

Application and dilution rates are based on vehicle traffic, soil type, soil compaction, weather conditions, carry over, and vehicle/equipment weight. Your MinTech representative may recommend different rates on specific situations. Some typical application and dilution rates are:

Dust Control - Traffic Areas

Haul roads, container yards, construction sites, trails, and parking lots

Ground Inventory Goal = 0.20 gallons/square yard (first year)

Scraping and grading the road to form a slight crown is all that is necessary to prepare it for Resinator. To control dust on traffic areas, add 250 gallons of Resinator for every 1,000 gallons of water. Apply the mixed solution at a rate of 2,787 gallons per lane mile (19' wide) or 1,212 gallons per acre. Two subsequent applications at this rate are necessary for the initial application. Use large droplets and avoid spraying a fine mist. The average duration of dust control is 4,000 - 7,000 passes, or about 3 months, depending on traffic patterns and weather. Maintenance applications should be made when necessary by diluting 50 gallons for every 1,000 gallons of water and applying the mixed solution at a rate of 2,787 gallons per lane mile (19' wide) or 1,212 gallons per acre. This less concentrated solution will help the maintenance dose bond with and rejuvenate the Resinator that is already in the soil.



Dust Control - Non-Traffic Areas

Vacant lots, highway medians, firing ranges, pond lining, landfills, and road shoulders

Ground Inventory Goal = 0.15 gallons/square yard

Compact the soil if possible prior to application. Add 125 gallons of Resinator for every 1,000 gallons of water. Apply the mixed solution at a rate of 2,787 gallons per lane mile (19' wide) or 1,212 gallons per acre. Two subsequent applications at this rate are necessary for the initial application. Use large droplets and avoid spraying a fine mist. The average duration of dust control is 3-6 months. Maintenance applications should be made as needed at the same rate.

Dust Control - Water Enhancer & Water Extender

Ideal for paved and unpaved roads that incur a lot of carry-over dust and/or blown-over dust

Dilute Resinator into the water truck according to the desired treatment duration using the chart below. Apply as needed to bind new dust to the road surface, improve driving surface, and reduce silt run-off.

Typical application rates of 4,000 - 5,500 gallons of the diluted solution per lane mile (18' wide). Reduces water usage by 1/2 - 1/24th, which saves man hours, reduces fuel costs, reduces wear and tear on the water truck, reduces the erosive effects of watering, extends the road life, and improves safety.

Dosage Rate	Coverage Rate of Diluted Solution	Initial Treatment Duration*	Initial Improvement Factor*	Cumulative Treatment Duration Factor**	Cumulative Treatment Improvement Factor***
1:1000	0.5 gal/sq. yd.	30-60 minutes	2X	1.1X	2.2X
1:500	0.5 gal/sq. yd.	1-2 hours	5X	1.2X	6X
1:250	0.4 gal/sq. yd.	2-4 hours	10X	1.4X	14X
1:125	0.4 gal/sq. yd.	4-8 hours	12X	1.6X	19.2X
1:50	0.4 gal/sq. yd.	8-12 hours	16X	2.0X	32X
1:25	0.3 gal/sq. yd.	12-24 hours	24X	2.5X	62.5X

*Compared to water only programs at 0.5 gal/square yard, at 95°F, 20% humidity, which last 15-30 minutes. Actual results may vary based on soil, traffic, and weather conditions.

** Because Resinator builds a ground inventory that is rejuvenated with each subsequent treatment, the effect of multiple applications is cumulative. Therefore, the duration of each subsequent treatment is longer than the previous treatments by the factor shown in the table.

***Example of the improvement factor after two applications.

Berm & Pile Dust Control

Erosion protection, long-term storage, etc.

Ground Inventory Goal = 0.05 gallons/square yard

A total of 250 gallons of Resinator should be applied to each surface acre over the course of two applications.

First Application - Add 150 gallons of Resinator to 1,000 gallons of water and apply the mixture over 1 acre. Allow an hour of drying time before doing the second coat. Second

Application - Add 100 gallons of Resinator to 1,000 gallons of water and apply the mixture over 1 acre. Allow 2 hours of drying time before allowing traffic.

Each application should start at the crown in the center of the pile and spiral out to the perimeter.

Avoid traveling over the treated area as much as possible, especially on the final application.

Concentrate application on steeper sloped areas.

Resinator can be used as a pre-treatment before a Mincryl™ X50 pile sealing application.

Hydro Mulch/Straw Tackifier:

Aids in adhesion to soil, and the darker color enhances incubation and germination when reseeding.

Level surfaces and gradual slopes (3:1 run-rise) with good top soil material

Application rate: 0.03 gallons/square yard

Steeper slopes (2:1 run-rise) with good top soil material

Application rate: 0.05 gallons/square yard

Prepare Resinator by mixing it well prior to adding it to the hydro mulch/straw tank. For level surfaces and gradual slopes, add 30 gallons of neat Resinator for every 1,000 square yards of tank volume. For steeper slopes, add 50 gallons of neat Resinator for every 1,000 square yards of tank volume. Apply mulch in the normal manner.

