



TECHNICAL DATA SHEET

SOLDALIT®

SOL-SILICATE ALL SURFACE MINERAL FINISH MONOCHROME COLORS

PRODUCT DESCRIPTION

SOLDALIT® Sol-silicate All Surface Mineral Finish is our very best exterior finish for previously painted masonry surfaces and for bare masonry of all types. SOLDALIT uses a proprietary formula combining silica-sol and potassium silicate binders, inorganic mineral pigments and fillers and an acrylate copolymer to form both chemical and mechanical bonds, even on the most difficult to paint substrates, without primer coats. This new-generation mineral silicate paint is ideal for finishing ceramic glazed tile and terra cotta, glass, non-ferrous metals, granite, marble, pebble-dash concrete and previous acrylic or latex painted surfaces. It is also ideal for all masonry surfaces exposed to severe weather conditions. Tenacious adhesion is enhanced with SOLDALIT's nanoparticle technology that allows penetration of even the densest mineral or masonry substrates and provides a mechanical anchor to most existing organic, latex, or acrylic paints that are in sound condition.

SOLDALIT meets all requirements of DIN 18.363, 2.4.1 "silicate emulsion paint".

FIELD OF APPLICATION

SOLDALIT is applied typically as a 2 or 3 coat system and is recommended for new construction and renovation of sound acrylic and silicone resin-based paints, acrylic stucco, terracotta, bare masonry, all types of concrete, stone, and most other mineral substrates. It is ideal for restoration of historic structures and facades due to high vapor permeability coupled with water repellency. It may be applied over polymer modified cementitious patching compounds that are fully cured. Do not use over aged alkyd or oil-based paints, varnish, or lacquer. SOLDALIT is suitable for vertical facade installations and inclined surfaces. Do not use on floors.

PRODUCT PROPERTIES

SOLDALIT protects masonry surfaces from the action of weather and prevents the penetration of atmospheric pollutants. It utilizes only lightfast inorganic mineral pigments and fillers, and colors will not fade, even in harsh U.V. environments. SOLDALIT is available in a smooth or sand texture base.

- Sol-Silicate binder system penetrates masonry and chemically bonds—won't peel or lose adhesion
- Copolymer modification provides mechanical bond to previously painted surfaces (as outlined)
- Lightfast mineral pigments—guaranteed not to fade or lose brilliance
- Apply to a variety of mineral surfaces
- Very water vapor permeable, microporous
- Completely resistant to pollution
- Provides extreme weather resistance and water repellency
- Noncombustible—won't add fuel or noxious smoke in case of fire
- Beautiful, mineral matte finish
- Anti-static, inert finish—won't attract or trap dirt or dust for walls that stay cleaner
- Naturally mold, algae and fungus resistant—no pesticides used

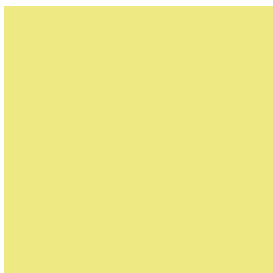
ENVIRONMENTAL COMPLIANCE

UL Greenguard Gold	YES
EPA	YES
LEED	YES
CARB	YES
SCAQMD	YES
Cradle to Cradle Health	Gold
Cradle to Cradle	Silver

Technical data

Density	1.6 g/cm ³
VOC (ASTM D6886)	< 1 g/liter
Organic Content	< 5%
Cured pH value	Approximately 11
Vapor Diffusion	sd (H ₂ O) = <0.01 m
Water Absorption Coefficient	W=0.20 kg/m ² h 0.5 (acc. to DIN EN 1504)
Lightfastness of color pigment (Fb-Code acc. to BFS technical bulletin No. 26)	A1 Best in class rating No color change after 4 years
Vapor Permeability (ASTM E96)	77 Perms
Flashpoint	Non-Flammable
Accelerated Weathering ASTM G154	2016 Hours Passes No change or deterioration of any type
Wind Driven Rain ASTM E514	Passes No water leakage
Mildew Resistance ASTM D3273/D3274	Passes—No fungal growth
Alkali Resistance ASTM D1308	Passes—no visible change at 24 hours
Chloride Ion Permeability	Permeability Class: Very Low
Surface Burning Characteristics ASTM E 84-08	Class A Flame Spread Index = 0; Smoke Developed Index = 0
Gloss at 85° ISO 2813	0.5 Mineral Matte Flat
All test results performed on 2 coats Soldalit applied at 300—350 sf/gallon	

Colors:
Interior/Exterior single chroma mineral oxide colors.



9001S Titanium Yellow



9002S Yellow Oxide



9003S Red Oxide



9004 Umbra



9005 Green Oxide



9006 Ultramarine Blue



9007 Brown Oxide



9008 Black Oxide



9009S Cobalt Blue



9010S Dark Red Oxide



9011S Orange Oxide



9012S Chrome Green

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BOX COLORED PAINT

To ensure consistency of color on large areas, all colored paint should be thoroughly mixed with a power drill and paddle for 1—3 minutes. Box paint together in larger containers and remix. Continue boxing and mixing for consistent color.

