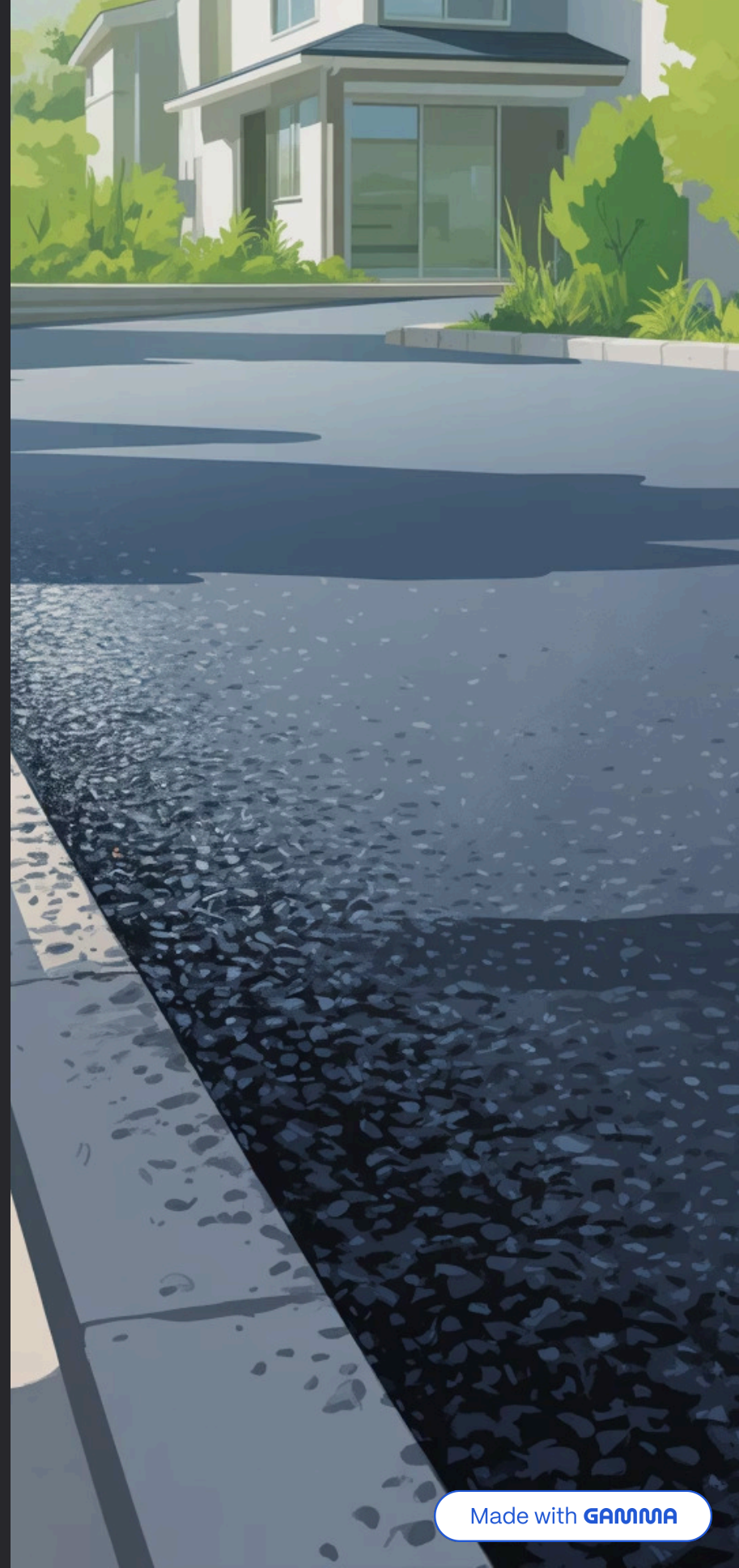
PAVEMENT DEPOT

Making the Switch to Asphalt Emulsion Sealer

A Practical Application Guide for Seal Coating Contractors — **Pavement Depot**

CONTRACTOR GUIDE

ASPHALT EMULSION



Why the Change?

Coal Tar Is Banned in Canada

Coal tar emulsion sealer has been **banned Country-wide** due to high levels of polycyclic aromatic hydrocarbons (PAHs) — harmful to human health and aquatic ecosystems. This ban is permanent.

The good news: today's AE product is vastly improved. Raw materials, emulsification technology, and additive chemistry have all advanced significantly over the past 20–25 years.

