

SANDLOCK ADDITIVE & PREMIX

ORGANIC JOINT SAND STABILIZER



SANDLOCK is a unique, non-toxic, organic joint sand additive for segmental flexible and semi-rigid pavement systems. Sandlock binds joint sand in the joints of interlocking concrete and clay brick pavers or stone sets. A natural “glue” is formed when Sandlock is activated with water binding it and the sand particles. Sandlock prevents sand loss due to wind, traffic, surface moisture or thermal movement. A Sandlock pavement will have reduced weed growth from wind blown germination and is effective against ants. Sandlock remains flexible and will accommodate pavement flexing. It will not chip out or break apart from wear. Loosened material is recaptured with any moisture. Sandlock does not dilute like water based chemical products. Sandlock is environmentally safe and contains NO chemicals. It is safe for use around plants, animals and people. It works in all climatic conditions. Sandlock will not break down from ultraviolet light. It is non-staining, non-toxic and does not alter the paver’s original color and beauty. No surface coating is left behind after proper application.

SANDLOCK is an economical and better environmental option over chemical joint stabilizers. Sandlock ADDITIVE can be mixed with joint sand on the job site. Compaction and stabilization are both done at once. Install pavers, mix approximately 3-4 pounds of Sandlock for every 100 pounds of joint sand, sweep, compact, and when all joint material is swept clean from the paver surface, activate Sandlock by flooding with water; then, allow to set. NO additional steps are required.

JOINT STABILIZATION SPECIFICATIONS for SEGMENTAL PAVEMENTS:

Part 1 – GENERAL

1.1 Scope of Work

- A. Work included in this section, paver joint stabilization.

1.2 System Description

- A. Modular paver systems with aggregate / sand filled joints with organic Sandlock ADDITIVE or PREMIX.

1.3 Submittals

- A. Sand: 1 lb. sample with sieve analysis from aggregate supplier.
- and**
- B. Sandlock ADDITIVE: 1lb. sample with manufacturer’s MSDS information.
- or**
- C. 1 lb. sample of Sandlock PREMIX

1.4 Tests

- A. Provide gradation test of aggregates to be used in accordance with ASTM C-136 method for sieve analysis for fine and coarse materials **only** when Sandlock ADDITIVE is mixed on site.

1.5 Environmental Conditions

- A. Do not use Sandlock ADDITIVE or PREMIX during wet or rainy conditions.
- B. Ground moisture or dew can cause material to emulsify.
- C. Do not store Sandlock or mixed materials or PREMIX on any surface without protection against moisture.

1.6 Safety and Handling

Warning: Will cause damage to asphalt. Avoid mixing, staging or contact with asphalt. When using bituminous set pavers and Sandlock, it is important that no Sandlock

contaminates the asphalt or adhesive before pavers are set. Using Sandlock with sand for joints on a bituminous set job will not cause problems. Always use common sense and call 952-226-6833 or visit our website at www.sandlock.net for latest in installation, specifications and MSDS info.

- A. Always wear dust masks while spreading and mixing Sandlock containing materials.
- B. Treat dust as you would grain dust.
- C. Will wash off skin and tools with water and scrubbing.
- D. Sandlock is 100% non-toxic.

Part 2 – PRODUCT

2.1 Joint sand properties and gradation should conform to ASTM C-136 using gradation specifications from either C-33 or C-144 or combination of both. Sand will not contain shale, stone dust, screening or lightweight aggregates. Use current Joint Sand guidelines from ICPI.org.

Gradation - ASTM C - 33

<u>Sieve Size</u>	<u>Percent Passing</u>
3/8 in. (9.5 mm)	100
No. 4 (4.75 mm)	95 to 100
No. 8 (2.36 mm)	80 to 100
No. 16 (1.18 mm)	50 to 85
No. 30 (0.600 mm)	25 to 60
No. 50 (0.300 mm)	10 to 30
No. 100 (0.150 mm)	2 to 10

Gradation - ASTM C - 144

<u>Sieve Size</u>	<u>Natural Sand Percent Passing</u>	<u>Manufactured Sand Percent Passing</u>
No. 4 (4.75 mm)	100	100
No. 8 (2.36 mm)	95 to 100	95 to 100
No. 16 (1.18 mm)	70 to 100	70 to 100
No. 30 (600 mm)	40 to 75	40 to 75
No. 50 (0.300 mm)	10 to 35	20 to 40
No. 100 (0.150 mm)	2 to 15	10 to 25
No. 200 (0.075 mm)	0 to 10	0 to 10

