

INFINITYPAVE

ROX BINDER CONCRETE INSTALLATION GUIDE

Vehicle-Grade Resin Bound System for Concrete

Type: Polyurethane/Polyaspartic Hybrid Resin Bound Aggregate System

Warranty: Yes — eligible when installed by an InfinityPave Certified Installer

Purpose: Engineered for passenger-vehicle traffic areas such as driveways, parking spaces, walkways, patios, and commercial entrance zones. Provides a durable, UV-resistant, slip-resistant, decorative aggregate finish designed for long-term performance on properly prepared concrete surfaces.

Materials You'll Need

- Pressure washer
- Clean cloths / rags
- Vacuum (industrial)
- Moisture meter
- pH testing strips
- Mixing drills & paddle
- Resin bound forced-action or vertical-shaft pan mixer
- InfinityPave ROX Primer
- InfinityPave ROX Binder (UV-stable)
- Decorative kiln-dried aggregates (common sizes: approx. 1/16–1/8 in. and 1/8–1/4 in.; verify blend/system requirements)
- InfinityPave Slip-Resistant Glass Beads™ (optional)
- InfinityPave ROX Sealer
- Masking tape
- Plastic sheeting
- Resin trowels, floats, steel floats
- InfinityPave Safe Solvent or an approved thinner
- Expansion joint foam or joint tape

Additional Equipment (Optional)

- Mixing tent / canopy (for humid or hot climates)
- Forced-air heater for cold conditions
- Primer / Binder accelerator
- Mechanical surface grinder or diamond floor prep machine

Step-by-Step Application Guide

Step 1. Clean & Wash the Concrete

Pressure wash the entire concrete surface thoroughly:

- Remove dirt, moss, algae, oils, tire marks, and contaminants.
- Allow concrete to dry completely.
- Inspect for signs of moisture rising.

Concrete must be clean, dry, and structurally sound.

Step 2. Inspect & Repair Concrete

Check for:

- Cracks
- Spalled or loose material
- Unlevel depressions
- Expansion joint movement
- Weak, powdery concrete

Repair as required:

- Fill cracks using Repair Mortar
- Patch holes and repairs to flush level
- Grind down high spots
- Ensure uniform surface strength (3,625+ psi (25+ MPa) recommended)

Allow repairs to fully cure before proceeding.

Step 3. Check Moisture and pH Levels

Proper readings are essential for long-term adhesion.

Concrete must measure:

- Moisture: <6% (critical for resin bound application)
- pH Level: <10

If moisture is high:

- Allow extended drying time
- Improve air movement
- Use a moisture-tolerant primer (optional)

Never install resin bound systems on damp or green concrete.

Do not install resin bound materials below 41°F (5°C).

Step 4. Mechanical Surface Preparation

Mechanically abrade or grind the surface to open pores and enhance bonding.

- Grind entire surface using a diamond floor grinder if required
- Remove laitance, sealers, or weak surface layers
- Vacuum thoroughly to remove dust

The surface must have a clean, open, textured profile for primer penetration.

Step 5. Tape & Protect Surrounding Areas

Use masking tape and plastic sheeting to protect:

- Walls
- Edging stones or border units
- Drain grates or covers
- Garage doors
- Landscaping

Define edges cleanly to avoid resin staining.

Step 6. Apply InfinityPave ROX primer**• Coverage: Approx. 0.5–0.8 Oz/Ft² (150–250 G/M²)**

- Roller or squeegee application
- Additives: Up to 10% ROX Thinner (if required for penetration)

Purpose:

- Bonds resin bound system to concrete
- Reduces risk of delamination
- Stabilizes dust and porous areas
- Controls resin absorption into the concrete

Allow primer to become tacky (not fully dry) before application of resin bound aggregate.

Step 7. Install InfinityPave Movement Mesh (Essential for Vehicle Traffic)

After the primer becomes tacky, apply InfinityPave Self-Adhesive Mesh or InfinityPave Standard Mesh over the entire prepared surface.

Purpose:

- Absorbs micro-movements in the concrete
- Reduces tension transfer to the resin bound system
- Prevents reflective cracking and surface splitting
- Increases system lifespan under vehicle loading
- Stabilizes weak or repaired concrete areas

Installation Notes:

- Apply mesh while the primer is still tacky for optimal bonding.
- Overlap mesh strips by 2–3 in. (50–80 mm).
- Avoid wrinkles or air pockets.
- Press mesh firmly into the primed surface.
- For expansion joints, cut mesh cleanly and do not bridge active joints.
- For ramps, inclines, or high-stress areas, apply double mesh for reinforcement.

