



CASE STUDY

St Patrick's College Vehicle Ramp Safety Upgrade

Overview

Located in the historic city of Ballarat, Victoria, St Patrick's College, Newington required an urgent upgrade to a vehicle-access ramp leading to a service building. The ramp, acting as a delivery driveway, had a gentle to moderate incline and was previously coated with a thin-set epoxy with grit to provide traction. However, the slope and aggregate size meant the surface did not provide adequate slip resistance, creating a safety hazard.

The challenge was compounded by cold winter temperatures (0–6°C) and a limited 10-hour daily window free from dew condensation, which required a solution that could cure rapidly and perform immediately. Traditional epoxy and polyurethane coatings were not suitable under these conditions.

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Challenge:

- Ramp slope and existing coating resulted in insufficient traction
- Cold ambient and substrate temperatures during installation
- Limited dry window due to dew condensation
- Immediate need to eliminate hazard for staff and vehicle safety

Solution:

The A&I Endurafast system was selected — a rapid-cure, hard-wearing coating based on specialised acrylic resins. Its radical polymerisation cure process ensures performance even in cold conditions, making it ideal for urgent applications where traditional coatings fail.

Installation Process:

- 1. Surface Preparation:** Full diamond grinding performed the day before installation.
- 2. Drying:** Substrate dried using gas-operated heaters to remove moisture.
- 3. Coating Application:** Four layers of Endurafast applied over 6 hours, with 40-minute cure times between coats.
- 4. Slip Resistance:** Large, kiln-dried quartz aggregate (>1mm) cast to refusal within the coating to deliver a coarse, high-traction finish.

Results:

- Ramp opened to full vehicular traffic 60 minutes after the final coat
- Dew settled on the surface within hours without affecting performance
- Achieved high slip resistance for both pedestrians and vehicles
- Durable, long-lasting finish suitable for cold-weather conditions
- Completed within tight time constraints, ensuring safety and minimal disruption

Key Benefits:

- Rapid cure even in extreme cold temperatures
- Exceptional slip resistance for safety compliance
- Hard-wearing, long-lasting coating capable of heavy traffic
- Minimal downtime and immediate usability

Outcome:

Endurafast proved to be the ideal solution for St Patrick's College, providing a safe, durable, and rapid-cure finish where traditional coating systems would have failed. This project highlights the importance of selecting the right coating system for challenging environments and tight schedules.



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