

PRODUCT DATA SHEET

Sika® Dust Seal-100 SH

DUST SUPPRESSANT AND SOIL STABILIZER

DESCRIPTION

Sika® Dust Seal-100 SH is a liquid, lignosulphonate based product, with exceptional dust binding properties during excavation processes.

USES

Sika® Dust Seal-100 SH has a diverse range of dust binding properties. It can be used to eliminate dust problems in unpaved roads or in roads with finely divided coal and mineral ores. Sika® Dust Seal-100 SH also has very good stabilization 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. Sika® Dust Seal-100 SH can be used in:

- Dirty and gravel roads
- Unpaved roads
- Unimproved roads
- In rural and desert areas
- Cases of need for stabilization of the road prior to the final road paving (concrete or asphalt)
- Cases where roads have not been covered with asphalt/ concrete (i.e. in roads with high dust production) and with heavy traffic load, but repair and maintenance of the road is especially costly

CHARACTERISTICS / ADVANTAGES

- Forms a hard, firmly bound surface that adds traction, safety and comfort for vehicles.
- Eliminates the sliding hazards of loose aggregates, by binding with road soil into hard skid resistant surface.
- Increases the load-bearing capacity of all types of road soils, wet or dry.
- Binds dust particles to the road. Stops dust clouds, improving thus driving comfort and safety.
- Holds the road material on the road and allows building of the road stages. Aggregates are bound into the road surface and cannot be thrown by traffic, reducing thus the hazard of broken windscreens.
- Decreases the rate of water penetration into the road, increases run-off and reduces mud formation.
- Reduces heaves and breakups due to seasonal changes in weather conditions.
- Roads sealed with Sika® Dust Seal-100 SH 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

Chemical base	Modified lingosulphonate polymers
Packaging	Bulk
Appearance / Colour	Liquid, brown
Shelf life	8 months from date of production
Storage conditions	Store properly in undamaged, unopened, original, sealed containers at temperatures between +5°C and +35°C. Protect from direct sunlight and frost.

Density ~ 1.1 kg/l at 20°C

pH-Value 8-10

APPLICATION INFORMATION

Consumption

The amount of Sika® Dust Seal-100 SH to be used depends mainly on the road type, soil condition and the excavation equipment. Consumption stated below is in lt of Sika® Dust Seal-100 SH.

Soil classification	First spreading of Sika® Dust Seal-100 SH (lt/m²)	Maintenance spreadings with Sika® Dust Seal-100 SH (lt/m²)
Mainly dust suppression		
plastic	0,25 - 0,80	0,15 - 0,25
slightly or non-plastic	0,50 - 0,80	0,25 - 0,40
Mainly soil stabilization	0,80 - 1,60	0,30 - 0,50

Average estimated consumption of Sika® Dust Seal-100 SH: ~0,5-1 lt/m²

APPLICATION INSTRUCTIONS

APPLICATION

Sika® Dust Seal-100 SH offers best results when soil is slightly damp. If binding soil is to be added, spreading should take place shortly afterwards.

Application of Sika® Dust Seal-100 SH is done by means of spraying from a tank truck.

Grade the surface up to remove 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-100 SH is done before the first grading, to soften the surface.

Blade most of the loose material into windrows on both sides of the road to prevent run-off valuable Sika® Dust Seal-100 SH and to assure uniform penetration down into the subgrade.

After windrows are formed, Sika® Dust Seal-100 SH is applied by spraying it on the road from a tank truck.

For best results, Sika® Dust Seal-100 SH must be mixed well with the soil.

a) Moderate stabilization against dust formation: In cases of low-degree stabilization against dust formation (at a level of 2-3 cm), the product is applied in one layer, followed by excavation.

b) Ground stabilization in higher depth: In cases of stabilization up to 7-8 cm, you can:

i) Spray on the soil 1/3 – 1/2 of the total quantity of Sika® Dust Seal-100 SH that is demanded for the whole road surface

ii) Compact the soil using either mechanical means, or by releasing it to free traffic load. Compaction should take place prior to the drying of the applied Sika® Dust Seal-100 SH.

iii) Use the rest of the quantity of material for stabilization of dust during excavation phase.

c) Stabilization prior to the final asphalt/ concrete paving: Sika® Dust Seal-100 SH can be used in cases of stabilization prior to asphalt/ concrete paving on road surface, as it offers stability on the underground level and increases the life-time of the final paving. In such a case, it is recommended to add aggregates and stabilize the top 2,5-3cm of the road to provide a good hard wearing surface.

IMPORTANT CONSIDERATIONS

- Strength of the treated road increases proportionally with the quantity of Sika® Dust Seal-100 SH that is added.
- Maximum, strength improvement is done through incorporation of 2-3% Sika® Dust Seal-100 SH b.w. of the soil on which is applied.
- The final stabilization result is affected by the equipment, the soil type and the environmental conditions that prevail. Trials are recommended in all cases before using the material on all the surface that is to be treated.

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 description of the application fields.

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.

Sika Hellas ABEE
15 Protomagias Str.
14568 Kryoneri
Attica-Greece
Tel.: +30 210 8160 600
Fax: +30 210 8160 606
www.sika.gr | sika@gr.sika.com



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