Coal Tar vs. Asphalt Emulsion

Category	Coal Tar	Asphalt Emulsion
Legal Status	BANNED	Fully compliant
Full Cure Time	17–21 days (off-gas PAHs)	Hours — cured when visually dry
Forgiving of Mistakes?	Yes — over-application recovers	No — rewards proper technique
Coverage Rate	~80–100 sq ft/gallon	~100 sq ft/gallon (diluted)
Tire Marks	Common complaint in heat	Significantly reduced
Safety	Severe — PAH burns, eye damage	Water-based, far safer
Two-Coat Jobs	Trapping PAHs causes peeling	No off-gassing — better suited

Equipment Requirements

Pump

A diaphragm pump is required when using a polymer modified asphalt emulsion sealer. Centrifugal, banjo, and trash pumps are perfectly fine — as long as you're using a standard asphalt emulsion sealer without polymers or sand added.

Spray Tips

For open commercial areas, larger tip sizes (80/50–80/100) will give you the coverage and speed needed across the lot. For residential jobs or cutting in edges, step down to a smaller tip (80/30–80/40) for better control. Having a couple of sizes on hand is recommended so you can switch depending on the task.

Brushes & Squeegees

We strongly recommend synthetic nylon brushes for best results — natural fiber brushes like Tampico can work, but they tend to be less efficient at pushing the material properly. Nylon bristles ride parallel to the ground and move product more effectively. Squeegees also work well with asphalt emulsion sealers."

Dilution Rates & Mix Consistency

Product Type	Water to Add	Notes
Ready-to-Use (e.g. PMM)	5–10%	Pre-diluted; water for workability only. Use lower end in cool weather.
Concentrate (e.g. Masterseal)	25% (30% in peak heat)	Dilution is part of activation. Bump to 30% in extreme heat — water evaporates fast.

⚠️ **Do NOT Over-Dilute**

Over-dilution is the #1 cause of AE failures. Extra water reduces solids and weakens the film. A thicker mix actually spreads farther.

Field Check: Drop a small amount of water onto the sealer in your tank. A slight "dent" before it blends in = correct consistency. Disappears instantly = too thin.

More Critical Than Ever

Sand: The Reinforcement That Makes Jobs Last

Think of sand like **rebar in concrete** — it is the reinforcement that determines how long your job lasts. Sand is more critical in AE than it ever was with coal tar.

Sand Calculation Rule: 1.5–2 lbs/gallon off **concentrate volume**, not total tank volume.

Example: 100 gal ready-to-use = treat as ~70 gal concentrate. Calculate sand off 70 gal.

Top Tuff additive is highly recommended — it hardens the film to resist tire marks and power steering wear, especially in summer heat.

Application Best Practices

Temperature & Weather

Surface AND air must be **50°F (10°C) or above and rising**. Lay your forearm on the pavement — if it feels cold, don't apply. No rain within 24 hours.

Shaded Areas — Critical

Brush, don't spray in shaded areas (building shadows, overhangs, tree cover). Spraying a heavy coat in shade and hoping it cures will cause failure.

Spray Application

Use 80/50–80/100 tips in open areas. Match walking speed for even, complete coverage. Do NOT try to apply a heavy first coat — even coverage is the goal.

Spill Cleanup

AE cleans up with water. Remove loose material first, add water to dilute, then remove. Repeat until clean. **Tar Buster** works well on hands and tools.

Two-Coat Jobs: How to Do It Right

AE is actually **better suited to two-coat applications** than coal tar — no off-gassing means no trapped contaminants causing peeling.

First Coat

Apply slightly lighter — 70–80% of a full coat. Some aggregate showing through is fine.

Wait Time

Minimum **4 hours** in warm, dry, sunny conditions. Use the scuff test: trailer tire + foot pressure — if it holds, you're good.

Second Coat

Full, normal application. Do NOT cake on two heavy coats. Use 70-series tips for a lighter finish pass.

Stripe Painting

Use **latex paint** — compatible anytime after cure. Solvent-based paint may discolour; test a small area first and allow extra cure time.

Agitation, Storage & Bacteria

Agitate Strain Inspect

Bacteria Treatment: Mix 1 part pool shock to 1 part water. For a 4,000-gal tank: 4 gal shock + 4 gal water. Agitate 30–45 min.

Prevention: Never return leftover job material to your bulk tank — this is the most common way bacteria is introduced.

Winter Storage: Store indoors — do not let AE freeze (32°F / 0°C). Agitate thoroughly in spring and check for smell before loading into bulk tank.

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Quick Reference Card

Temperature

50°F (10°C) pavement AND air, rising

Pump

Dual diaphragm for Polymer Modified — no centrifugal

Tips / Brush

80/30–80/100 depending on job size; nylon/synthetic brush suggested

Dilution

RTU: 5–10% | Concentrate: 25–30%

Sand

1.5–2 lbs/gal off concentrate; 30–60 mesh silica

Shaded Areas

Brush only — never spray in shade

Two-Coat Wait

Min. 4 hrs; confirm with scuff test

Agitation

Daily — confirm shaft is spinning

Spec sheets and Safety Data Sheets (SDS) for all products are available at the **Pavement Depot counter**. Always refer to the product-specific spec sheet for exact dilution rates and coverage data.