

SOIL STABILIZATION SPECIFICATION

OVERVIEW

Top-Seal White (TSW) & Top-Seal Black (TSB) Liquid Soil Sealant and Stabilizer is shipped concentrated in 55-gallon drums and 275-gallon totes. The product is **non-hazardous**, environmentally safe, and easy to use. TSW/TSB is used for construction or reconstruction of a soil base for roadways, airfields, parking lots, and all other types of projects that require improvement of traffic bearing capacity. A base that has been constructed with TSW/TSB is ready for traffic, or it can be further upgraded with a stabilized wearing surface which includes cold recycles concrete made with TSW.

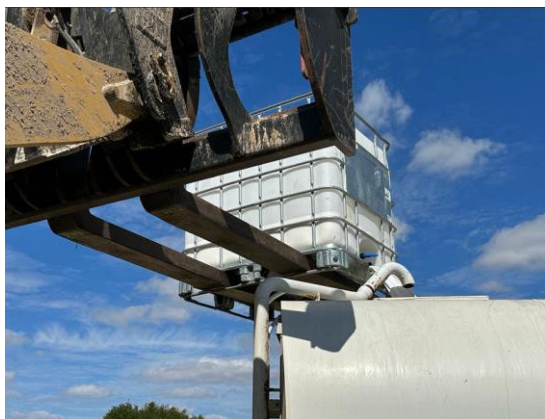
SHIPPING

The product is shipped concentrated in 55-gallon drums or 275-gallon totes. A container can carry 16 totes or 88 drums.



PRODUCT HANDLING & MIXING

There are no special equipment or handling requirements for using TSW/TSB. The product is simply added to the water in a water truck during routine construction operations and mixed into a soil base as evenly as possible at the prescribed application rate. In preparation for applications, the product is simply diluted with the water that will be used for moisturizing the soil prior to the compaction phase of road construction or improvement procedures. For utilization in cold recyclers, contact your Soils Control International, Inc. representative for application and concentration calculations.





TOP-SEAL WHITE

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EQUIPMENT

A variety of finishes can be achieved based on the use of specialized equipment and aggregates. For more information about specifics and planning, please contact your Soils Control International, Inc. representative for more information.

- **Basic Finish**
 - Motor Grader – Blade/Ripper
 - Water Truck
 - Rubber Wheel Compactor
- **Standard Finish**
 - Motor Grader – Blade/Ripper
 - Water Truck
 - Rubber Wheel Compactor
 - Steel Drum Compactor
- **Premium Finish**
 - Motor Grader – Blade/Ripper
 - Cold Recycler and Soil Stabilizer
 - Sheep Foot Compactor
 - Steel Drum Compactor
 - Water Truck
- **Premium Wear Surface**
 - Recycled Concrete or Fine Road base
 - Volumetric Concrete Mixing Truck
 - Paver and finishing crew

APPLICATION RATES

If these application rates are not clear, please contact your SCI representative. For soil stabilization, the utilization of the product should be thought of in 1/3rds. 1/3 per 3" lift or 2/3 for a 6" lift. 1/3 for the final overcoat.

Product Gallons by Application Type							
Water Truck Size/Gallons	1000	1500	2000	3000	4000	5000	6000
Soil Stabilization Good Soil							
6" Soil Stabilization Low	100	150	200	300	400	500	600
6" Soil Stabilization Medium	117	175	233	350	467	583	700
6" Soil Stabilization Heavy	167	250	333	500	667	833	1000
6" Soil Stabilization Very Heavy (HRTS)	190	285	380	570	760	950	1140
Soil Stabilization Poor Soil							
6" Soil Stabilization Low	117	175	233	350	467	583	700
6" Soil Stabilization Medium	167	250	333	500	667	833	1000
6" Soil Stabilization Heavy	190	285	380	570	760	950	1140
6" Soil Stabilization Very Heavy (HRTS)	233	350	467	700	933	1167	1400
Dust Control Good Soil							
1" Dust Control Low	63	94	125	188	250	313	375
1" Dust Control Medium	73	109	145	218	290	363	435
1" Dust Control Heavy	105	158	210	315	420	525	630
1" Dust Control Very Heavy	120	180	240	360	480	600	720
Dust Control Poor Soil							
1" Dust Control Low	73	109	145	218	290	363	435
1" Dust Control Medium	105	158	210	315	420	525	630
1" Dust Control Heavy	120	180	240	360	480	600	720
1" Dust Control Very Heavy	135	203	270	405	540	675	810

