



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 (less than 1 g/litre), and high breathability (sd-value of ≤ 0.01 m). Unlike standard acrylics that sit on the surface, KEIM Innostar chemically bonds (silicifies) to mineral substrates, providing a flawless, dead-flat finish.

To ensure the KEIM Australia 25-year warranty, the following methods must be followed in accordance with the current Technical Data Sheet (TDS).

1. The System Specifications KEIM Innostar is engineered for maximum opacity and efficiency. However, as a thin-film mineral coating, it does not physically build or fill 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. *(Note: A second topcoat is often required on heavily patched walls or in critical lighting areas to build a uniform physical roller stipple over the smooth jointing compound).*
- **The Coat Count Reset Rule (Remedial Patching):** The specified coat count assumes a finished, ready-to-paint substrate. **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 that do not have significant variations in surface absorption or porosity, KEIM Innostar can be applied directly without a primer. 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 and a flawless finish.

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) & Critical Lighting:** For walls and ceilings subjected to glancing or critical lighting (e.g., large windows, long corridors), a Level 5 finish (full skim coat or spray surfacer) is mandatory prior to painting. KEIM Innostar is a thin-film coating and 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 dry, sound, 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 (such as CSR Gyprock Jointmaster, USG Boral / Sheetrock topping compounds, Knauf jointing cements, Polyfilla, or generic interior filler).
- **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 absolutely will not bond to residual gypsum or vinyl dust.
- **Gloss Surfaces:** Any gloss, satin, or shiny surfaces must be mechanically sanded back to a dull finish to create a sound physical key.
- **Hazard Warning (Lead Paint):** Extreme caution must be exercised during the removal of pre-1960s coatings, as they may contain lead.

3. Application Methods

Environmental Constraints

- Ambient and substrate temperatures must be between 5°C and 30°C.
- Surfaces must be dry with a moisture content no greater than 18%.

Roller Application

- **Equipment:** Use a high-quality, 15mm-20mm long-pile polyamide roller.
- **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 is crucial for mineral paints; it randomly distributes the silicate binders and pigments, completely 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 telegraph through the final finish. If remedial patching occurs, the entire wall must be recoated from corner to corner to maintain a uniform physical texture.

Airless Spray Application Both diaphragm pumps (known for low wear and maintenance) and piston pumps (characterised by high performance) can be used. The following values refer to a specific device type and are intended as a guide.

- **Preparation & Maintenance:** Always test your device with water first, as it is often possible for the ball valves in the suction pipe to become stuck. Clean



the system thoroughly after airless spraying to prevent interruptions during the next use.

- **Hose Requirement:** It is very important to adhere to the minimum hose length specified by the manufacturer, as this also serves to compensate for pulsation. 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.
- **General Nozzle Advice:** In general, make sure you use a nozzle with a wide spray angle, i.e., 50° or 60° to get a nice finish.
- **KEIM Innoprim Settings:** Nozzle: ≥423 | Filter: 30 mesh Pi (Gun filter) | Back pressure: 90 bar | Temperature-controlled injection: 40°C.
- **KEIM Innostar Settings:** Nozzle: ≥421 | Filter: 30 mesh Pi (Gun filter) | Back pressure: 100 bar | Temperature-controlled injection: 40°C.
- **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.

4. Drying and 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.
- **Recoat Time:** Allow a minimum of 6 hours of drying time between coats.

5. Maintenance

- **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.

6. Warranty & TDS Compliance Checklist To validate the warranty, the following documentation must be retained:

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