ECOPAINT Corporation

TECHNICAL DATA SHEET — Mineral Powder Paint (INTERIOR)

Description

Mineral powder paint for interiors, based on hydrated lime and natural binders. Matte mineral finish, high vapor permeability, and natural fungus resistance due to the alkalinity of the lime. No added VOCs.

Composition (powder)

Hydrated lime (EN 459) ... 70–80%
Fine mineral fillers (carbonates/silicas) ... 15–20% Process additives (anti-caking agent, bio humectant) ... <2%

Colors / Finish

Mineral white; light colors with stable mineral pigments (oxides).
Gloss: deep matte (gloss < 5 @ 60°).

Compatible substrates

Lime/cement mortars and plasters, concrete, plasterboard (mineral primer), brick, natural stone, agglomerated cork.

Not recommended directly on smooth wood or recently waterproofed surfaces without a suitable primer.

Surface preparation

Dry, cohesive, clean substrate free from dust/grease.

Correct cracks and defects; wait for new plaster to cure (≈14 days minimum).

Regular absorption with diluted mineral primer (1 part reconstituted paint : 1–2 parts water) or fine lime water on very absorbent substrates.

Product preparation (reconstitution)

Guide ratio: 1 kg powder : 0.55–0.70 L water.

Slowly add the powder to the water while stirring; mix for 3–5 minutes until smooth; mature for 15–20 minutes and mix again.

Mixing life: ~8 h in a covered bucket.

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Application

Tools: brush, short/medium pile roller, airless (0.017–0.021 nozzle; 150–180 bar).

Conditions: 8–30 °C; RH < 80%; avoid drafts/direct sunlight.

Coats: 2 (possibly 3 in strong colors).

Interval between coats: 6–12 h.

Touch dry: 1–2 h | Initial cure: 24 h | Functional cure: 7 days.

Typical yield

6–8 m^2/kg/coat (smooth and sealed substrate).

It can vary 20–30% depending on roughness/absorption.

Performance / Endurance (target values)

Vapor permeability (ISO 7783): class V1 (high) – SD < 0.14 m.

Water absorption (EN 1062-3, w24): class W2 (medium) typical for mineral matt finish.

Resistance to wet scrubbing (EN ISO 11998 / EN 13300): Class 3 (light cleaning with a damp cloth and neutral detergent).

Adhesion (ISO 4624, on prepared mineral substrates): substrate cohesion often limiting.

Reaction to fire (EN 13501-1): A1 intrinsic for mineral film without significant organics (to be confirmed by test).

VOC: ≈ 0 g/L (no added solvents).

Tool washing

Warm water and mild detergent immediately after use.

Do not dump waste into soil or waterways.

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Storage and validity

Dry powder in closed packaging, cool and ventilated environment: 24– 36 months.

Protect from moisture. Reconstituted mixture: use the same day.

Security

Alkaline product (pH of lime in water >11). PPE: gloves, goggles, dust mask. Avoid contact with eyes/skin.

Safety Data Sheets available upon final formulation.

Reference Standards (applicable to the type of product)

EN 459 (Building lime)

EN 13300 (Classification of interior coatings – gloss, hiding power, scrubbing)

EN ISO 11998 (Resistance to wet scrubbing)

ISO 7783 (Vapor Permeability)

EN 1062-3 (Water absorption w)

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