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WATER TRUCK SPEED

The rate at which the water truck dispenses liquid is directly related to the speed of the truck.

Water Truck Gallons/Minute Application Rate							
Water Truck Size/Gallons	1000	1500	2000	3000	4000	5000	6000
1.5hp Honda Water Pump g/m	75						
Minutes of Pump Time	13	20	27	40	53	67	80
Soil Stabilization - Single Pass Length 3" Lift	500	750	1000	1500	2000	2500	3000
Dust Control - Single Pass Length Ft	1875	2813	3750	5625	7500	9375	11250
Water Truck Speed MPH	0.43	0.43	0.43	0.43	0.43	0.43	0.43

APPLICATION PROCEDURES – SUBGRADE FINISH

1. All Finishes - Utilizing a motor grader, scarify the road to a depth of 6" inches.
2. Product Application
 - a. Basic & Standard Finish
 - i. Apply the product with a [water truck in dilution](#).
 1. We recommend utilizing our water truck spray bar for consistent application for gravity fed water trucks. Water trucks with a motorized pump work without modification. Use the table below to determine the speed of water truck based on GPM application rate.
 - b. Premium Finish
 - i. Utilize a [Wirtgen WR 240](#) or similar to apply and mix the product
 - ii. Sheep foot compactor pass
3. Utilize the motor grader to grade compacted road base.
 - a. Basic and Standard finishes, this will mix the product
4. Final Compaction
 - a. Basic and Standard Finish
 - i. Rubber Wheel compactor pass
 - b. Standard and Premium Finish
 - i. Steel wheel Compactor pass
5. Final Overcoat
 - a. Utilizing water truck, top seals the product and is the final dust control and sealing layer.
6. Overnight Drying
 - a. The product hardens through evaporation. In dry warm climates overnight will be sufficient for next day driving. In cooler overcast environments a soil moisture reading should be the determining factor of drivability.

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MAINTENANCE APPLICATIONS

Maintenance applications and road repair is extremely easy with TSW/TSB. Plan for at least

1. Pothole patching
 - a. Mix extra road base material with product in wheelbarrow or bucket.
 - b. Fill Pothole and finish to existing grade
 - c. Let Dry
 - d. Overcoat area 3ft out from pothole in all directions.
 - i. A simple garden sprayer can be used
2. Full Maintenance Application
 - a. This is a repeat of the Final Overcoat, applying product with a water truck.
 - i. Utilize the same concentration as the original application

EXPECTED RESULTS



BEFORE STABILIZATION WITH TSW



AFTER ONE YEAR LATER



BEFORE STABILIZATION WITH TSB



AFTER STABILIZATION WITH TSB



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Special Notes about Compliance and Safety: None of the chemicals used in the manufacturing of TSW/TSB are listed on the current environmental protection listings for toxic pollutants. There are no vinyl acetate or alkyl phenol ethoxylate (APE) surfactants used in the manufacturing of this product. All chemical components of TSW/TSB are approved and/or are in compliance with the U.S. Toxic Substances Control Act (TSCA) Inventory, and none of them appear in the U.S. Agency for Toxic Substances and Disease Registry (ASTDR).

Unlike chlorides, TSW/TSB is not corrosive to equipment and traffic, and it does not wash out, biodegrade, or break down when exposed to moisture and traffic. TSW/TSB is non-regulated for transportation, it is easy to use, environmentally safe, and there is no special equipment or handling requirement.