Erosion Control (No Straw or Mulch):

Slopes and banks without good top soil

Ground Inventory Goal = 0.10 – 0.15 gallons/square yard

Dilute Resinator at a rate of 1:4 with water (100 gallons of Resinator for every 400 gallons of water) and apply the solution over the area at a rate of 500 gallons per 1,000 square yards to achieve a ground inventory of 0.10 gallons per square yard. If more is required based on slope, soil conditions, and traffic conditions, then prepare a second application at the same dilution rate but only apply 250 gallons per 1,000 square yards. The second application should be performed on a separate day.

Road and Pad Stabilization:

Provides 4 to 6 inches of road base enhancement: improves compaction, improves compressive strength, reduces moisture susceptibility, increases cohesive properties of the aggregate, and reduces dusting and erosion

Ground Inventory Goal = 0.3 – 0.5 gallons/square yard

1. Position suitable base material into rows along either side.
2. Dilute Resinator at a rate of 1:4 with water, and apply the solution onto the surface in order to provide approximately 0.05 - 0.1 gallons of Resinator (0.25 - 0.5 gallons of diluted solution) per square yard.
3. Allow product to penetrate into the soil, then static rolling, or more preferably, vibratory rolling, will provide compaction.
4. Blade 1-2 inches of base material onto the treated surface.
5. Repeat steps 2 through 4 until all of the base material has been bladed onto the road bed and the desired volume of Resinator has been incorporated into the road bed.
6. Top coat the final compacted surface with a 1:4 dilution at a rate of 0.05 gallons per square yard.
7. Maintain with this same treatment on an as needed basis.

Tip: Check the moisture content of the road bed after each pass to ensure optimal moisture and compactibility. Adjust driving speed and compaction as needed.

Full-Depth Reclamation by Injection Method:

Provides 6 to 14 inches of sub base and road base reconstruction: increases density and load-bearing capacity, improves stability and durability, and reduces dusting and erosion.

Ground Inventory Goal = 0.6 – 1.4 gallons/square yard (2.4 – 3.6 gallons/cubic yard)

Reclaim to design depth on first pass. On second pass, reclaim at the design depth while injecting Resinator diluted at a rate of 1:2 - 1:4 with water (depending on optimal moisture levels of 10-12%) at an application rate of 2.0 – 7.0 gallons of the diluted solution per square yard (depending on depth) directly into pug mill, bow mag, or other milling machine.

Tip: Continuously check the moisture content of the milled material to ensure optimal moisture (10-12%) and compactibility.

Static rolling and vibratory rolling must be performed immediately. Shape the surface as desired, then compact again. Top coat applications using a 1:4 dilution at a rate of 0.05 gallons per square yard. Maintain with this same treatment on an as needed basis.

Railroad Subgrade Stabilization

Provides 12+ inches of subgrade stability: increases density and load-bearing capacity, improves stability and durability, and reduces dusting and erosion.

Ground Inventory Goal = 0.09 – 0.13 gallons/cubic foot (2.4 – 3.6 gallons/cubic yard)

Railroad subgrade instability is often caused by a loss of subgrade soil strength. Poor drainage, increased traffic, increased speeds, unstable fill, and other factors can cause track misalignment. This can be prevented by the incorporation of Resinator into the subgrade during railway construction:

Pre-construction:

Inject Resinator diluted at a rate of 1:2 - 1:4 with water (depending on optimal moisture levels of 10-12%) at an application rate of 2.0 – 7.0 gallons of the diluted solution per square yard (depending on depth) directly into pug mill, bow mag, or other milling machine. Continuously check the moisture content of the milled material to ensure optimal moisture (10-12%) and compactibility. Static rolling and vibratory rolling must be performed immediately. Shape the surface as desired, then compact again. Top coat applications using a 1:4 dilution at a rate of 0.05 gallons per square yard.

For existing railways where subgrade instability is occurring, two main practices are often employed: Wet Soil Mixing and Soil Injections. These practices fill underlying voids and densify soils, resulting in improved stability. The intent of both of these procedures is to improve compressive strength, shear strength, and permeability. A geotechnical construction firm will determine the process and solution characteristics needed to achieve the best outcome.

Remedial Stabilization:

Wet Soil Mixing is the mechanical blending of in situ soil with Resinator to achieve improved engineering properties such as compressive strength and compaction. While each project is different, a typical application involves the use of a paddle mixer and an engineered grout slurry consisting of Resinator, expansive soils, and aggregates.

Soil Injection is the pressure injection of Resinator solutions into the ground. The composition of the solution depends on the application, which commonly includes a mixture of expansive soils and subgrade aggregates.