



KEIM Innostar: Project Application & Maintenance Method

KEIM Innostar is a premium interior sol-silicate mineral paint system. It features exceptional hiding power, ultra-low VOCs, and high breathability. Unlike standard acrylics that sit on the surface, KEIM Innostar chemically bonds to mineral substrates, providing a durable, dead-flat finish.

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

1. System Specifications

KEIM Innostar is a thin-film mineral coating and does not physically fill or bridge surface texture differences.

- **New / Bare Plasterboard (High Absorption Inconsistency):** Due to the extreme porosity differences between plasterboard paper and patched jointing compounds, an equalising base is strictly required. Apply ONE coat of KEIM Innoprim, followed by ONE coat of KEIM Innostar. (A second topcoat is often required on heavily patched walls to build a uniform roller stipple over the smooth jointing compound.)
- **Deep / Dark Colours (PG 2 & PG 3 Warning):** When specifying deep, intense, or highly pigmented colour shades falling within Price Groups 2 and 3, a third system coat may be required. This extra layer ensures absolute opacity, colour consistency, and a shadow-free, dead-flat finish in spaces exposed to critical or glancing light.
- **The Coat Count Reset Rule (Remedial Patching):** If trades undertake remedial plastering, patching, or sanding after the first coat of KEIM has been applied, the original substrate has been destroyed. In these areas, the coat count immediately resets to zero. The full system must be reapplied corner-to-corner over the new plaster to maintain uniform texture and warranty validity.
- **Surfaces with Consistent Absorption:** On uniform bare substrates without significant variations in surface absorption, apply ONE to TWO coats of KEIM Innostar depending on the desired finish.
- **Repaints / Previously Painted Surfaces:** Over existing, sound interior coatings, ONE coat of KEIM Innostar is typically sufficient to achieve full coverage.

Product	Guide quantity per coat	Packs	Recoat after
KEIM Innostar	Approx. 125 mL/m ² (8 m ² /L)	12.5 L · 5 L · 2.5 L	6 hours
KEIM Innoprim	Approx. 150 mL/m ² (6.7 m ² /L)	See datasheet	6 hours

Quantities are for smooth surfaces. Confirm on a test area before ordering.

2. Substrate Assessment & Preparation

The applicator must verify the condition of the substrate to ensure the mineral bond forms correctly.

- **Plastering Standards (AS/NZS 2589):** For walls and ceilings subjected to glancing or critical side-lighting, a Level 5 finish (full skim coat or spray surfacer) is mandatory. KEIM Innostar will faithfully telegraph physical texture differences between glassy-smooth jointing compound and paper facing; applying paint over a Level 3 or Level 4 finish in critical lighting areas voids claims regarding paint opacity or banding.
- **General Condition:** Surfaces must be sound, dry, and completely free of dust, grease, and oil.
- **Repairs & Jointing:** Lightly sand all jointing and patching compounds smooth using 120 to 180-grit sandpaper. This includes all standard gypsum, vinyl, or polymer-based fillers. Gypsum fillers need no separate pre-treatment once sanded and dusted off.
- **Sanding (Powdery) or Highly Absorbent Surfaces:** Apply a primer coat of KEIM Innoprim before KEIM Innostar.

- **Dust Removal (CRITICAL):** Vacuum the walls to remove heavy dust from sanding, then wipe the entire surface with a clean, slightly damp microfibre cloth. Silicate paints will not bond to residual dust from any patching compound; thorough vacuuming and wiping is essential regardless of the compound used. If using a non-standard patching product, conduct a small trial coat in an inconspicuous area and confirm even sheen, colour, and adhesion before proceeding.
- **Gloss Surfaces:** Any gloss, satin, or shiny surfaces should be mechanically sanded back to a dull finish using sandpaper or an abrasive pad to create a sound physical key. Where a sound, intact acrylic or organic surface cannot be fully sanded, a cross-hatch adhesion trial is required.
Cross-Hatch Adhesion Trial (painting over acrylic or organic surfaces): (1) Select a representative 300mm × 300mm test area on the existing surface. (2) Clean thoroughly and apply KEIM at the standard rate without dilution. (3) Allow to cure for a minimum of 24 hours. (4) Using a sharp blade, score a 6 × 6 grid of cuts (10mm spacing) through the full KEIM film down to the existing surface. (5) Apply a strip of high-tack tape (e.g. 3M 610 or equivalent) firmly over the scored grid, then pull off sharply at 60°. (6) If fewer than 5% of the scored squares show any delamination, adhesion is acceptable and full application may proceed. If significant areas pull away, the existing coating must be mechanically abraded back to a dull, sound key before application.
- **Hazard Warning (Lead Paint):** Extreme caution must be exercised during the removal of pre-1960s coatings, as they may contain lead.

