



KEIM Concretal-Lasur Application Guide

KEIM Concretal-Lasur is a premium, protective sol-silicate thin-layer mineral concrete stain designed for walls and soffits. It is strictly not a floor coating. Unlike conventional film-forming paints that trap moisture, Concretal-Lasur penetrates the surface and chemically bonds (silicifies) directly to the concrete. This preserves the natural mineral character and texture of fair-faced concrete while hiding colour variations, structural repairs, and surface blemishes.

To ensure the KEIM Australia warranty, the following application methods must be strictly followed in accordance with the current Technical Data Sheet (TDS).

1. System Specifications & Opacity Levels

KEIM Concretal-Lasur can be specified across a wide range of finishes, from completely opaque down to highly translucent glazes:

- **Opaque Finish:** Provides a uniform, structure-preserving thin layer with full colour coverage.
- **Translucent / Low-Pigmentation Finish:** Maintains the raw aesthetic of exposed concrete while subtly balancing surface defects.
- **Mixing:** KEIM Concretal-Lasur is available in two supply formats: (1) as a kit with heavy mineral pigment supplied separately from the liquid binder; combine both components on site before application; or (2) as pure pigment only, which must be mixed with KEIM Concretal Fixative (the dilution), acting as the liquid binder, to create the working product. In both formats, KEIM Concretal Fixative is the sole approved component for mixing and thinning. Transparency and colour depth are adjusted by the ratio of Fixative added. Never use water.

Coat build-up

Finish	Coat 1 (primer coat)	Coat 2 (final coat)	Guide quantity
Opaque	1 L Concretal-Lasur + 0.2–0.5 L Concretal Fixative (depending on absorbency)	Concretal-Lasur undiluted	Approx. 0.25 L/m ² Lasur + 0.04 L/m ² Fixative for both coats
Translucent glaze	Diluted with Concretal Fixative to the ratio set in the site trial	Same ratio as the trial	Set by site trial

Exterior work: two glazing coats are required for weather resistance. A single coat is not approved for the warranty.

2. Mandatory Site Trials

- **Trial Area Requirement:** Concrete varies significantly in colour and porosity. The applicator must conduct a site trial on a representative area to determine exact consumption rates per square metre and lock in the required dilution ratio.
- **Placement:** Select a trial zone that does not form part of the high-visibility finished facade, as fully cured mineral stains cannot easily be removed.

3. Concrete Surface Preparation & Cleaning

The material relies entirely on open surface porosity to achieve its permanent mineral bond.

- **Concrete Maturity:** Newly cast concrete surfaces must be allowed to cure for a minimum period of 28 days prior to any decoration or priming. If application is required before the 28-day threshold, the concrete moisture content

must be measured and confirmed below 4% at a depth of 5mm before proceeding.

- **Release Agent Removal:** All shuttering oils, grease, contaminants, or formwork release agents must be completely removed using a suitable concrete cleaner or a degreasing wash. Trial the cleaner on a small, hidden area first. Follow the cleaner manufacturer's dilution and dwell time; do not leave acid-based cleaners on fair-faced concrete for extended periods, as they can etch and blotch the surface. Pressure wash thoroughly with clean water until the rinse water runs clear and neutral.
- **Surface Mark Erasure:** All spray paint, graffiti, pencil/pen marks, and construction notations must be completely removed. Because the system is a translucent colourwash, any remaining surface marks will permanently show through the finished coating.
- **Gloss Skins:** Any gloss or shiny surfaces caused by smooth formwork must be thoroughly flatted down using sand or emery paper to create a mechanical key.
- **Unsuitable Substrates:** Do not apply over elastomeric (plasto-elastic) coatings, salt-efflorescing substrates, horizontal or sloping surfaces exposed to weather, wood, or saponifiable coatings. All organic (acrylic) coatings must be fully removed.
- **Hazard Warning:** Extreme caution must be exercised during the removal of legacy pre-1960s coatings, as they may contain lead.

4. Substrate Porosity, Moisture, & Patching

- **Water Absorption Test (The Runners Test):** Mist water onto the dry concrete using a spray bottle to evaluate substrate absorbency:
 - **High Absorption:** If water runs down in short, thick tracks, the surface is highly porous. Apply an initial primer coat of undiluted KEIM Concretal Fixative (neat, not mixed with pigment) by brush, approx. 0.15 L/m², to equalise porosity. Do not use the tinted, diluted glaze to adjust substrate absorbency.
 - **Low/Normal Absorption:** If water runs down in long, thin tracks, absorbency is within normal parameters. Proceed directly to the first coat.
 - **Non-Absorbent:** If water beads on the surface, a hydrophobic sealer is present and must be mechanically removed before application. *Exception:* where KEIM Silan-100 has been applied deliberately as a water-repellent pre-treatment, beading is expected; apply Concretal-Lasur 4 to 24 hours after the Silan-100.
- **Moisture Content:** KEIM systems must only be applied onto wind-dry surfaces where the internal moisture content (to a depth of approximately 5mm) is no greater than 4% by volume. High moisture blocks penetration, leading to product failure or flaking.
- **Defect Patching:** Keep physical patching and filling to an absolute minimum. Small pinholes do not require filling. For larger voids, do not fill beyond the perimeter of the hole or feather-out over a broader area. Smaller patches remain less visible on the base concrete.
- **Patching Compound Compatibility:** Cementitious mineral repair mortars are strongly preferred as they remain open and porous once cured, allowing the stain to penetrate evenly. If an alternative compound must be used, conduct a mandatory on-site trial: apply the compound to a representative test area, cure fully, then apply Concretal-Lasur at the standard rate. Inspect the dried result for colour uniformity and penetration; any flat, uncoloured, or sealed patch indicates an incompatible compound and it must not be used. Film-forming or acrylic-based fillers are high-risk in this application as they tend to seal the substrate and block the stain from penetrating, producing permanently visible dead spots.

