TECHNICAL DATA SHEET ALKEMIS INTERIOR MINERAL WALL PAINT FOR WALLS & CEILINGS

Please note: although Alkemis Paint is easy to apply and requires no special equipment or training, it is fundamentally different than latex/acrylic paints.

To set you (or your painting contractor) up for best success and optimum long-term paint performance, please read and follow the application instructions carefully. You can also access them here on our website: https://alkemispaint.com/pages/tutorials

If you still have additional questions or require technical assistance, we are here to help at any step along the way! Please email us at support@alkemispaint.com or call us at (347) 867-8209.

SUPPLIES NEEDED

FOR A UNIFORM MATTE MINERAL FINISH:

- Alkemis Interior Mineral Wall Paint
- Nylon/polyester brush (2 2.5" angled brush for cutting in)
- Drop cloth
- Painter's tape
- Large mixing bucket (2 5 gallon)
- Large paint tray (18 22")
- Spray bottle with water
- Measuring cup
- Power drill with <u>paddle mixer attachment</u> (if you do not have a paddle mixer, please stir as thoroughly as possible by hand with stir sticks)
- If using a roller, use a 3/8'' nap synthetic roller (for drywall) or a 1/2'' 3/4'' nap synthetic roller (for masonry)
- If using an airless spray gun:
 - o Recommended back rolling
 - o Pressure: 2000 psi
 - o Tip: .025 in, minimum
 - o Must remove filters from spray gun AND pump manifold

FOR A VELVETY / SUEDE TEXTURE:

- Alkemis Interior Mineral Wall Paint
- Nylon/polyester brush (2 2.5" angled brush for cutting in)
- Block / masonry brush (5 7" wide)
- Drop cloth
- Painter's tape
- Large mixing bucket (2 5 gallon)
- Large paint tray (18 22")
- Spray bottle with water
- Measuring cup
- Power drill with <u>paddle mixer attachment</u> (if you do not have a paddle mixer, please stir as thoroughly as possible by hand with stir sticks)
- If using a roller, use a 3/8'' nap synthetic roller (for drywall) or a 1/2'' 3/4'' nap synthetic roller (for masonry)
- If using an airless spray gun:
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PRODUCT DESCRIPTION

ALKEMIS is "the World's First Wellness Paint"—bringing nature and design together to create healthier, more intentional interior spaces.

As one of the only <u>Cradle to Cradle Certified®</u> paints in North America, Alkemis is ethically produced to help customers breathe easier and live more harmoniously.

In addition to being C2C Certified®, Alkemis Paint is one of the only paint companies in the US that fulfills all five covenants of the Mindful Materials Common Materials Framework and the American Institute of Architects Materials Pledge, a nationwide initiative that has been signed by over 175 architectural firms. Due to Alkemis' stringent environmental standards, the products are contributory to LEED Certification Points, WELL Building Standard Points and the United Nations Sustainable Development Goals, and are certified by Parsons Healthy Materials Lab, meeting their rigorous product evaluation requirements.

Formulated using sustainable raw materials and clear quartz as its foundational layer, proprietary mixes of artist-quality pigments and earthen minerals (including hematite, goethite and chromite) are then added to create a high-performing interior paint that supports a holistic lifestyle.

The omission of plasticizers means that Alkemis products are 100% water vapor-permeable; consequently, mold growth on walls decorated with Alkemis Paint is virtually impossible. Thanks to the groundbreaking mineral binder (which forms a permanent chemical bond between the paint and the underlying substrate), Alkemis Paint is as indestructible as stone and in most cases, will typically give 20+ years of satisfactory performance before repainting is necessary (far exceeding the life cycle of traditional latex or acrylic paints).

Alkemis paints are unique in that they are free from synthetic pigments, hazardous organic pollutants (HAPs), volatile organic compounds (VOCs), plasticizers/phthalates, preservatives, solvents, biocides, and alkylphenol ethoxylates (APEs)—making the product safe for all living beings. The manufacturing process is also 100% emission-free.

APPLICATION USES

Suitable for residential and commercial applications.

- Recommended for walls and ceilings of:
 - o previously painted latex or acrylic surfaces
 - o drywall
 - o plaster
 - o brick & masonry
 - o concrete & concrete block
 - o stucco
 - o non-ferrous metal
 - o low-traffic wood trim & molding
- NOT recommended for:
 - o glossy paints or varnish
 - o floors
 - o high-traffic wood cabinetry or doors
 - o ferrous metal
 - o plastic surfaces

- The product is high hiding, even in dark, deep or vivid colors and provides one coat coverage on most smooth surfaces.
- Alkemis Interior Mineral Paint is self-priming and may be used over previously painted latex or acrylic surfaces without primer.
- <u>Alkemis Interior Mineral Primer</u> is recommended for NEW drywall and masonry, or if you are painting over a very dark or uneven surface.

