GEOSTABILIZER

TECHNICAL DATA SHEET (TDS) | Liquid Polymer Soil Stabilizer

PRODUCT OVERVIEW

GeoStabilizer is a water-dilutable liquid polymer soil-stabilization treatment intended to bind soil and aggregate particles into a denser, more water-resistant surface or stabilized layer. Typical applications include unpaved roads, pads, parking areas, trails, erosion-control areas and dust-control projects.

QUICK REFERENCE
Stabilization dilution: 10-15 gal water : 1 gal concentrate
Typical concentrate coverage: 40-66 sq ft/gal
Benchmark: 66 sq ft/gal
Cure: 24-72 hours
Minimum application/cure temperature: 40 F

Typical Applications

Road and pad stabilization	Dust control / dust suppression
Parking and work areas	Trails and pedestrian surfaces
Erosion-control applications	Stabilization of suitable native soils and aggregates

Road / Pad Stabilization - Application Guidance

Parameter	Typical Guidance	Notes
Water dilution	10:1 to 15:1 water to concentrate	Adjust for existing soil moisture, climate and soil type.
Concentrate application	1 gal per 40-66 sq ft	Published benchmark: 66 sq ft per gallon of concentrate.
Cure time	24-72 hours	Dry weather and sunshine are preferred.
Temperature	40 F minimum	Do not apply when temperature is expected to fall below 40 F during application/cure.

Recommended Construction Sequence

1. Evaluate the soil. Confirm gradation, moisture and suitability for stabilization. Laboratory or field trials are recommended for engineered work.

2. Prepare the area. Grade/rip or scarify the treatment layer and remove unsuitable debris or organics.

3. Dilute GeoStabilizer. Mix concentrate with clean water at the project-specific ratio.

4. Apply uniformly. Distribute the diluted solution through the treatment depth using a water truck/sprayer and appropriate mixing equipment.

5. Mix and moisture-condition. Blend thoroughly until uniform and bring material to the moisture condition required for compaction.

6. Grade and compact. Shape the surface and compact with appropriate equipment to the project specification.

7. Cure. Protect from rain and unnecessary traffic while the stabilized layer cures.

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TECHNICAL DATA SHEET - Performance, Handling & Project Design

Performance / Technical References

Reference	Published GeoStabilizer technical evidence used as formulation-family reference
Hydraulic conductivity	Laboratory testing of GeoStabilizer-stabilized material was performed in essential accordance with ASTM D5084, Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter.
State DOT listing	Historical Nevada DOT qualified-products documentation listed GeoStabilizer as a soil stabilizer and gave an application/dilution instruction of 10 gal water to 1 gal product per 100 sq ft.
Product class	Federal stabilization guidance lists GeoStabilizer among synthetic polymer emulsions used for dust suppression and/or soil stabilization.

Project-Specific Design

Application rates are not universal. Soil gradation, clay/fines content, aggregate type, existing moisture, treatment depth, desired performance, weather, traffic and compactive effort can materially change the required dilution and concentrate quantity. For engineered roads, structural sections or performance specifications, establish the final rate through representative soil testing and/or a field test section.

Equipment

Typical stabilization work may use a traveling mixer, disc or equivalent mixing equipment; motor grader with rippers; water truck; and appropriately sized compaction equipment such as a double-drum roller. Equipment should be selected for the soil, treatment depth and project scale.

Handling, Storage & Limitations

- Use clean water for dilution and keep the mixture uniform during application.

- Protect concentrate from freezing and prolonged temperature extremes.

- Do not apply immediately before rain or when adequate curing conditions cannot be maintained.

- Avoid application below 40 F during the application and curing period.

- Actual coverage and performance depend on soil and site conditions; conduct a test section when conditions are uncertain.

- Review the current GeoStabilizer Safety Data Sheet (SDS) before handling. Use appropriate eye/skin protection and follow site-specific safety requirements.

Important Technical Note

This TDS uses published GeoStabilizer technical/application documentation as a reference for GeoStabilizer. Before issuing this sheet as a certified product specification, GeoStabilizer-specific laboratory values (such as solids, pH, density, viscosity, freeze point, shelf life, VOC data, strength/CBR/UCS and permeability) should be inserted only where supported by current GeoStabilizer manufacturing QC or independent test reports. No unsupported physical-property values are asserted in this edition.

Reference Basis

1. Sunrise Powerlink Transmission Project, Dust Control Plan - GeoStabilizer Application Instructions (G.M. Boston Company Intl., LLC).

2. Nevada Department of Transportation Qualified Products List - Soil Stabilizer, GeoStabilizer.

3. Teratest Labs, Inc. - ASTM D5084 hydraulic conductivity testing of GeoStabilizer-stabilized material.

4. Federal Highway Administration / USDA Forest Service stabilization guidance - synthetic polymer emulsions including GeoStabilizer.

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For technical guidance and project-specific application recommendations, contact GeoStabilizer.