V.S. WATERTREATMENT MANAGEMENT CO.

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VS WR-50

WATERPROOFING **CHEMICALS**

Description

VS-WR-50 is a solvent less versatile polymer of functional siloxane which is intended primarily for in-plant water-repellent treatment of aerated concrete. It may also be diluted with organic solvents for use as a water repellent for facades

Physcial/Chemical Specifications

VS-WR-50

Appearance	Clear to slight hazy
Viscosity	15cps.
RI	1.398
Active content	100%
Sp. Gravity	1.03

The figures are intended as a guide and should not be used in preparing specifications.

Applications

- Water barrier coat
- Additive for water base masonry coating
- All kind of concrete
- Sand – lime brickwork
- Aerated concrete
- Cement fiberboards

Features

- Excellent stability
- Alkaline resistance
- Solvent less

Processing

Water-repellent admixture for aerated concrete VS-WR-50 develops full water-repellent properties when admixed as a masterbatch to the concrete slurry (approx. 20% content of VS-WR-50). The addition of just 0.1 - 0.2%

VS-WR-50, expressed in terms of the solids content, is sufficient to dramatically reduce water absorption by the aerated concrete and to optimize its pore structure.

Guide formulation for Master batch:

133 parts VS-WR-50

467 parts water

53 parts sand

13 parts lime

Aerated concrete:

1065 parts sand

750 parts water

67 parts cement

270 parts lime

7.5 parts master batch

2 parts Aluminum

Product Safety, Handling & Storage

As the product contains solvents, the relevant regulations on the handling of such products should be observed. Correctly stored in its original unopened container VS WR 50 has a shelf life of 12 month from the date of manufacturing.

Toxicological Data

VS-WR-50 has low order of toxicity and should pose no hazard Incidental to industrial handling if reasonable cleanliness and care is observed. The acute oral toxicity is not determined.

Packaging

Available in 50 & 200 kg sealed HDPE container.

Note

The data and statements contained herein are based on our research and/or the research of others, and are believed to be accurate. No guarantee of their accuracy is made however, and unless expressly stated in a written contract, the product(s) discussed herein are sold without conditions or warranties, expressed or implied. Purchasers are advised to make their own tests to determine the suitability of this product for their particular purposes. Nothing contained herein shall be construed as a recommendation to use or as a license to operate under or to infringe on any existing patent.

VSWMCO

Waterproofing Soil Treatment

VS-WR-50

VS-WR-50 is a liquid, organo-silane concentrate that hardens and waterproofs virtually any bulk soil.

Use Guide

VS-WR-50 is ideal for:

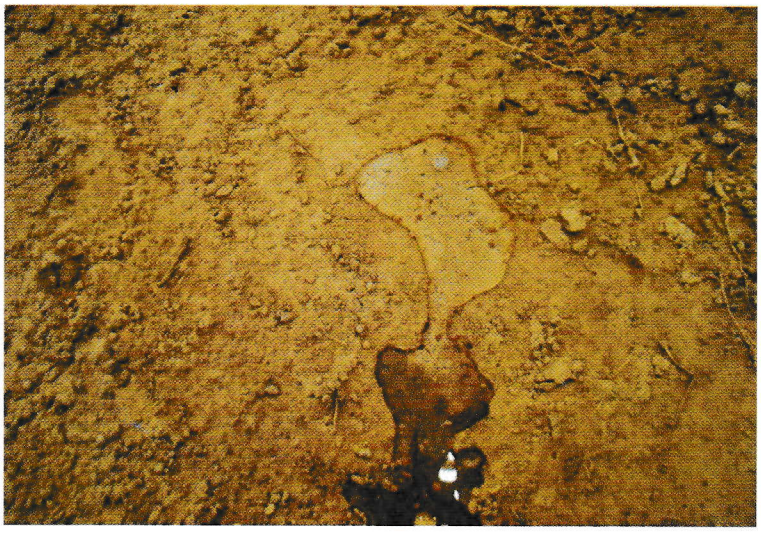
- Roads with light traffic: side streets, field turn rows, forest trails, access roads, and factory roads
- Soil bases of new asphalt and concrete road construction
- Waterproofing subsistance garden subsoil in arid growing conditions
- Strengthening irrigation canals, drainage ditches, earthen dams, and berms

Product Description

VS-WR-50 is a soil waterproofing agent that protects against rain, capillary rise, and freezing. It mixes well with virtually any bulk soil to make it uniformly water-repellent, or hydrophobic. It provides a cohesive quality to soil particles that solidifies treated areas, however, it does not enhance the natural compressive strength of the soil. Once treated, water is repelled from the soil and the area does not soften, even after a sustained, heavy rain. Soil treated with VS-WR-50 also remains protected from capillary rise and frost damage.