SANDLOCK SPECIFICATIONS

2.2 SANDLOCK ADDITIVE PROPERTIES

- A. Proprietary, non-toxic, organic binder that is a colorless and odorless powder that binds aggregates together to produce a firm paver joint.
- B. **COMPOSITION** - Is an all natural ecological product. It is a non-toxic organic powder that is odorless and does not change the appearance of the sand. It is not harmful to plants, animals, or humans. Sandlock is easy to use and is suitable for all climates
- C. **COVERAGE** - Approximately 3 to 4 pounds of Sandlock ADDITIVE are used per 100 pounds of sand needed for jointing. Coverage will vary with the size and shape of the paver as well as the width of the joints.

2.3 SANDLOCK PREMIX PROPERTIES

It is a premium product that is a mixture of Sandlock ADDITIVE and the best regional structural sand available. Proper sand gradation and other properties are critical to all segmental paver projects performance.

Part 3 – EXECUTION

3.1 Blending SANDLOCK ADDITIVE with Sand

- A. Uniformly blend 3 to 4 lb. of Sandlock per 100 lb. of dry joint sand material. Onsite mixing ratio may be adjusted to between 2 to 5 lb. per 100 lb. of sand. Contact Sandlock to send sand sample for correct mix ratio recommendation if unsure.
- B. Blending can be accomplished either by hand mixing or a mechanical mixer, or material can be pre-mixed in proper proportions and delivered to the work site. Mix only enough material to completely fill the joints of the pavers which have been set that day. Once mixed, material must remain dry prior to application. Proper precaution should be taken to protect materials from moisture exposure prior to use. While Sandlock can be added to damp sand, it should not be used with sand that is dripping wet. Be sure to cover all sand piles at the end of every work day or if rain is expected.

3.2 Blending SANDLOCK with Open Graded Aggregates

- A. Using Sandlock with open graded aggregates is slightly different than when dealing with sand. Mixing ratio is reduced relative to particle size. Recommended sample mix ratio is ¼ to ½ lb. Sandlock to 100 lb. of aggregate. The larger the aggregate, the **LESS** Sandlock is used. Onsite adjustment of the mixing ratio is recommended as no two aggregates sources are the same. Typical aggregate size used for open jointed pavements would be a processed (crushed) ¼" to ¾" clear material.

3.3 Placement of Mixed Joint Material

- A. Spread mixed joint material over paved surface evenly; completely cover paver surface with thin layer of mixed aggregate and Sandlock. Using a push broom sweep the mixture into the joints with a slight pounding motion.
- B. Once a substantial area of the pavement has been swept, run a plate compactor over the pavers in overlapping passes. Brush more of the mixture into the joints and compact the same area again. Continue this procedure until all the joints are full and material can no longer be vibrated into them.

3.4 SANDLOCK PREMIX Placement

Use Sandlock PREMIX directly from the 50 lb bags. Do not add additional sand that would alter the mix ratio. After pavers have been compacted, open bags on the area to be treated and sweep into joints.

Next, alternately compact and sweep until joints are full. Next, follow instructions in section 3.5 Activation.

3.5 Activation of Bonding

- A. Carefully sweep entire pavement clean to remove Sandlock mixture from the paver surfaces. Excess mixed materials including chamfered areas. Power brooms or blowers are recommended for large areas. Excess material remaining on surface after the mixture has been activated is difficult to remove.
- B. The paved area, including joints, should be flooded with water to activate the Sandlock additive. Care must be taken to avoid washing sand from the joints. **DO NOT USE HIGH PRESSURE SPRAY FOR FLOODING SURFACE.** After flooding, surface area should be allowed to dry, prior to permitting traffic. Drying typically occurs within 2 to 6 hours, depending upon weather conditions.

3.6 Cleanup

- A. If Sandlock is left on surface, it may emulsify. Depending on severity, it may come off with water and brushing or may require pressure washing.

NEVER LEAVE SANDLOCK RESIDUE ON SURFACES!

WARNING!

**DO NOT use SANDLOCK materials in the bedding layer!
DO NOT mix, stage, or come into contact with asphalt.
SANDLOCK will wick out the oils in asphalt and will cause damage.**

Read complete instructions before use. Always use common sense.



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