ECOPAINT Corporation

TECHNICAL DATA SHEET — Mineral Powder Paint (EXTERIOR)

Description

Mineral powder paint for exteriors, based on hydrated lime with natural binders and organic water repellents. Matte to satin-matte finish, high breathability and water repellency. No added VOCs.

Composition (powder)

Hydrated lime (EN 459) ... 60–70%

Bio fixatives ... 15 - 25%

Mineral fillers/adjuvants ... 9–14%

Colors / Finish

White and light/UV stable mineral colors.

Shine: matte to satin-matte (gloss 5–12 @ 60°), slight water beading.

Compatible substrates

Lime/cement plaster facades, concrete, brick, mineral stone, expanded cork/aglo (previously sealed).

Avoid water-repellent surfaces with recent silicones without sanding/priming.

Surface preparation

Clean dust, dirt, moss (controlled washing; compatible biocide if necessary).

Repair cracks; respect curing times for new plaster (≥14 days).

Regular absorption with mineral primer (see note in Interior).

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Product preparation (reconstitution)

1 kg of powder: 0.50–0.65 L of water.

Mix for 4–6 min, mature for 20–30 min, mix again.

Mixing life: 6–8 h.

Application

Tools: facade brush, medium-pile roller, airless (0.019–0.023; 160–200 bar).

Conditions: 8–30 °C; RH < 80%; avoid rain for the next 24–48 h.

Coats: 2 (3 on very exposed surfaces/intense colors).

Interval between coats: 8–12 h.

Touch dry: 1–2 h | Initial cure: 24–48 h | Functional cure and maximum scrub/water resistance: 7–10 days (polymerization).

Typical yield

5–7 m^2/kg/coat (smooth sealed facade).

Roughness/absorption may reduce performance.

Performance / Endurance (target values)

Vapor permeability (ISO 7783): V1 (high).

Water absorption w24 (EN 1062-3): class W2 → W1 (superior repellency).

Resistance to wet scrubbing (EN ISO 11998 / EN 13300): Class 2 (good washability – moderate scrubbing with neutral detergent after curing).

Adhesion (ISO 4624): substrate cohesion as a typical limiting factor in mineral supports.

UV/weathering resistance: mineral pigments and mineral binder → very good color stability.

Reaction to fire (EN 13501-1): A1 expected (to be confirmed; low organic content).

VOC: ≈ 0 g/L.

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Ltool washing

Immediately after use, with warm water and neutral detergent.

Waste: send to a suitable container; do not pour into the ground/waterways.

Storage and validity

Dry powder, sealed, in a cool/dry place: 18–24 months.

Protect from moisture. Mixture: use on the day.

Security

Alkaline product; wear gloves, glasses, dust mask.

Avoid contact with eyes/skin; in case of contact, wash with plenty of water.

Reference Standards (applicable to the type of product)

EN 459 (Building lime)

EN 1062 (Exterior masonry/concrete cladding systems)

EN 1062-1/-3 (classification; absorption w)

ISO 7783 (Vapor Permeability)

EN 13300 / EN ISO 11998 (Classification and resistance to scrubbing)

EN 13501-1 (Reaction to fire)

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ADVANTAGES

Ecological and Functional Advantages of Ecopaint Natural Antibacterial and Antifungal Mineral Paints

Hydrated lime gives the paint a highly alkaline pH (≈12), an environment in which fungi, bacteria and mold cannot survive.

This allows you to protect interior and exterior surfaces from mold, moss and algae, without the need for synthetic biocides.

It is especially advantageous on damp walls, basements, kitchens, bathrooms, bedrooms, living rooms, etc.

Vapor permeable / “breathes”

The microporous mineral structure allows the walls to breathe, releasing interior moisture without forming bubbles or peeling.

Prevents condensation and improves thermal comfort.

Ideal for bioclimatic constructions, made of cork, adobe, wood, cement, concrete, blocks or hemp.

Fully biodegradable and compostable

All components (lime, minerals and fixatives) are 100% biodegradable.

Dry or liquid paint residue can be incorporated into agricultural soils without any toxicity — lime even slightly corrects the soil's pH, reducing acidity.

Small amounts can be used as a corrective additive in clay soils or mixed into organic compost.

Air purification

Lime absorbs carbon dioxide (CO_2) during carbonation, transforming back into calcium carbonate ($CaCO_3$).

Thus, each m^2 painted helps to capture atmospheric CO_2 throughout the life of the paint.

This natural reaction reduces the building's carbon footprint.

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ADVANTAGES

High reflectance and thermal comfort

Mineral paints strongly reflect solar radiation, reducing surface heating of exterior walls.

Indoors, they increase natural light, improving visual comfort and reducing the need for artificial light.

Incombustible

Composed essentially of mineral materials (lime and silica) and fixatives in small quantities, it is naturally non-combustible (Class A1).

Ideal for applications in areas with fire protection requirements.

Other practical advantages

Odorless and solvent-free.

It can be reconstituted several times by adding water (if it dries in the bucket).

Excellent adhesion to mineral substrates, cork, lime, cement and porous wood.

Compatible with traditional restoration techniques and modern bio-construction.

High yield and long storage (dry powder up to 2–3 years).

Maia, 10/2020 Rui Amorim