Applications

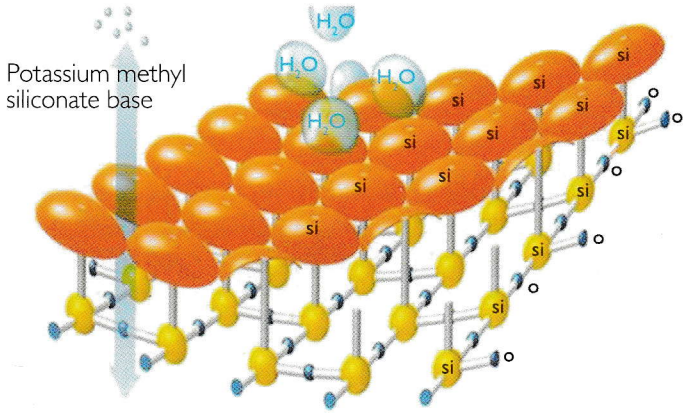
This product opens up new possibilities in road construction for the repair and construction of dirt roads. VS-WR-50 impregnation is ideal for roads with light traffic, e.g. side streets, field and forest roads, access roads and factory roads. VS-WR-50 is also an excellent stabilizing agent for treating soil bases of new asphalt and concrete road construction. VS-WR-50 greatly reduces the expansion and contraction of soils so that asphalt and concrete surfaces last longer.



VS-WR-50 bonds permanently to soil particles.
Environmentally Friendly: no runoff or leaching.

Application	Recommendation
Berms, dams, levees	• •
Irrigation canals	• •
Drainage ditches	• •
Subsoil water barrier (Agriculture—drainage, salt percolation)	• • •
Road pothole repair (subsurface)	• •
Paved road substructure	• •
Unpaved road substructure	• •

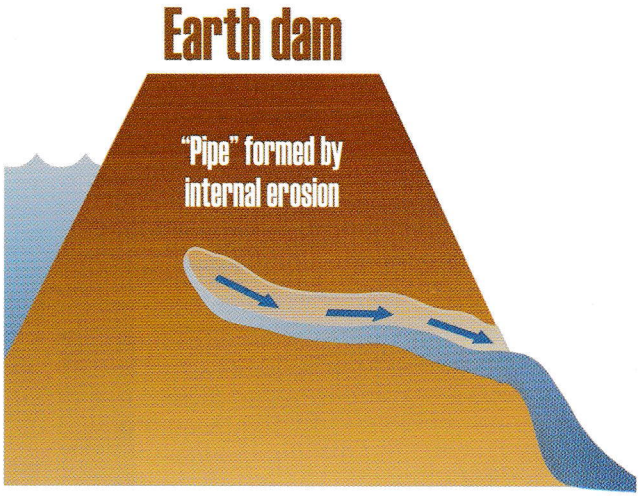
Legend: • light duty • • medium duty • • • heavy duty



VS-WR-50 Molecular Structure

In addition to roads, VS-WR-50 has a variety of important uses for enhancing other soil structures. Irrigation canals, drainage ditches, earthen dams, and berms are stronger when their soil structures remains dry.

In subsistence agricultural applications, VS-WR-50 has been shown to conserve as much as 50% of valuable water resources. By treating the subsoils for gardens and small crop growing areas, water seepage through porous, sandy subsoils is avoided. Water stays in the topsoil around the rhizome area where it is best used by the plant. Salts and minerals that contaminate soils thrugh capillary actionn are blocked.



VS-WR-50 can help strengthen berms, dams, and levees from internal erosion. Test results show treated soils to be impermeable at a depth of 15 feet.

Properties

VS-WR-50 is a liquid concentrate based on potassium methyl siliconate. It is diluted with water into a solution and mixed prior to application. The product works well with both clay-based and sandy soils to deliver its water repellent characteristics and condition the soil to be a full-function gravel substitute.

VS-WR-50 delivers total water repellency when applied on conditioned, cohesive gravel. Capillary water uptake is prevented, resulting in permanent loadbearing strength, stability and frost resistance.

How to Apply

The soil should be tilled to the desired depth before VS-WR-50 is mixed into the soil. The depth to which the soil is treated depends on the anticipated use. Contact VSWMCO for more information on recommended treatment depths. Soil testing must be conducted to determine the amount of product required. Soil with high organic matter content will harden but will not strengthen suitably to support traffic. Organic material, large stones and other items which can make the mixture less homogenous should be removed. Treated areas should be compacted following application—no waiting for settling or shrinkage.

When treating soil treated with VS-WR-50, observe standard earthwork and road construction rules regarding crowning and grading. Do not apply when raining or temperature is below freezing. In the event of rain, cover or compact treated area and allow to dry before resuming work.

To prevent seepage and water loss for crops areas, irrigation canals and ponds, the soil is dug up; a layer of VS-WR-5 is put in place, and the overlaying soil is replaced.

Storage

VS-WR-50 should be stored in iron drums, plastic or glass containers. Tinplate, aluminum, galvanized, or lacquered containers are not suitable. If crystals form due to low storage temperatures, they will dissolve when the product is allowed to warm up. The product must then be stirred thoroughly before use.

The "Best use before" date on each batch is displayed on th product label. Storage beyond the date specified on the labe does not necessarily mean that the product is no longer us-able. In this case, however, the product must be checked fo quality assurance.

Safety notes

Comprehensive instructions are given in the correspondin Material Safety Data Sheets. They are available on request from VSWMCO.

Packaging

30 Kg
250 Kg

Additional information

VS-WR-50 should be used in accordance with its stated purpose. All regulations must be complied with.

Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose.

Product Data

Typical General Characteristics

Characteristics	Value
Appearance	Clear to hazy, colorless
Solids content	32.5 %
Solvent	Water
Density at 25 °C, at 1013 hPa	1,238 g/cm³
pH-Value	14

These figures are only intended as a guide and should not be used in preparing specifications.