

Rayolite Installation Guide

Overview

This two-part epoxy adhesive is formulated for the secure installation of raised pavement markers (RPMs) and road studs on asphalt and concrete surfaces. Correct mixing, application, and curing are essential to ensure long service life and road safety.

Always observe traffic control and PPE requirements when installing markers.

Pre-Installation Requirements

Environmental Conditions

- **Temperature:** Do not install if pavement or ambient temperature is below **10 °C** or above **40 °C**.
- **Moisture:** Do not install during rainfall, heavy dew, or when surface moisture is present. Avoid installation within **24 hours of rain** unless surface is fully dry.
- **Surface Condition:**
 - Pavement must be **clean, dry, and free** from oil, dust, curing compounds, loose aggregate, or old markings.
 - For new concrete (<90 days old), remove any curing compound by sandblasting, grinding, or other approved methods.
 - Do not apply over **joints, cracks, seams, or existing pavement markings**.

Traffic Management

- Follow all **traffic control regulations** and establish safe work zones with signage, cones, and flaggers.
- Workers must wear **high-visibility clothing, gloves, and eye protection**.

Mixing Instructions

- **Ratio:** Mix equal parts of **Part A** (resin) and **Part B** (hardener).
- **Tools:** Always use **separate dispensing tools** for each part to avoid contamination.
- **Mixing:** Stir thoroughly until a **uniform grey colour** is achieved with no streaks.
- **Batch Size:** Only mix enough adhesive for **20 minutes of working time** (pot life). Pot life shortens in high temperatures.
- **Storage:** Store unopened components in a cool, shaded area (10–30 °C). Avoid direct sunlight. Shelf life: refer to product label.

Application Steps

1. **Prepare Surface & Marker**
 - Clean pavement with high-pressure air blower or wire brush.
 - Ensure the **underside of the marker is clean and dry**.
2. **Apply Adhesive**
 - Butter the underside of the marker with a sufficient, even layer of adhesive.
 - On coarse or porous surfaces, apply adhesive in **two steps**:
 1. Spread a thin base layer on the pavement to level the surface.
 2. Apply adhesive to the marker base and set in place.
3. **Set Marker in Place**
 - Firmly press the marker onto the pavement surface.
 - A **continuous ring of adhesive** should extrude around the perimeter.
 - Remove excess adhesive with a scraper before cure, especially in front of reflective lenses.
4. **Alignment & Spacing**
 - Ensure correct alignment with lane or road markings.
 - Maintain specified spacing according to project design.
5. **Curing**
 - Allow adhesive to cure undisturbed.
 - Typical cure time: **45–60 minutes** before opening to traffic (longer in cold weather).
 - Do not expose to traffic until adhesive is firm and marker cannot be moved by hand.

Key Points for Success

- Mix in **small batches** to prevent waste and premature curing.
- Always confirm adhesive is a **uniform grey colour** before use.
- Install only under suitable weather and pavement conditions.
- Ensure **full contact and proper squeeze-out** of adhesive for durability.
- Remove all excess adhesive before cure for safety and aesthetics.

Inspection & Quality Control

- **Visual check:** Confirm alignment, full adhesive ring, no voids, and clean lens faces.
- **Bond test:** Randomly twist or pull a marker after cure to verify adhesion.
- **Post-install review:** Re-inspect markers after 24 hours of traffic exposure.

Why use two-part epoxy over other methods

Two-part epoxy is **widely specified by road authorities and contractors** for permanent installation of road markers, particularly on high-volume and high-speed roads. Its popularity comes from the balance of **strength, safety, and long-term performance** it offers compared to other methods.

- ✓ **Strong & Reliable Bond** Epoxy chemically bonds to both asphalt and concrete, giving excellent resistance to shear and pull-out forces from heavy traffic.
- ✓ **Durable in All Conditions** Unlike bitumen adhesives, which may soften in heat, or hot-melt systems that can become brittle in cold, epoxy maintains consistent strength across a wide temperature range.
- ✓ **Controlled Application** With a defined working time (pot life), crews can align and seat markers correctly before adhesive cures, reducing misplacements and failures.
- ✓ **Cold-Applied Safety** Epoxy is applied at ambient temperature, avoiding the risks of propane torches, hot kettles, or molten materials.
- ✓ **Versatile Use** Suitable for both asphalt and concrete, and effective even on textured surfaces when applied correctly.

Safety & Handling

- **Personal Protection:** Gloves, long sleeves, and protective eyewear required. Use respiratory protection in enclosed areas.
- **Spills:** Clean up immediately with approved solvent before curing.
- **Waste Disposal:** Hardened epoxy may be disposed of as non-hazardous waste. Dispose of uncured material per local regulations.
- **SDS:** Refer to the product Safety Data Sheet for full hazard and first-aid information.

Rayolite Pty Ltd

Address: 237-239 Berkeley Rd, Unanderra, NSW 2526

Postal: PO Box 1156, Unanderra, NSW 2526

Phone: [\(02\) 4271 5056](tel:0242715056)

Mobile: [0407 473 889](tel:0407473889) Greg

Mobile: [0468 871 319](tel:0468871319) Leesa

Email: sales@rayolite.com.au

The facts stated and the recommendations made are based upon data appraised in our own laboratories and our own research and that of others. Due to possible differences in specifications, application and interpretation of results, no guarantee can be made of these products and they are sold without warranty, express or implied in law or in fact upon the condition that the purchasers make they own test of the products or samples thereof to determine the suitability of the products for the purchasers intended use. Statements concerning the possible use of products or processes are not recommendations or permission to use the same in a manner that would infringe any patent or to practice as patented invention without a licence.