
- Breathable & VOC free
- Chemically compatible with mineral substrates
- UV & weather resistant
- Creates a durable, matte mineral finish

MICRO-CEMENT



- Hydraulic mineral binder
- Adds strength and durability
- Improves density and adhesion
- Enhances longevity and weather resistance

MARBLE DUST



- Finely ground natural marble
- Provides smooth, refined texture
- Improves workability and coverage
- Enhances hardness and aesthetics

DIATOMACEOUS EARTH



- Natural silica from diatom fossils
- Increases breathability and vapor openness
- Reduces weight
- Improves crack resistance

KAOLIN CLAY (Interior Only)



- Natural clay mineral
- Adds softness and workability
- Improves trowel and rollability
- Creates a smooth, velvety feel

BASALT FIBERS (3 mm)



- Chopped basalt fibers
- Bridge micro-cracks
- Improves tensile strength and impact resistance
- Enhances durability and movement tolerance

POTASSIUM SILICATE



- Liquid mineral activator
- Drives silicification process
- Increases hardness and abrasion resistance
- Binds minerals and strengthens the matrix

CELLULOSE ETHER



- Natural plant-based thickener
- Improves water retention
- Enhances workability and sag resistance
- Stabilizes the mix for smooth application

CALIFORNIA BUILDING CODE COMPLIANCE



Our mineral plaster finish systems are designed to comply with the California Building Code (CBC), including:

- CBC CHAPTER 7A – MATERIALS & CONSTRUCTION METHODS FOR EXTERIOR WILDFIRE EXPOSURE
- CBC CHAPTER 14 – EXTERIOR WALLS
- CBC CHAPTER 7 – FIRE RESISTANCE RATED CONSTRUCTION

Tested to ASTM E84 (Class A), ASTM E96 (Vapor Permeability), and ASTM D3273 (Mold & Mildew Resistance).

MANUFACTURER INFORMATION

ALKEMIS® MINERAL PAINT

Manufactured by:
Alkemis Paint
Eugene, Oregon, USA
alkemispaint.com
info@alkemispaint.com



KEIM CONCRETAL® W

Manufactured by:
KEIM Mineral Coatings
Diedorf, Germany
keim.com
info@keim.com



SUSTAINABLE. DURABLE. TIMELESS.

Our system is built on natural mineral chemistry and designed for the long term — reducing environmental impact while delivering unmatched performance.

- Made with abundant natural materials
- Low embodied energy
- Durable for decades
- Supports healthier buildings
- Beauty that only improves with age



NATURAL MINERALS
No plastics. No compromise.



BREATHABLE
Allows walls to breathe naturally.



NON-COMBUSTIBLE
Class A Fire Rating.



REGENERATIVE
Good for people and planet.



BUILT TO LAST
Performance that endures.