

ROAD TECH 2000

ROAD STABILIZER

October, 04 Page 1 of 3

PRODUCT

ROAD TECH 2000 is a natural biological product, which is used as a stabilizer in the construction or maintenance of roads using locally available materials. ROAD TECH 2000 is a liquid based on specially selected naturally occurring microbes that consume the organic materials present in soils and exude a material that effectively binds the soil particles together. The binding action also makes the soil particles hydrophobic, reducing the effect of water on both the road surface material and the base course material.

USES AND ADVANTAGES

ROAD TECH 2000 is used in the construction and maintenance of roads where local materials are not of the optimum quality for road construction, but the use of imported materials to upgrade the road base is not economical. Typical uses include:

- Rural and secondary roads
- Sub-base preparation for asphalt sealing
- Mining roads
- Forestry roads
- Road shoulders to existing asphalt roads
- Temporary by-pass roads
- Airstrips
- Dairy tracks
- Feedlots
- Landfill sites

The use of ROAD TECH 2000 in road construction and maintenance offers many advantages over conventional road sealing methods. The advantages include:

- The microbial nature of ROAD TECH 2000 results in a very low dosage rate being needed.
- Because it is based on totally natural ingredients ROAD TECH 2000 does not adversely affect the environment.
- Homogeneous stabilization is achieved by the ability of the microbes to permeate through the road surfacing material.
- No specialized equipment is needed. ROAD TECH 2000 is applied in the normal watering process during road construction or repair.
- After treatment with ROAD TECH 2000 the road surface does not become slippery during wet weather, and dust is reduced during dry weather.
- Road maintenance is reduced.
- Road life is increased.
- The stabilized surface is compatible with asphalt seal coats.

Product performance is affected by many factors, including storage, method and conditions of application and use. User testing is ESSENTIAL to determine suitability of product for intended method of application and use. Target's SOLE WARRANTY is that the product has been manufactured to specifications. No oral or written information or advice shall increase this warranty or create new warranties. Target's SOLE LIABILITY is to replace product proved defective. In no event shall Target be liable for any consequential, indirect or other damages whether arising from negligence or otherwise.

TARGET is a registered trade-mark of Tegrat Holdings Ltd. Target Products Ltd. is an authorized licensee.



ROAD TECH 2000

ROAD STABILIZER

October, 04 Page 2 of 3

APPLICATION PROCEDURES

Before commencing application of ROAD TECH 2000, tests are done to determine the geological make-up of the soil. Tests include sieve analysis, plasticity index, optimum moisture content (OMC), pH and any other tests relevant to local conditions. ROAD TECH trained personnel assess the optimum rate of application of ROAD TECH 2000 for each installation. Factors considered include clay types, prevailing weather conditions and anticipated traffic volumes. After evaluation and approval of the road material the installation steps are:

1. Use a grader to rip or tyne the road surface to the required treatment depth – usually 100 to 200 mm. The depth depends on anticipated traffic loads and volume. The full width of the road should be ripped and treated to ensure that the shoulders perform as well as the centre of the road.
2. Use a drum roller, grader or disc harrow to break up the large lumps of road material until a workable texture is achieved.
3. Push the material into windrows with the grader.
4. Calculate the theoretical amount of water required to bring the road material to OMC. Add 60 to 70% of the theoretical amount to the water truck, and mix in the calculated amount of ROAD TECH 2000. Note that ROAD TECH 2000 has improved wetting properties, meaning that less water may be required to achieve OMC.
5. Apply the water + ROAD TECH 2000 using conventional procedures. More water (without additional ROAD TECH 2000) may be applied if needed to achieve OMC.
6. Thoroughly mix the moistened material using a disc harrow or grader blade to ensure uniformity.
7. Lay out the surface to the required contour using a grader. A cross fall of 5 degrees is recommended for unsealed roads. The road is then compacted using normal compaction techniques.
8. After compaction the surface should be trimmed by grader if required. Use additional ROAD TECH 2000 in water to slurry seal the surface to treat any soil brought in from the edges during trimming.

An asphalt seal coat may be added after a suitable dwell period. If no asphalt is to be used it is strongly recommended that an application of river sand or coarse gravel or stone be added as a wear surface.

T
A
R
G
E
T

P
R
O
D
U
C
T
S

L
T
D

Product performance is affected by many factors, including storage, method and conditions of application and use. User testing is ESSENTIAL to determine suitability of product for intended method of application and use. Target's SOLE WARRANTY is that the product has been manufactured to specifications. No oral or written information or advice shall increase this warranty or create new warranties. Target's SOLE LIABILITY is to replace product proved defective. In no event shall Target be liable for any consequential, indirect or other damages whether arising from negligence or otherwise.



ROAD TECH 2000

ROAD STABILIZER

October, 04 Page 3 of 3

COVERAGE

When applied at the typical rate of 1 litre per 3 cubic metres (1 US gallon per 8.67 cubic yards), the coverage achieved by ROAD TECH 2000 is:

- 30 square metres per litre at 100 mm deep
- 95 square yards per US gallon at 4 inches deep.

At this application rate, a road 20 feet (6.1 m) wide treated to a depth of 4 inches (100 mm) will require the following approximate quantities of ROAD TECH 2000:

- 85 US gallons per mile or 200 litres per km.

CAUTION

- Road material must be evaluated by qualified ROAD TECH 2000 personnel to determine its suitability and optimum treatment rates before proceeding with application of ROAD TECH 2000.
- The clay content of the road material is important. Clay contents of less than 6 percent are not usually suitable.
- Do not install ROAD TECH 2000 when the soil temperature is less than 7.5°C (45.5°F). The optimum temperature range at the time of application is 7.5 to 50°C (45.5 to 122°F).

PACKAGING

ROAD TECH 2000 is available in 20 litre (5.3 US gallon) containers or 200 litre (53 US gallon) drums.

SAFETY

In a report dated 21/12/95, ROAD TECH 2000 was classed by the CSIRO (Commonwealth Scientific and Industrial Research Organization) in Australia as "... non-pathogenic towards plants or animals." After application, ROAD TECH 2000 is 82% biodegradable within 14 days, and residues may be disposed of to sewer or stormwater systems or dispersed over ground. During application, PVC or rubber gloves are recommended when handling the concentrate, or when the operator is exposed to diluted solutions for long periods of time. See product Material Safety Data Sheet for more information.

T
A
R
G
E
T

P
R
O
D
U
C
T
S

L
T
D

Product performance is affected by many factors, including storage, method and conditions of application and use. User testing is ESSENTIAL to determine suitability of product for intended method of application and use. Target's SOLE WARRANTY is that the product has been manufactured to specifications. No oral or written information or advice shall increase this warranty or create new warranties. Target's SOLE LIABILITY is to replace product proved defective. In no event shall Target be liable for any consequential, indirect or other damages whether arising from negligence or otherwise.