PRODUCT PROPERTIES

Alkemis Interior Mineral Paint is formulated with only natural mineral binders, fillers and pigments.

PERFORMANCE BENEFITS

- Hand-crafted
- Made to order
- Self-priming
- Easy application
- No special equipment or training required
- One coat coverage on most surfaces
- Velvet matte finish with high luminosity & light reflective value
- Artist-quality crystalline pigments
- Breathable / vapor permeable
- Improves indoor air quality
- Quick drying
- Non-film-forming (won't ever peel)
- Non-flammable & non-combustible (Class A ASTM E 84 fire rating, corresponding to DIN 4102-A2, certified)
- Lightfast / UV stable (will not fade)
- Abrasion & scrub resistant (resistance per ISO 11998 = Class 1, best in class)
- Water repellent
- Anti-static (surfaces stay clean longer)
- Forms a secure, insoluble bond between the paint & the underlying substrate
- 20+ years of satisfactory performance before repainting is necessary
- Macro-fill technology for outstanding hiding & final appearance

HEALTH BENEFITS

- All-natural
- Non-toxic
- Zero VOC (ASTM D6886 < 1 g/liter)
- Resistant to mold, algae and fungi growth (certified resistance to fungi)
- No odor or off-gassing
- No solvents, plasticizers or phthalates
- No alkylphenol ethoxylates (APEs), hazardous organic pollutants (HAPs), perfluoroalkoxies (PFAs), preservatives, fungicides or biocides
- No synthetic pigments or chemical colorants
- Well-suited for allergy sufferers and sensitive/immunocompromised groups
- Functional wellness pigments (including clear quartz, hematite, goethite and chromite)
- Hygienic due to its high pH (pH Value @ 20°C = 11)

ENVIRONMENTAL BENEFITS

- Cradle to Cradle Certified®
- Contributory to LEED certification points, UN Sustainable Development Goals and all 5 covenants of the AIA Materials Pledge
- Cans are made from steel, which is infinitely recyclable
- Economical: long renovation intervals and long-term savings; minimum maintenance costs due to long-lasting functionality and appearance
- Emission-free: manufacturing sites use renewable energy and short supply chains to improve carbon footprint
- Low-embodied carbon product
- Cans are made from steel, which is infinitely recyclable
- Cruelty-free & vegan
- Women-owned
- Made in USA

TECHNICAL DATA

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Specific Weight = 1.3 g/cm³
pH Value @ 20°C = 11
Gloss at 85° = 2.0 Mineral Matte Flat
Flashpoint = Non-Flammable
Vapor Permeability = 75-85 perms
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VOC (white or tinted) ASTM D6886 = < 1 g/liter Contrast ratio (hiding power) per ISO 6504-3 = Class 1 (best in class) Wet abrasion resistance per ISO 11998 = Class 1 (best in class) All test results performed on 2 coats applied at 300–350 SF/GAL and 14-day cure $\boxed{6}$ 77°F & 50% RH

COLORS AVAILABLE

White and color shades. Custom color matches are available.

ENVIRONMENTAL COMPLIANCE

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CRADLE TO CRADLE® CERTIFIED \sqrt{} UN SUSTAINABILITY GOALS \sqrt{} AMERICAN INSTITUTE OF ARCHITECTS MATERIALS PLEDGE \sqrt{} PARSONS HEALTHY MATERIALS LAB \sqrt{} LEED \sqrt{} WELL \sqrt{} EPA \sqrt{} CARB \sqrt{} SCAQMD \sqrt{} NO PROP 65 INGREDIENTS \sqrt{}
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SPECIFICATIONS/SYSTEMS

For maximum durability on bare and not previously coated surfaces, 2 coats should be applied at recommended coverage rates.

New Drywall or Wallboard

1-2 coats of Alkemis Interior Mineral Primer1-2 coats of Alkemis Interior Mineral Paint

New Concrete or CMU Block

1 coat of Block Filler

1-2 coats of Alkemis Interior Mineral Paint

Unpainted Masonry, Stone or Stucco

2 coats of Alkemis Interior Mineral Paint

New Plaster

2 coats of Alkemis Interior Mineral Paint

Previously Latex or Acrylic Painted Surfaces
1-2 coats of Alkemis Interior Mineral Paint

SURFACE PREPARATION

WARNING! Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.