Once mesh is installed and fully bonded, you may proceed to aggregate mixing.

Step 8. Prepare Resin Bound Aggregate Mix

Use a forced-action or vertical-shaft pan mixer only — NOT a standard concrete mixer.

Mixing ratio (standard):

- 220 lb decorative kiln-dried aggregate
- 14.3–16.5 lb InfinityPave ROX Binder
- Optional: 3.5–10.5 oz Slip-Resistant Glass Beads

Mixing procedure:

Add all aggregates to mixer.

Pour binder evenly over the aggregate.

Mix for 90–120 seconds until coated uniformly.

Do not overmix — prevents aggregate breakdown.

Immediately empty mix (binder begins curing instantly).

Work quickly — resin bound binder has a limited pot life of around 30-45 minutes.

Step 9. Apply Resin Bound Aggregate to Surface

Immediately spread mixed resin bound material onto the tacky-primed concrete.

Recommended thickness for vehicle traffic:

- 3/4–1 in. (18–24 mm), depending on aggregate size
- Edges should be compacted and crisp
- Use steel trowels or resin floats
- Maintain continuous wet edges

Work methodically in teams:

One person mixing

One person transporting

Two people troweling

Avoid cold joints — always overlap into wet material.

Step 10. Trowel & Smooth the Surface

Use a clean steel trowel with Infinity Safe Solvent or compatible light solvent misting.

- Avoid excessive solvent — causes surface defects
- Compact firmly for strength
- Ensure flatness and consistent texture
- Add slip-resistant glass beads if applying on sloped driveways by broadcast in the air above surface

Edges must be neat and straight.

Step 11. Allow Proper Curing**Curing times depend on temperature:**

- Light foot traffic: 6–8 hours
- Vehicle traffic: 24–48 hours
- Full chemical cure: 5–7 days

Prevent:

- Water exposure
- Rain
- Debris
- Vehicle movement
- Pets walking across surface

Cover with canopy if rain is possible within 24 hours.

Step 12. Apply InfinityPave ROX Sealer (Optional but Recommended)

Applied after resin bound surface has cured (usually 24 hours).

• Roller Application

- Coverage: approx. 0.5–0.7 oz/ft² (150–200 g/m²)
- Additives: Up to 10% ROX Thinner (if required for penetration)

Benefits:

- Enhances UV resistance
- Protects from oil & fuel staining
- Increases slip resistance
- Improves long-term durability

Allow to dry before vehicle use.

Step 13. Final Inspection

Inspect the cured surface for:

- Even texture
- No pinholes
- No dry patches
- Full compaction
- No lifting or separation at edges
- Proper curing hardness

System is now ready for use.

Important Tips

- Do not install when rain is forecast.
- Keep resin and aggregates at stable room temperature before mixing.
- Always use kiln-dried aggregates only — moisture ruins the mix.
- Never install on damp or green concrete.
- Resin bound material must be mixed in a forced-action or vertical-shaft pan mixer, no exceptions.
- Avoid over-troweling — causes resin pooling.
- Maintain wet edges to avoid visible seams.

Problems & How to Avoid Them

Problem: Resin dark patches

Cause: Over-troweling or binder pooling

Avoid: Use light solvent mist and minimal pressure.

Problem: Loose stones or weak surface

Cause: Insufficient binder or under-mixing

Avoid: Follow binder weight ratios exactly.

Problem: White patches / whitening

Cause: Moisture contamination

Avoid: Ensure concrete moisture <6% before priming.

Problem: Cracking at joints

Cause: Movement from existing concrete

Avoid: Respect all joints — install expansion joint foam or trims.

Problem: Surface delamination

Cause: No primer or improper grinding

Avoid: Always prime & mechanically prepare.

Problem: Cracking in surface

Cause: Movement from existing concrete

Avoid: Use a crack reduction membrane across the surface such as InfinityPave Self-Adhesive Mesh or InfinityPave Standard Mesh.

DISCLAIMER

Customers must read and follow all instructions to ensure optimal performance.

Information is based on field experience and testing but cannot account for every condition.

InfinityPave is not liable for incorrect installation, misuse, surface contamination, or substrate movement.

Always test substrate compatibility before full application.

Temperature, humidity, and substrate conditions greatly affect curing and performance.