

TEMPLINE: Removeable Pavement Marking System

“Engineered for Performance, Designed to be removed”



Executive Summary

TEMPLINE is a spray-applied, removable roadmarking system that delivers the **same durability and visibility as a permanent roadmarking paint**, yet removes cleanly with **no pavement damage**. The Designed to Fail (DTF) system, performs under heavy traffic loads and then lifts cleanly using **low-pressure Class A hot water**, eliminating the need for grinding or resurfacing.

The formulation is a breakthrough born from the industry’s drive to find a better way, championed by RIAA life members and contractors who believed improvement was possible. Brought to life through the expertise of Phil Filewood, an industry-leading industrial chemist with over 60 years of formulation experience, and refined through trials tailored to Australian conditions, it delivers a solution designed to raise the standard for the entire industry.. **TEMPLINE is manufactured to Australian conditions, environmentally safe, and fully compatible with standard line marking equipment**, including airless spray systems and bead guns.

TEMPLINE is an **immediate, low-risk alternative** to mechanical removal methods or expensive line marking tape products, significantly reducing project costs, protects pavement assets, aligning with long-term infrastructure goals.



Challenges with Traditional Temporary Linemarking Methods

Factor	Traditional Method	Implication
Removal method	Grinding, poly-planing, high pressure waterblasting	Causes deep surface scarring, aggregate loss, and oxidation, degrades road asset prematurely
Pavement damage	Unavoidable with mechanical removal	Triggers mandatory resurfacing incurring further costs and additional road closures
Visual artefacts	Tape shredding, surface gouging and ghost lines	Residual markings create driver confusion, increase crash risk, and compromise final line clarity
Operator skill dependency	High – relies on manual precision and site judgement	Inconsistent quality, increased risk of error, and higher supervision costs
Environmental impact	Contaminated runoff from blasting and surface abrasion	High pollution risk to stormwater systems and local ecosystems; increased remediation and EPA compliance costs

The Real Cost - Traditional temporary marking methods routinely result in surface damage such that road authorities and works managers often mandate full resurfacing, even for minor realignments, adding significant cost, delay, and network disruption.



TEMPLINE is engineered to combine performance and removability while preserving road surfaces.

- ✓ **Surface-safe Removal:** Class A hot water >90°C, low-pressure rotary head or lance (4000 psi), no grinding, abrasion or surface penetration
- ✓ **DTF System:** Durable during use, fails cleanly when required
- ✓ **Black Basecoat:** Effectively conceals existing lines without blackout paint
- ✓ **Durability:** Resists wear and bead loss under multi-axle and skid steer conditions
- ✓ **Spray-Applied:** Compatible with standard equipment - airless pumps (min. 4L/min), 21 thou tip
- ✓ **Dry Through Time:** ~10 mins at 20°C, 40% RH with airflow allowing quick traffic switchovers
- ✓ **Environmentally Safe:** Non-hazardous under NOSSC or ADG Code (SDS compliant), waterborne acrylic, solids filterable for landfill, non-flammable, no VOCs or toxic residues

Case Studies: Proven in Practice

The following case studies demonstrate TEMPLINE performance in high-volume, real-world environments, providing clear, validated evidence for its use on projects as a low-risk, commercially proven solution.

Erskine Park (June 2020)

- **Scope:** Main road switch; Early version of TEMPLINE, spray application with basecoat
- **Result:** Scaring minimal; significantly outperformed mechanical alternatives

Moss Vale (Feb 2025)

- **Scope:** Centreline & edgeline lateral shift using TEMPLINE basecoat and topcoat
- **Traffic:** High proportion of heavy vehicles, initially planned for 6 weeks, extended to 23 weeks.
- **Result:** Excellent wear resistance, strong bead retention

New Field Trials

Since launching TEMPLINE, sales have been made for further trials in other jurisdictions.

Detailed Cost & Risk Comparison

TEMPLINE Solution vs Traditional Methods: Saves Cost and Protects Pavement

Factor	Traditional Approach (Waterblasting / Poly-planing)	TEMPLINE (Spray-Applied, Hot Water Removal)
Initial Installation Cost	 Standard waterborne or  detour grade tape	 TEMPLINE incl. base + topcoat
Equipment Requirement	 Specialty tape applicator or heated bitumen setup	 Standard airless line marking equipment
Pavement Protection	 High risk of gouging, aggregate loss, oxidation	 Zero damage, no mechanical abrasion
Line Removal Cost (Labour + Equipment)	 Gridding	 Hot water, no mechanical tools
Resurfacing (due to scarring/oxidation)	 Mandated for asset compliance	 \$0 – no resurfacing required
Traffic Management Downtime	 Possibly Multiple Nights	 Same-day reopening
Environmental Cleanup	 Debris, water runoff, pressure scarring	 Non-toxic, filterable solids only
Visual Artefact Risk (Post-removal ghosting)	 High (gouges, tape shadows, discolouration)	 Low – clean lift with no visible residue
Reusability / Recoat Capability	 Often incompatible with final alignment	 Clean base for final line marking; no re-prep needed
Compliance Risk (Pavement Damage Clause)	 High – often triggers contractor liability	 Low – supports surface protection policy compliance

Notes Source estimates based on 2023–2025 NSW contractor rates for arterial roads. Costs may vary depending on traffic control complexity and removal contractors. TEMPLINE pricing includes basecoat (if used), topcoat, beads, and standard application

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APPENDIX



Technical & Compliance Specifications

Category	Details
APAS Certification	Commercial batch approved
Temperature Range	Apply >15°C; RH <50% preferred
Compatible Equipment	Commercial airless pump (min. 4 L/min), 321/421 tip
Removal Pressure	275 bar (4000 psi) using Class A hot washer
Dry Time	10 minutes at 20°C, 40% RH
Bead Embedment	Type B glass beads, 60% embedment @ 350–400um WFT
Packaging	20L pails
Handling Classification	Not classified as hazardous (ADG/NOSSC)
Waste Disposal	Settles for landfill disposal (non-dissolving)



Installation & Support

- Full application and removal procedure available (Guide 3.1 Class A)
- Equipment compatibility checklist and training included
- Vacuum recovery units recommended for environmental containment
- Independent audit completed at Moss Vale for transparent validation
- Educational media hub in development (photos, video, specs)



Watch the video – [our installation and removal demo](#)



CTMP Inclusion Guide

To support rapid uptake, a TEMPLINE -specific CTMP template and clause language are available for integration. Recommended inclusions:

- Temporary linemarking spec: TEMPLINE (Rayolite Pty Ltd)
- Removal procedure: Guide 3.1 Class A
- Black basecoat line concealment (as per APAS & TfNSW spec)



Independently Audited Performance

An independent contractor audit is planned to evaluate:

- Material performance at Moss Vale with high traffic loads
- Visual impact post-removal
- Ease of reconfiguration/reapplication