



TECHNICAL DATA SHEET

KEIM ECOSIL--ME®

INTERIOR MINERAL SOL SILICATE PHOTOCATALYTIC PAINT

1. PRODUCT DESCRIPTION

KEIM Ecosil-ME is a heavy duty, multipurpose interior silicate paint to DIN EN 13 300 (it also meets the requirements of DIN 18 363, 2.4.1, silicate emulsion paint). With photocatalytic properties it reduces interior VOC's and eliminates odors. It is self-hygienic and will not support the growth of mold, mildew or micro-organisms and does not contain pesticides or biocides. Outstanding application properties and the unique crystalline finish adds depth and dimension to interior walls and ceilings. Ideal for use with chemically sensitive individuals and those desiring an extremely healthy and sustainable paint choice. High vapor permeability allows walls to remain drier for healthier indoor environments. Ecosil-ME will not burn, is a Class A building material and in case of fire will not contribute fuel or noxious smoke.

2. FIELD OF APPLICATION

KEIM Ecosil-ME is particularly suitable for interior walls and ceilings in heavily used areas such as public buildings, hospitals, schools, offices, hotels, restaurants, and food storage areas. Suitable substrates include all mineral plasters, concrete, drywall, and primed and sound existing paints.

3. PRODUCT PROPERTIES

Ecosil-ME uses a water-base potassium silicate binder and is formulated with only mineral fillers and pigments. It is completely natural and has an extremely low odor.

- Ideal in high usage areas—is highly scrub-resistant
- Photocatalytic effect (test report): converts noxious gases and odors to harmless carbon dioxide and water
- Resistant to disinfectants and harsh cleaning chemicals
- Suitable for allergy sufferers (test certificate)

- No solvents added
- Zero plasticizer content
- Safe for foodstuff applications (test certificate)
- Easy to repaint
- Enhanced hiding power
- Non-flammable
- No preservatives added
- Resistant to fungal and mold growth thanks to mineral alkaline nature (test certificate)

Technical data

Specific Weight	1.4—1.7 g/cm ³
Organic content	<5%
Weight per gallon	14.25lbs
pH Value @ 20°C	11
Gloss at 85°	2.0 Matte Flat
Flashpoint	Non-Flammable
Vapor Permeability	75—85 perms
Surface Burning Characteristics ASTM E 84-08	Class A Flame Spread Index = 0; Smoke Developed Index = 0
VOC (white or tinted) ASTM D6886	< 1 g/liter
Contrast ratio (hiding power) (ISO 6504-3)	Class 1 (best in class)
Wet abrasion resistance (to EN ISO 11998)	Class 1 (best in class)
All test results performed on 2 coats Ecosil ME applied at 300—350 SF/GAL and 7-day cure @ 77°F & 50% RH	

TECHNICAL DATA SHEET – KEIM ECOSIL-ME INTERIOR PHOTOCATALYTIC MINERAL PAINT

Color shades

White and light colors only.

Environmental Compliance

EPA	YES
LEED	YES
CARB	YES
SCAQMD	YES
EPD Certified	YES
Nature Plus Certified	YES
UL Greenguard Gold	YES
Cradle to Cradle Certification	YES

*Sustainability Data Sheet Available

4. SPECIFICATIONS/SYSTEMS

For maximum durability on bare and not previously coated surfaces, 2 coats of Ecosil ME should be applied at recommended coverage rates. Surface should be fully coated, with no pinholes, runs or holidays.

New Drywall or Wallboard

Prime: Interior Mineral Primer

1—2 coats Ecosil ME

New CMU Block

1 coat Contact Plus Block Filler (if desired)

1—2 coats Ecosil ME

Unpainted Masonry, Stone or Stucco

Self-priming: 1—2 coats Ecosil ME

New Plaster

Prime: Interior Mineral Primer

1—2 coats Ecosil ME

Previously Latex or Acrylic Painted Surfaces

Prime: Interior Mineral Primer

1—2 coats Ecosil ME

5. 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 or checked 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 acrylic primer/sealer. Recognize that any surface preparation short of total removal of the old coating may compromise the service length of Innostar. Protect surfaces not to be painted (glass, natural stone, ceramics, floors, etc.). Any splashes must be cleaned up, with soap and water, before they dry or become permanent.

Drywall

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

Masonry, Concrete, Cement, Block

All new surfaces must be cured according to the supplier's recommendations—usually about 28 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 KEIM Fixative and 3 parts water. Repeat until the surface is sound. Allow to dry overnight. Stucco should be cured for 10 days.

6. APPLICATION

Mix Ecosil ME completely with a low-speed drill and paddle attachment until homogenous with no streaks of color. Boxing mixed colors maintains color consistency from pail to pail across large surfaces.

TECHNICAL DATA SHEET – KEIM ECOSIL-ME INTERIOR PHOTOCATALYTIC MINERAL PAINT

Innostar may be applied by brush, roll or airless spray.

- Brush - Use a nylon/polyester brush
- Roller - Use 3/8" to 3/4" nap synthetic roller cover
- Airless Spray
 - Pressure: 2000psi
 - Tip: .025 in, minimum

First coat

Apply Ecosil ME as supplied. Allow to dry 12 hours or overnight before recoating.

Topcoat

Apply Ecosil ME as supplied. There is no recoat window after the first coat has dried.

Cutting in: It is best to cut in small areas only that can be painted before the cut-in paint dries completely, usually no more than 1 hour. Each layer of mineral paint is high build. Rolling wall paint over dried cut-in paint can lead to flashing. The double layer of paint, and different textures contribute to flashing potential. Rolling into damp cut-in minimizes flashing.

Touch Up: Use same batch of paint and method of application for touch-up. For best touch-up results, dampening area immediately around touch-up spot. This will help to avoid a dry "edge" which can be visible in glancing light. Thin paint 10% and apply as sparingly as possible feathering touched up paint out and away from damaged area.

Application conditions

Apply at temperatures between 50--86°F.

Drying times

Drying times are temperature, humidity, and coverage dependent.

Touch: 2--4 hours

Recoat: 12 hours or overnight

Coverage*

SUBSTRATE	COVERAGE*
Drywall and Wallboard	300—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 our experience on smooth surfaces. Surface texture, porosity, application conditions and type of equipment used will all vary consumption. Only a test application, using desired mixing ratio and under production conditions will forecast consumption of the system components accurately.

Cleaning

Clean spills, spatters, hands, and tools immediately after use with soap and warm water. After cleaning, flush spray equipment with a compliant cleanup solvent to prevent rusting of the equipment. Tools should be kept in the paint material or in water during work breaks.

7. PACKAGING

Gallon, 4 Gallon

8. STORAGE

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

9. DISPOSAL

Dispose of completely emptied containers in accordance with local, state, and federal waste regulations. Do not pour into drains, waterways, or ground.

HAZARDOUS SUBSTANCE CLASS

N/A

10. LIMITATIONS

Do not use Ecosil ME on surfaces saturated with salts or where efflorescence is present. Do not apply to glossy enamels, or varnished surfaces, plastic, new wood, or floors.

11. SAFETY INSTRUCTIONS

CAUTION! SKIN OR EYE CONTACT MAY CAUSE TEMPORARY IRRITATION

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.

KEEP OUT OF REACH OF CHILDREN

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 aid 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. This edition supersedes all earlier editions.

The information and recommendations set forth in this Technical Data Sheet are based upon tests conducted by or on behalf of KEIM Mineral Coatings. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult <http://www.keim-usa.com/Technical-Data-Sheets> for the latest in product technical information.