Remove all surface contamination by washing with an appropriate cleaner, rinse thoroughly and allow to dry. Existing peeling, cracked or uneven paint should be scraped and sanded to a sound surface. Glossy surfaces should be sanded dull.

Stains from water, smoke, ink, pencil, grease, etc. should be sealed with the appropriate primer. Mask, cover and/or tape off to protect surfaces which are not to be coated (e.g., glass, natural stone, ceramics etc.). Any splashes on surrounding surfaces or traffic areas must be cleaned immediately. Do not let paint dry as it will be very difficult to remove.

Drywall

Fill cracks and holes with patching paste/spackle and sand smooth. Joint compounds must be cured and sanded smooth. Remove all sanding dust.

Brick, Masonry, Concrete, Cement, Block

All new surfaces must be cured according to the supplier's recommendations—usually about 30 days. Remove all form release and curing agents. Rough surfaces can be filled to provide a smooth surface.

Plaster and Stucco

Bare plaster must be cured and hard. Textured, soft, porous, or powdery plaster should be treated with a solution of 1 part Fixative (such as Beeck Fixative) and 3 parts water to reduce porosity of plaster. Repeat until the surface is sound. Allow to dry overnight.

Limitations

Do not use Alkemis Interior Mineral Paint on surfaces saturated with salts, where efflorescence is present or MGO wallboards. Do not apply to glossy enamels, or on bare wood or plastic surfaces. Do not use on floors.

APPLICATION

PLEASE READ AND FOLLOW INSTRUCTIONS CAREFULLY!

Alkemis Interior Mineral Paint is easy to apply and requires no special equipment or training.

Mineral paint is very heavy. Please ensure that Alkemis Interior Mineral Paint is stirred very well, as the pigments may have settled during transport!

Boxing paint (combining paint into a larger container) helps prevent shade variations from bucket-to-bucket and on large surfaces.

Interior Mineral Paint may be applied by brush, roller or airless spray.

Mixing Paint

We recommend stirring all containers thoroughly with a <u>paddle mixer</u> <u>attachment</u> on a power drill at a very slow speed. If you do not have a paddle mixer, please stir as thoroughly as possible by hand with stir sticks.

Boxing Paint

Combine multiples paint buckets into a larger container for color uniformity.

Brush

Use a nylon/polyester brush (2 - 2.5'' angled brush recommended for cutting in)

Roller

Use a 3/8" nap synthetic roller (for drywall) or a 1/2" - 3/4" nap synthetic roller (for masonry)

<u>Airless Spray</u>

- Recommend back rolling
- Pressure: 2000 psi

- Tip: .025 in, minimum
- Must remove filters from spray gun and pump manifold

Thinning

Paint can be applied as supplied. Alternatively, up to 10% water may be added to the first and second coat to make it easier to keep a wet edge so you do not get lap marks. Do not apply more than 10% water as it will impact the durability and washability of the surface.

Add: 3 oz. for 1 quart / 1.5 cups for 1 gallon / 5.5 cups for 3.5 gallon

Painting

Cut-in with a nylon/polyester brush. Only cut-in what you can paint within an hour.

Dampen the roller nap with spray bottle to ensure the paint will absorb into the roller evenly. Use a 3/8''-1/2'' (depending on substrate) nap synthetic roller and roll into damp cut-in paint.

Work quickly as paint is fast-drying. Last pass should be from ceiling to floor to even out rollerpattern.

Texture/Appearance

For a uniform matte mineral finish, roll on or spray two coats. Back roll for most even appearance.

For a velvety suede texture, apply the second coat with a block brush in an X pattern (similar to limewash).

First Coat

Apply first coat to cover surface with no runs and allow to dry 2-4 hours.

Topcoat

For best results apply second coat undiluted and allow to dry overnight. There is no recoat window after the first coat has dried. Mineral paints build quickly so avoid build-ups of paint at cut-in junction or overlapping pattern from roller or spray. Final finish should be as even as possible for best results.

Please note: do not "overwork" the paint during application or touch-up. Mineral paints are approximately 40% higher in volume solids than even the highest quality latex/acrylic paint. This translates to high build in a single coat. Overworking or over-application can lead to a difference in layer build-up and texture, which can be noticeable in angled light.

TOUCH UP

Alkemis mineral paints are "dead" flat and exhibit excellent touch-up characteristics. Touch up of mineral paints is very similar in nature to touching up any flat latex or acrylic paint. Use of common "best-practices" for touch up of latex paint can be applied effectively to Alkemis mineral paints. Prepare touch-up paint by stirring completely to ensure the paint is completely homogeneous and all color has been worked back into aged paint. Ideally, touch-up should be done using the same batch as the original paint to minimize the potential for color variations.