3. Environmental Constraints

- **Temperature:** Ambient and substrate temperatures must be at least 5°C during application and drying, and no higher than 30°C for KEIM Innoprim. KEIM Australia recommends staying within 5–30°C for the whole system.
- **Moisture:** Surfaces must be wind-dry, with a moisture content below 8% by weight (5% or less is ideal). Do not paint at 8% or above: find and fix the source of moisture first.

4. Roller Application & Dilution

- **Equipment:** Use a high-quality, 12mm–15mm short to medium-nap polyamide roller. Do not use foam rollers.
- **First Coat Dilution:** Apply KEIM Innostar undiluted, or diluted with a maximum of 5% water if required to help manage high substrate absorbency or open time.
- **No Fixative Thinning:** Never thin KEIM Innostar with a fixative or binder fluid. Where the surface is sanding or highly absorbent, prime with KEIM Innoprim instead.
- **Top Coat Dilution:** Apply the final finishing coat of KEIM Innostar completely undiluted.
- **Technique (Cross-Hatch):** Apply the material using a true cross-hatch method, rolling in all directions (up, down, diagonally, and across). This multi-directional application randomly distributes the silicate binders and pigments, eliminating straight roller tracking or banding.
- **Wet Edge & Lay-Off:** Maintain a wet edge at all times to prevent visible joints. After working the paint in all directions, perform a final, very light lay-off by rolling gently in one continuous direction (ideally towards the primary light source) to unify the surface texture.
- **STRICTLY NO SPOT-PRIMING:** Due to the tight-curing nature of thin-film mineral paints, spot-priming or localised touch-ups over dry patches with a roller will create a raised, permanent "halo" that will flash through the final finish. If remedial patching occurs, the entire wall must be recoated from corner to corner to maintain a uniform physical texture.

5. Airless Spray Application

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

Product	Nozzle	Filter	Settings
KEIM Innoprim	≥ 423 or larger	30 mesh gun filter	System pressure > 90 bar (gun closed)
KEIM Innostar	≥ 421 or larger	30 mesh gun filter	Heat the material to 40°C (in-line heater). Set pressure for an even, tail-free fan.

- **Spray Angle:** The 421 and 423 codes are 40° tips. Use 30–40° tips where the coat is back-rolled. For a sprayed-only finish coat, a wider 50–60° tip with the same orifice gives a more even finish.
- **Back-rolling:** When spraying the first coat over bare substrates, the material must be back-rolled immediately after spraying to ensure it is worked deeply into the pores.

6. Drying & Curing

- **Drying Appearance (Critical):** Mineral paints dry unevenly and will lighten significantly as they cure. DO NOT attempt to touch up or over-roll the coating during the drying phase, as this will disrupt the curing process and create permanent visible defects.
- **Recoat Time:** Allow a minimum of 6 hours between coats (at 23°C and 50% RH). Cooler or more humid conditions, and thicker coats, extend this time.

7. Routine Maintenance & Asset Care

- **Routine Cleaning:** Because KEIM Innostar provides a dead-flat mineral matte finish, walls should be wiped gently with a clean, lightly damp microfibre cloth if cleaning is necessary. Do not scrub aggressively with hard brushes or harsh chemical cleaners.

8. Quality Assurance & Warranty Checklist

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

- **Invoices:** Proof of purchase from KEIM Australia.
- **Batch Records:** Logs of batch numbers from all drum lids (Innostar and Innoprim).
- **Site Log:** Records of interior climate conditions, substrate moisture readings, substrate preparation steps, and application timelines.
- **TDS Verification:** Written confirmation that the project adhered to the recommendations in this document and the current KEIM Innostar / Innoprim Technical Data Sheets.

9. Digital Application Support & Calculators

- **Online Resources:** Project estimators, quantity calculators, and further application tools: keim.com.au/calculators