

POLY**FIRM** TrailBinder

Product Specification Sheet



Product Overview

TrailBinder is a water-based vinyl-acrylic copolymer emulsion that polymerizes as it dries, binding decomposed rock surfaces into a stable, load-bearing matrix. It delivers a long-lasting, environmentally safe surface, while preserving the natural color of the aggregate. One of the key benefits is its ability to retain aggregates on sloped surfaces which otherwise would deeply rut in rain.

Key Advantages

- Holds aggregate on slopes prone to rain rutting
- Non-toxic, non-carcinogenic, non-flammable
- Zero VOCs; ships as non-hazardous
- High load capacity when properly compacted
- Reduces displacement of crushed rock overlays
- Dries clear, retaining natural aggregate appearance
- Renewable in place — no demolition or disposal
- Multi-year service life with minimal maintenance

Typical Applications

Landscape

- Stable gravel paths, park walkways, patios
- ADA-compliant accessible trails with proper application
- Sloped ramps in high foot-traffic areas

Technical Data

Composition	Vinyl-Acrylic Copolymer Emulsion
Form (as supplied)	White liquid (dries transparent)
VOC Content (EPA TCLP)	None detected
HMIS Hazard Rating	1 – Minimal
DOT / IATA Classification	Non-hazardous, unclassified
Environmental	Non-toxic, non-carcinogenic, non-flammable
Polymerization Temperature	≥ 45 °F / 7 °C
Recommended Application Temps.	Day ≥ 70 °F (21 °C); Night ≥ 50 °F (10 °C)
Rain-free Cure Window	≥ 48 h until dry
Dilution Range	5:1 (water : Trail Binder)
Standard Dilution	5:1 (plus ½ part water in hot, dry weather)
Appearance After Cure	Maintains original aggregate color
Load Bearing (compacted)	Higher than untreated gravel; supports light vehicles
Storage Temperature	33°F – 120°F (0.5°C – 49°C); cannot freeze

Packaging & Coverage

Package	Net Volume	Approx. Coverage*
275 gal tote w/ spigot	275 gal	12 000 – 14 000 ft ² @ 5:1 dilution
5 gal pail	5 gal	220 – 250 ft ² @ 5:1 dilution

*Coverage varies with aggregate size, porosity, and depth.

Storage & Handling

- Store sealed above 33 °F / below 120 °F; product stability declines if frozen.
- No special PPE beyond standard gloves & eye protection.
- Shelf life: two+ seasons when sealed and mixed before use.
- Empty containers eligible for free recycling pickup.

Regulatory & Safety

HMIS: 1-0-0 • EPA VOC: 0 g L⁻¹ • California Prop-65: Contains no listed substances • DOT / IATA: Not regulated