Ideally touch-up should be conducted with the same type of applicator as the original mineral paint application. Application equipment can create a unique "texture" which should be reproduced as much as possible. Here a small 3/8" nap roller is used to touch-up a wall where Alkemis Interior Mineral Paint was originally applied by a 3/8" nap roller.



Thin touch-up paint 10% with water before applying. Thinner paint will avoid "build-up" that may occur using the thicker, original paint. Use a damp sponge and moisten the mineral paint immediately adjacent to the touch-up area. This will allow you to paint into a damp edge and not a dry

one. Wet applicator, but do not "saturate" the roller to minimize the film build of the touch-up paint.



Apply touch-up paint as lightly as possible, paying attention not to create "harsh" edges or angular marks. Use only enough touch-up paint to cover the unsightly area. Do not overwork the touch-up paint or you may develop dry edges, which can appear lighter than the original color.



This is perhaps the most critical step. Feather edges of wet touch-up paint from the center of the touch-up area outward in all directions to end with as little paint build as possible. This feathering step will eliminate the

potential of a "ridge" of new, thicker paint forming on the wall and being visible from an angle or in raking light.



This is what the wet touch-up area should look like upon completion of the feathering step. Note mineral paints are darker when wet and dry lighter to match the surrounding dried paint. Anytime the dried paint finish gets wet, as during washing, it naturally darkens, then dries back to the original color.



This is how the touch up area should appear after a successful touch-up.



CLEANING

Interior mineral paints dry to a very hard finish and can be washed effectively to remove surface dirt. Use of mild soap (all-natural dish soap or diluted unscented castile soap) is recommended using non-abrasive media such as a soft sponge or cloth. Additionally, clear vodka can be used on a soft sponge or cloth to remove dirt and scuffs.

Wiping excessively with an abrasive media may "burnish" or polish the matte finish and change the appearance. We do not recommend using magic erasers, as these can burnish the paint finish as well.

APPLICATION CONDITIONS

Apply at temperatures above 50°F and below 86°F.

DRYING TIMES

Drying times are temperature, humidity and coverage dependent.

Touch: 2-4 hours Recoat: 12 hours

SUBSTRATE COVERAGE*

Drywall and Wallboard 275—350 SF/GAL Cast or Pre-Cast Concrete 275—325 SF/GAL

Brick or Stone Masonry 175–225 SF/GAL Plaster and Stucco 150–200 SF/GAL CMU Block (smooth) 100–150 SF/GAL

*Stated values are based on smooth surfaces. Surface texture, porosity, application conditions and type of equipment used will all vary amounts used.

CLEAN UP

Clean spills, spatters, hands and tools immediately after use with soap and warm water. Tools should be kept in the paint material or in water during work breaks.

PACKAGING

1 Quart, 1 Gallon and 3.5 Gallon

STORAGE

Approximately 12 months in tightly closed container under cool, frost-free conditions. Please protect from freezing, heat and direct sunlight.

DISPOSAL

Dispose of completely emptied containers in accordance with local, state and federal waste regulations. Cleaned out containers may be recycled.

SAFETY INSTRUCTIONS. CAUTION! SKIN OR EYE CONTACT MAY CAUSE TEMPORARY IRRITATION. KEEP OUT OF REACH OF CHILDREN

Use proper protective equipment and clothing. Wash hands and skin after handling. Keep container closed when not in use. FIRST AID: If swallowed, give two glasses of water. Do not induce vomiting. Call for medical help immediately. Never give anything by mouth to an unconscious person. In case of skin irritation, consult a physician. In case of contact, immediately flush eyes and skin with plenty of water; get medical help if needed.

The stated values and properties are the result of extensive development work and practical experience. Our recommendations for application, whether given verbally or in writing, are intended to provide assistance in the selection of our products and do not establish a contractual relationship. In particular, they do not release those purchasing and applying our

products from the duty of establishing for themselves, with due care, the suitability of our products for the intended application. Standard building industry practices must be complied with. We retain the right to make modifications to improve the products or their application. The information and recommendations set forth in this Technical Data Sheet are based upon tests conducted by or on behalf of ALKEMIS PAINT. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication.

ALKEMIS PAINT
5150 Broadway St. #471
San Antonio, TX 78209, USA
www.alkemispaint.com
info@alkemispaint.com
tel: (347) 867-8209