Edison Coatings, Inc.

EverKote 300

REACTIVE INORGANIC MINERAL PAINTS & STAINS

DESCRIPTION:

EverKote 300 mineral coatings are waterborne inorganic paints and stains based on reactive potassium silicate binders. Potassium silicate masonry paints have been in use for over a century to provide extremely durable, breathable color coatings on all types of mineral-based substrates, including stone, masonry, concrete and cement plaster (stucco).

Two standard grades of are available:

GRADE	DESCRIPTION
PENETRAL	Low-Viscosity, Opaque or Semi-Transparent Stains
PATINAR	Medium Viscosity, Opaque Coatings

EverKote 300 coatings are stabilized, reactive formulations which form chemical bonds within the substrate to provide long term durability.

HOW DO *EverKote 300* POTASSIUM SILICATE COATINGS WORK?

EverKote 300's potassium silicate binder is produced by fusing potassium carbonate with silica at high temperature. The result is a soluble silicate, which can be dissolved in water to produce a liquid "waterglass".

Although soluble silicates can be air dried to form a film, maximum water resistance, bond strength and long-term durability depend on chemical reactions with the substrate or added catalysts. Substrates with which silicates can react include:

- ☑ Calcium salts, typically found in portland cement, lime and calcareous natural stones such as limestone and marble
- ☑ Silica, typically present in siliceous sandstones, silica sand, mortars, stucco, concrete and glass
- ☑ Ceramics, including brick and terra cotta
- ☑ Iron, aluminum and other metals

When ***EverKote 300*** is applied to suitable substrates, it penetrates and reacts to form a hard, insoluble silicate.

PHOTO: EverKote 300 was applied to this Historic Landmark building as part of the building's restoration program.

When applied to materials containing portland cement, the silicate reacts with incompletely hydrated cement particles, converting unreacted calcium hydroxide [$Ca(OH)_2$ or hydrated lime] to hard calcium silicate hydrates.

APPEARANCE:

EverKote 300 is available in nearly 900 standard colors. Custom color-matching is also available. Product dries to a flat (matte) finish.

PROPERTIES

- ☑ Exceptionally Breathable
- ☑ Moisture and Immersion Resistant
- ☑ Does not contribute to growth of mold, algae or mildew
- ☑ Improves resistance to certain chemicals
- ☑ Durable and UV-Resistant; Does not yellow or peel
- ☑Heat Resistant

APPLICATION

Always pre-test a small, inconspicuous area for color, adhesion and compatibility prior to large scale application. Allow up to 7

PROPERTY	RESULTS	COMMENTS
Direct Tensile Bond Strength	>410 psi @ 48 hrs. cure	No adhesive failure; 100% cohesive failure in substrate
Flexural Bond Strength	>1440 psi @13 days cure	No adhesive failure; 100% cohesive failure in substrate
Water Vapor Transmission, ASTM E96	>99%	Results expressed as percentage versus uncoated control
Accelerated Weathering, ASTM G53	1000 hrs., no cracking, peeling, yellowing, swelling or checking	Stable

days' cure before judging final color. Previous treatments, water repellents, chemical cleaning agents, and substrate composition can affect mineral coating reaction rates and appearance. Mineral coatings are natural materials and some color variation or shading is normal. Colors may lighten somewhat with aging.

EverKote 300 may be applied in one or two coats. The first coat may be thinned with up to 10% demineralized or distilled water, followed by one undiluted ***EverKote 300*** top coat. On rough or porous substrates, topcoats may also be diluted to maintain the target coverage rate of 200 sq.ft./gallon. **Do not over-apply.**

Surface Preparation

Surfaces to be treated must be clean, dry and free of dirt, dust, form oil, efflorescence, previous coatings (other than existing cement or silicate mineral coatings) and other materials which may hinder penetration and/or reaction with the substrate. Previous cementitious and silicate mineral coatings must be spot tested for compatibility in an inconspicuous area prior to large scale application. Highly porous substrates may require consolidation prior to coating.

CAUTION: Protect glass and other surfaces not intended to be coated by covering completely with polyethylene, sealing the edges continuously with heavy moisture resistant tape. Unprotected glass and other surfaces may be etched or "frosted" by contact with silicate coatings. This is a chemical reaction, which cannot be reversed by cleaning.

New Concrete, Stucco and Mortar must be allowed to cure for a minimum of 7 days prior to mineral coating application. For maximum effectiveness, surfaces must be sufficiently dry to allow the mineral binder to penetrate porous substrates. Allow extended drying time as required under cool, damp conditions.

Factors Affecting Penetration Depth

While penetration depth may not be critical for many architectural applications, greater penetration has a significant effect on strength and durability of applications on cement-based substrates, porous stone and traffic surfaces. Penetration is influenced by substrate pore structure and permeability, moisture content and surface preparation.

Application:

Mix product thoroughly before use as contents may settle upon standing. Re-mix periodically during use to maintain consistent color and saturation.

Apply ***EverKote 300*** by brush, roller or airless spray. Apply as a continuous film and do not attempt to overbuild the wet film to fill surface imperfections.

Allow first coat to dry for a minimum of 6 hours before top coat application of ***EverKote 300***.

Protection & Curing: Protect coated surfaces from rain or other water exposure for at least 24 hours after application. Full cure requires at least 7 days, and colors may change in hue or intensity during this period. Do not expose treated surfaces to acid cleaners, hot water or steam cleaning.

COVERAGE:
Coverage rates vary based on surface texture and porosity. Adjust viscosity or application methods as required to maintain nominal coverage rate of 200 sq.ft./gal. per coat.

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