

WaterRepel 201[®]

Waterproofing Soil Treatment

Product Description

WaterRepel 201 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 WaterRepel 201 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. WaterRepel 201 impregnation is ideal for roads with light traffic, e.g. side streets, field and forest roads, access roads and factory roads. WaterRepel 201 is also an excellent stabilizing agent for treating soil bases of new asphalt and concrete road construction. Water Repel 201 greatly reduces the expansion and contraction of soils so that asphalt and concrete surfaces last longer.



WaterRepel 201 bonds permanently to soil particles.
Environmentally Friendly: no runoff or leaching.

WaterRepel 201 is a liquid, organo-silane concentrate that hardens and waterproofs virtually any bulk soil.

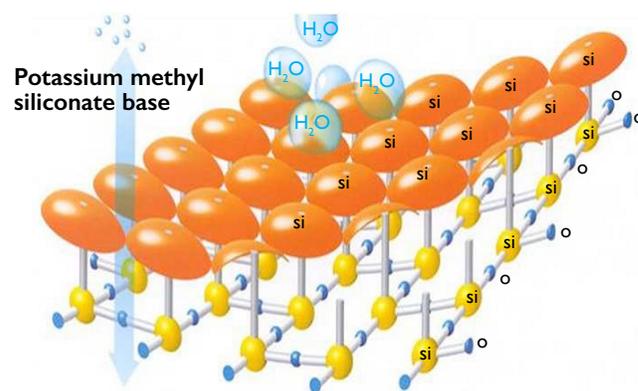
Use Guide

WaterRepel 201 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 subsistence garden subsoil in arid growing conditions
- Strengthening irrigation canals, drainage ditches, earthen dams, and berms

| 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 | •• |

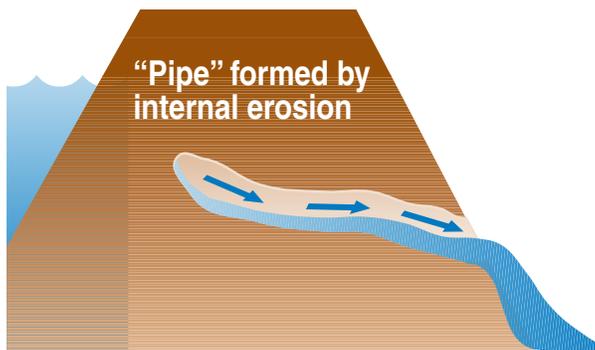
Legend: • light duty •• medium duty ••• heavy duty



WaterRepel 201 Molecular Structure

In addition to roads, WaterRepel 201 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, WaterRepel 201 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 through capillary action are blocked.



WaterRepel 201 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

WaterRepel 201 is a liquid concentrate based on potassium methyl silicate. 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.

WaterRepel 201 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 WaterRepel 201 is mixed into the soil. The depth to which the soil is treated depends on the anticipated use. Contact L&Q 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 WaterRepel 201, 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 WaterRepel 201 is put in place, and the overlaying soil is replaced.

Storage

WaterRepel 201 should be stored in iron drums, plastic or glass containers. Tinsplate, 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 the product label. Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case, however, the product must be checked for quality assurance.

Safety notes

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from L&Q.

Packaging

30 Kg / 66 lbs. Can
250 Kg / 550 lbs. Drum
1,150 Kg / 2,530 lbs. Tote

Additional information

WaterRepel 201 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

| | Value |
|-------------------------------|--------------------------|
| Appearance | Clear to hazy, colorless |
| Solids content | 32.5 % |
| Solvent | Water |
| Density at 25 °C, at 1013 hPa | 1,238 g/cm ³ |
| pH-Value | 14 |

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

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L&Q provides a suite of cost-effective soil products and solutions that address critical infrastructure needs.