

PRODUCT DATA SHEET

Sika® Dust Seal PH

DUST SUPPRESSANT AND SOIL STABILISER

DESCRIPTION

Sika® Dust Seal PH is produced from lignosulphonates with outstanding properties for dust binding. It can be used to eliminate dust problems in connection with unpaved roads, finely divided coal and mineral ores. Sika® Dust Seal PH also has very good soil stabilisation properties on unimproved roads producing a hard and durable surface. It is also recommended for road edge sloping and gives good protection against soil and sand erosion in rural and desert areas.

USES

Sika® Dust Seal PH has a diverse range of dust binding applications. It can be used on:

- Dirt and gravel roads.
- Unpaved roads.
- Unimproved roads.
- In rural and desert regions.

Sika® Dust Seal PH is used in these areas when the amount of traffic found on unsurfaced roads (where dust is not bound) increases to a point where road maintenance and repair costs escalate.

CHARACTERISTICS / ADVANTAGES

- Forms a hard, firmly bound surface that adds traction, safety and comfort for vehicles.
- Eliminates the sliding hazards of loose aggregate by binding with road soil into hard skid resistant surface.
- Increases the load-bearing strength of all types of road soils, whether wet or dry.
- Binds dust particles to the road. Stops dust clouds thus improving driving comfort and safety.
- Holds the road material on the road and allows building of the road stages. Aggregate is bound into the road surface and cannot be thrown by traffic reducing the hazard of broken windscreens.
- Decreases the rate of water penetration into the road, increases run-off and reduces mud condition.
- Reduces heaves and breakup due to seasonal change in weather conditions.
- Roads sealed with Sika® Dust Seal PH may be used immediately after treatment. This allows the treatment of vital transportation arteries and detours without tying up traffic.
- Can be applied easily and cheaply with equipment commonly available and used for regular road maintenance.

PRODUCT INFORMATION

Packaging	210 Liter Drum 1000 Liter Bulk
Appearance / Colour	Brown
Shelf Life	At least six (6) months when unopened
Storage Conditions	Store at temperatures between 5°C and 35°C in unopened original containers protected from direct sunlight.
Density	1.150 kg/liter approximately
Consumption	The quantity of Sika® Dust Seal PH used depends largely on the kind of road required and the road material itself..

Soil Classification	First	Maintenance
	Spreading	Spreadings
	Sika Dust Seal	Sika Dust Seal
	1/ m ²	1/ m ²
Mainly Dust Suppression		
Plastic	0.25 - 0.50	0.15 - 0.25
Slightly or nonplastic	0.50 - 0.80	0.25 - 0.40
Mainly soil stabilisation	0.80 - 1.60	0.30 - 0.50

APPLICATION

Sika® Dust Seal PH is best applied when the surface of the soil is slightly damp. If binding soil is to be added, spreading should take place shortly afterwards. Under normal conditions, best results are obtained when the road surface is watered shortly before the spreading of Sika Dust Seal. Watering should be a light sprinkling of approximately 0.5 to 1 liter of water per square meter.

Application Procedure

1. Grade the road to remove all corrugations and potholes, and to loosen the road surface material to the desired depth of penetration. Some roads work easier if a light application of Sika® Dust Seal PH is used before the first grading to soften the surface.
2. Blade most of the loose material into windrows on both sides of the road to prevent run-off of valuable Sika Dust Seal and to assure uniform penetration down into the subsurface.
3. After the windrows are formed. Sika® Dust Seal PH is applied by spraying it on the road from a tank truck. The rate of application can be regulated by valves or truck speed with gravity flow equipment. Pressure regulated trucks can also be used. For best results, Sika Dust® Seal PH should be thoroughly mixed with the soil. For stabilisation of the top 70 – 80 mm of the road material, the following steps are commonly used to ensure good mixing:
 - a) Spray 1/3 to ½ of the Sika® Dust Seal PH specified for total treatment between windrows.
 - b) Blade windrows to the centre, spreading evenly.
 - c) Spray approximately 1/3 of the total specified Sika® Dust Seal PH on the surface, and blade or mechanically mix with a grader or pulveriser. Save part of the Sika® Dust Seal PH for final top dressing treatment

4. The road is now ready for the final forming. Since rapid surface drainage normally is important to lignin treated roads, the best type of crown is a modified A type slope of the road. This crown is also favourable when using Sika® Dust Seal PH though it is not critical. The rounded crown commonly used is not favourable for lignin treated roads, as it allows pools of water to collect on the relatively flat centre part of the road. This standing water can increase the plasticity of the road material to the point where traffic can cause potholes to develop.
5. After the final shaping and formulation of the A type crown, a top dressing of Sika® Dust Seal PH should be used to touch up any dry spots which might have been exposed during grading. This should be a relatively light spray, especially when the soil is wet, in order to avoid excess surface plasticity and run-off of valuable binder.
6. The final step is compaction. This is best done with a multiple wheeled roller, but very satisfactory results can be obtained by letting traffic do the compaction. Compaction should be done before Sika® Dust Seal PH dries ie. while the road material is still somewhat plastic. Sika® Dust Seal PH can be used also for stabilising base courses prior to covering the bituminous or concrete wearing mat, because it adds stability to the sub-surface and useful life to the mat. In this case it is desirable to add aggregate and stabilise the top 250 –300 mm of the road to provide a good hard wearing surface. The strength of a well graded soil is increased in direct proportion to the quantity of Sika® Dust Seal PH added. Maximum strength improvement comes with between 2 and 3 percent by weight of Sika® Dust Seal PH in the soil.

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data and uses.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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