5. Mixing and Agitation Controls

- **Pigment Transfer:** To ensure even colour distribution, transfer all pigment paste into the mixing bucket. Rinse the inside of the pigment container with a portion of the Concretal Fixative to ensure all material is recovered.
- **Settling Warning (CRITICAL):** Concretal-Lasur possesses a low viscosity similar to milk. Because mineral pigments are heavy, they begin to settle into a paste at the bottom of the tray or bucket shortly after mixing. The mixed material must be stirred thoroughly and regularly during application. Do not use the material if the pigment has settled out.

- **No Water Thinning:** The system cannot be thinned or extended with water. Water is to be used strictly for pre-wetting concrete and cleaning wet tools.

6. Application Methods & On-Site Techniques

Environmental Constraints

- Ambient and concrete surface temperatures must be between 5°C and 30°C during application and drying.
- Do not apply in direct rain, if rain is imminent, or on sun-heated substrates. Apply systematically in the shade to maintain correct open working time and avoid overlapping marks. Protect fresh work from direct sun, wind and rain.

Brush Application (standard for exterior glazing coats)

- Outdoors, apply the glazing coats with a quality glaze brush in a criss-cross pattern, working the material multi-directionally across the surface. Brush application is also the recommended method for touch-up work, as it is the easiest technique to blend seamlessly with existing coats.

Roller Application

- **Equipment:** Use a high-quality short to medium-nap roller.
- **Technique (Criss-Cross):** Roller apply the material in a random, multi-directional criss-cross pattern. Once spread evenly, lightly lay off vertically to pick up excess material, eliminate pooling, and prevent visible overlapping marks. When applying by roller or airless sprayer, the wet coat should be immediately spread and laid off with a clean brush to achieve even distribution.
- **Bottom-Up Rule:** On vertical walls, always work from the bottom upward. Runs or drips running down onto a bare, dry wall absorb immediately and create dark, permanent streaks; working upward allows runs to merge cleanly into wet material.
- **Wet Edge & Breaklines:** Always work to a continuous wet edge. Large sections must be squared off and terminated only at a natural architectural breakline, day joint, or corner. KEIM Concretal-Lasur must not be cut in at any time.

Airless Spray Application

- **Hose Requirement (CRITICAL):** A brand-new or dedicated spray hose must be used. The high alkalinity of mineral products will detach dried acrylic paint residue from old hoses, causing severe, continuous nozzle blockages.

Product	Nozzle	Filter	System pressure (gun closed)
KEIM Concretal-Lasur	≥ 512 (50° fan, 0.012" orifice) or larger	30 mesh gun filter	> 170 bar

- **The Mandatory Lay-Off Pass:** If sprayed, the coating must be laid off immediately to physically work the mineral stain into the concrete pores and remove pooling.

7. Drying, Curing, & Asset Protection

- **Drying Delays:** Allow a minimum of 12 hours between coats of Concretal-Lasur (at 23°C and 50% RH). The system must properly chemically bond to the substrate before receiving subsequent coats, even if the surface appears dry to the touch within a few hours.
- **Drying Appearance:** Mineral coatings dry unevenly and lighten significantly as they cure. DO NOT touch up or over-roll the stain during the drying process, as this will permanently create localised dark patches.
- **Adjoining Glass Protection:** All adjoining surfaces (glass, metal, ceramics, natural stone) must be fully protected. Silicate splashes have a slight chemical etching effect on glass if allowed to dry hard. Remove any accidental splashes immediately using plenty of clean water.

8. Quality Assurance & Warranty Checklist

To validate the warranty, the following project documentation must be retained:

- **Invoices:** Formal proof of purchase from KEIM Australia.
- **Batch Records:** Logged batch numbers from all pigment containers and Concretal Fixative drum lids.
- **Site Log:** Detailed records of weather conditions, moisture meter readings (confirming below 4%), substrate preparation and cleaning steps, site trial dilution ratios, number of coats, and confirmation of dedicated spray hoses.
- **TDS Verification:** Signed declaration confirming the project fully adhered to the recommendations within this guide and the current KEIM Concretal-Lasur Technical Data Sheet.

9. Digital Application Support & Calculators

- **Online Resources:** Further application guides, mixing guides, consumption tools, and estimators:
keim.com.au/calculators

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Revision October 2026. Read together with the current KEIM Technical Data Sheet. Where this guide and the TDS differ, contact KEIM Australia before proceeding.