SPECIFICATIONS/SYSTEMS

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

Concrete and cementitious patches (all types)

Pretreat: Keim Heavy Duty Cleaner (if needed)
1 coat SOLDALIT diluted 10% with Soldalit Dilution
1 coat SOLDALIT as supplied

CMU Block

1 coat Contact Plus Grob Block Filler (as desired)
1 coat SOLDALIT diluted 10% with Soldalit Dilution
1 coat SOLDALIT as supplied

Masonry (brick and stone) and stucco

Pretreat extremely porous surfaces (if needed):
Soldalit Dilution (mixed 1:3 with water)
1 coat SOLDALIT diluted 10% with Soldalit Dilution
1 coat SOLDALIT as supplied

Previously Painted Mineral Surfaces

1 coat SOLDALIT diluted 10% with Soldalit Dilution
1 coat SOLDALIT as supplied

Hard, Glossy Mineral Surfaces and Terracotta

Scuff sand or abrade glossy surfaces (if needed)
1 coat SOLDALIT diluted 10% with Soldalit Dilution
1 coat SOLDALIT as supplied

Added Water Repellency (on any mineral surface)

Pretreat: Silan 100 Silane Water Repellency applied in multiple coats as needed to saturate surface. CRITICAL RECOAT: Apply first coat of Soldalit within 4—8 hours. DO NOT ALLOW SILAN 100 TO DRY COMPLETELY.

1 coat SOLDALIT diluted 10% with Soldalit Dilution
1 coat SOLDALIT as supplied

Patched, Cracked and Irregular Mineral Surfaces

1 coat of SOLDALIT Sand Texture Base (Grob)* diluted 10% with Soldalit Dilution
1 coat of SOLDALIT as supplied

*Texture base is designed to provide a more uniform final appearance by adding a slight sand texture and can help fill-in cracks and voids up to 1/16" wide and deep. It is several shades lighter than the final color to allow for full coverage of finish. The maximum particle size is 0.5mm quartz granules.

SURFACE PREPARATION

The substrate must be sound, solid, dry, clean, and free of dust, grease, oils, salts, moss, algae, and other substances that would prevent penetration and bonding. Old oil-based coatings, loose substrate layers and loose latex or acrylic layers must be removed. Repair damaged areas as needed before painting. Clean mineral surfaces as needed with KEIM Heavy Duty or Light Duty Cleaner or KEIM Bio Cleaner.

Soft, porous, or friable mineral surfaces, where substrate porosity is variable or aged existing mineral coats may be stabilized and consolidated by pretreatment with SOLDALIT Dilution. Mix 1 part Dilution with 3 parts fresh water and apply to porous surface to saturation. Allow surface to dry 12 hours before proceeding.

APPLICATION

SOLDALIT may be applied by brush, roller, or airless spray.

- Brush - Use a nylon/polyester brush
- Roller - Use a ½" to ¾" nap synthetic roller cover
- Airless Spray
 - Pressure: 3000 psi, minimum
 - Tip: .035 in
 - Remove filters from gun and pump, use 30 mesh filter on siphon tube only

First coat

SOLDALIT may be diluted up to 10% with Soldalit Dilution depending on the substrate porosity or to slow down dry in hot conditions. Allow it to dry 12 hours or overnight before recoating.

Topcoat

Apply SOLDALIT undiluted, as supplied. There is no recoat window after the first coat has dried.

NOTE: For extreme weather conditions or critical, intensive color shades it is recommended to apply a three-coat system.

Application conditions

Ambient and substrate temperature: 40°F and rising and below 95°F. Do not apply in direct sunlight or on sun-heated substrates. Protect coated surfaces from direct sunlight, wind, and rain during and after application for a minimum of 12 hours.

Drying times

Drying times are temperature, humidity, and coverage dependent.

	@ 40-50°F	@ 50°F +
Touch:	4--6 hour	2--4 hours
Recoat:	24--48 hours	12 hours

Coverage

SUBSTRATE	COVERAGE*
Cast or Pre-Cast Concrete	275—325 SF/GAL
Fiber Cement Siding	275—325 SF/GAL
Brick and Masonry	225—275 SF/GAL
CMU Block (smooth)	100--150 SF/GAL
CMU Block (split faced or fluted)	50—75 SF/GAL
Portland Stucco	150—200 SF/GAL

*Stated values are based on our experience with a smooth finish. Surface texture, porosity, application conditions and type of equipment used will all vary consumption. Only a test application under pro-duction conditions will forecast consumption of the system accurately.

Clean Up

Clean tools immediately after use with water. Tools should be kept in the paint material or in water during work breaks.

This product may permanently etch and irreversibly bond to mineral surfaces it is splashed onto including concrete, masonry, glass, and metal. Clean spills, overspray, etc. immediately with soap and water.

Mixing with other products

To maintain the specific features of SOLDALIT and the related system products, they must not be mixed with other products or additives, nor must they be diluted with water.

PACKAGING

Quart, Gallon and 4 Gallon

STORAGE

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

DISPOSAL

Dispose of completely emptied containers in accordance with local, state, and federal waste regulations. Any residues must be emptied out of containers before recycling.

HAZARDOUS SUBSTANCE CLASS

n/a

TRANSPORT HAZARD CLASS

n/a

SAFETY INSTRUCTIONS

CAUTION! SKIN OR EYE CONTACT MAY CAUSE TEMPORARY IRRITATION

Use proper protective equipment and clothing. Avoid breathing spray mist. Open windows and doors or use other fresh air supply during application indoors or wear respiratory protection (NIOSH Approved). 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. If inhaled, remove to fresh air. If breathing is difficult, give oxygen. 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. This edition supersedes all earlier editions.

