



## TECHNICAL DATA SHEET

# KEIM OPTIL<sup>®</sup> DESIGNER INTERIOR MINERAL PAINT

### 1. PRODUCT DESCRIPTION

KEIM Optil Designer Interior Mineral Paint is a premium silica-sol paint for projects where a durable and discerning appearance is desired. The mineral matte finish creates a “lively” surface with interplay of light, throughout the day. The velvet like matte texture adds depth and dimension to interior walls and ceilings and is particularly appropriate where critical, raking light is present. This paint has no VOC’s, plasticizers or added preservatives or pesticides, is ideal for use with chemically sensitive individuals and those desiring an extremely healthy paint.

### 2. FIELD OF APPLICATION

KEIM Optil is uniquely formulated for use on new or bare, plaster, drywall and wallboard, masonry, concrete and stucco. Thanks to its outstanding product characteristics it is high hiding, even in dark, deep or vivid colors and provides one coat coverage on most smooth surfaces. It may also be used over previously, latex or acrylic painted surfaces.

### 3. PRODUCT PROPERTIES

Optil is based on silica-sol potassium silicate binder and formulated with only mineral fillers and pigments. It is completely natural and extremely low odor. Manufactured in accordance with DIN EN 13 300 (also complies with DIN 18 363, 2.4.1 silicate emulsion paint).

- Intense and lightfast color shades with unique depth of color
- Optimized for application in areas with glancing light
- Abrasion and scrub resistant
- Outstanding hiding and one-coat coverage
- Easy to use—extremely low odor
- Highly vapor permeable
- Incombustible (corresponding to DIN 4102-A2, certified)
- Hinders mold growth (certified resistance to fungi)
- Ecological with very low environmental impact
- Macro-fill technology for outstanding final appearance

### Technical data

Specific Weight	1.3 g/cm <sup>3</sup>
pH Value @ 20°C	11
Gloss at 85°	2.0 Mineral Matte Flat
Flashpoint	Non-Flammable
Vapor Permeability	75–85 perms
ASTM 136-19A Combustibility of Building Materials	Passes Criteria #1—noncombustible material
ASTM E 84-19B Surface Burning Characteristics of Building Material	Passes: Flame Spread = 0
VOC (white or tinted) ASTM D6886	< 1 g/liter
Contrast ratio (hiding power) (to ISO 6504-3)	Class 1 (best in class)
Wet abrasion resistance (to EN ISO 11998)	Class 2
All test results performed on 2 coats Optil applied at 300–350 SF/GAL and 14 day cure @ 77°F & 50% RH	

#### Color shades

White and all colors of KEIM’s Palette exclusiv color collection as well as monochromatic color concentrates. Custom color matches available.

#### Environmental Compliance

EPA	YES
LEED	YES
CARB	YES
SCAQMD	YES
NaturePlus Certificate	YES

**4. SPECIFICATIONS/SYSTEMS**

For proper waterproofing and weather resistant performance, 2 coats of KEIMCONCRETAL-PRO must be applied at recommended coverage rates. Surface should be fully coated, with no pinholes, runs or holidays.

New Drywall or Wallboard

1 coat Soliprim Interior New Construction Primer

1–2 coats Optil

New CMU Block

1 coat Contact Plus Block Filler

1–2 coats Optil

Unpainted Masonry, Stone or Stucco

1 coat KEIM Fixative as a pretreatment (if needed to control dusting) mixed 1:3 parts with water

1–2 coats Optil

New Plaster

1–2 coats Optil

Previously Latex or Acrylic Painted Surfaces

1–2 coats Optil

**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 primer/sealer. Recognize that any surface preparation short of total removal of the old coating may compromise the service length of Optil.

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 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 KEIM Fixative and 3 parts water. Repeat until the surface is sound. Allow to dry overnight.

**6. APPLICATION**

Make sure Optil is completely agitated before use. Use of an electric drill with paddle attachment is recommended. It should be smooth and homogenous with no streaks of color.

Boxing mixed colors: Always box mixed colors to maintain color consistency from pail to pail.

KEIM Optil may be applied by brush, roller 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

KEIM Optil may be diluted up to 10% with water. Allow to dry 12 hours or overnight before recoating.

Top coat

Apply KEIM Optil undiluted. There is no recoat window after the first coat has dried.

Touch Up: Use same batch of paint and method of application for touch-up. For best touch-up results, pre-condition surface by dampening area immediately around touch-up. This will help you avoid a dry “edge” which can be visible in raking light. Thin paint 10% and apply as sparingly as possible feathering touch up out and away from damaged area.

Application conditions

Apply at temperatures above 50 degrees F.

Drying times

Drying times are temperature, humidity and coverage dependent.

	<b>@ 50° F +</b>
Touch:	2–4 hours
Recoat:	12 hours

Coverage\*

SUBSTRATE	COVERAGE*
Drywall and Wallboard	300–350 SF/GAL
Cast or Pre-Cast Concrete	275–325 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 fore-cast consumption of the system components accurately.

### Cleaning

Clean spills, splatters, 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

Quart, Gallon, 2 Gallon and 4 Gallon

## STORAGE

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

## 8. DISPOSAL

Dispose of completely emptied containers in accordance with local, state and federal waste regulations.

### HAZARDOUS SUBSTANCE CLASS

n/a

## 9. LIMITATIONS

Do not use Optil on surfaces saturated with salts or where efflorescence is present. Do not apply to glossy enamels, or on bare wood or plastic surfaces.

## 10. SAFETY INSTRUCTIONS

Provide appropriate protection for surfaces which are not to be coated (e.g. glass, natural stone, ceramics etc.). Any splashes on surrounding surfaces or traffic areas must be rinsed off immediately with plenty of water. Protect the eyes and skin from splashes. Keep out of reach of children.

Product Code: M-SK 01

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. 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.



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