

T-PRO® 550 TECHNICAL DATA SHEET

1. PRODUCT NAME: T-PRO® 550, Soil Stabilizing Polymer

2. MANUFACTURER:

Terratech, Inc.
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3. PRODUCT DESCRIPTION

T-PRO 550 is an eco-safe, non-toxic, high performance polymer emulsion designed specifically for soil stabilization and dust suppression in a variety of soil types. T-PRO 550 is designed to increase surface hardness and bearing capacity as a wear course in unpaved road applications. It provides outstanding performance and cost effective maintenance of unpaved roads and surfaces in a range of applications from road construction to soil erosion and particulate emission control.

T-PRO 550, when used in accordance with stated preparation and installation instructions, can be applied to a range of soil types and various climactic conditions. It is highly water resistant and when cured, remains stable under wet conditions without breakdown of the soil/polymer matrix or leaching of polymer product.

4. COMPOSITION:

T-PRO 550 is a proprietary blend of high performance polymers and additives designed to bind soil particles into a cohesive matrix. T-PRO 550 is a unique, environmentally friendly product designed to stabilize soil and create improved surface conditions of unpaved roads. It poses neither physical nor health hazard and is therefore considered non-hazardous according to the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard 29 CFR 1910.1200. In detail, the non-hazardous characteristics of the polymer can be classified as:

- Environmentally safe
- Non-leaching or dissipating
- Non-hazardous
- Non-toxic to animals
- Non-inhibitive to plant growth
- Non-flammable
- Non-corrosive
- Non-tracking

5. BENEFITS

T-PRO 550 is cost effective and easy to use. The polymer cures rapidly for minimal traffic interruption in road stabilization and repair projects. The polymer solids are applied in a solution and as the water evaporates during curing, the polymer molecules coalesce and form strong bonds between the soil and aggregate particles. The benefits of T-PRO 550 include:

- Longer lasting roads
- Less rutting, spalling and raveling of road surface
- Erosion control

- Dust suppression and particulate emission control
- Reduced infiltration and improved run-off
- Increased load bearing capacity
- Increased road smoothness and ride quality
- Decreased wear on vehicles
- Easy to install
- Low-maintenance
- Non-toxic and non-hazardous

6. PACKAGING AND SHIPPING

The polymer can be shipped in 258 gal (976 liter) totes. Shipping T-PRO 550 does not require special handling or permits.

7. HANDLING AND STORAGE

When storing, keep product from freezing and direct sunlight. T-PRO 550 should be stored in temperatures ranging between 40 °F and 110 °F (+4.4°C and +43.3°C) for best performance and to prevent separation.

8. LIMITATIONS

Product performance is based on vehicular traffic, soil properties, and proper drainage on and adjacent to the road surface. Some soils do not lend themselves to stabilization with polymers and exhibit poor performance in long term applications. Performance criteria should be established at the beginning of the project to delineate limitations of the application as a function of project specific variables. If questions arise, check with Terratech technical department prior to use.

9. CHEMICAL PROPERTIES

Physical Form	Liquid
Color	White
Odor	Characteristic
Flash Point	Not applicable
Vapor Pressure	17 mmHg @ 20°C
Solubility in Water	Miscible in all proportions
pH	6.0 – 9.0
Viscosity	< 500 cSt (estimated)
Total Solids	> 50%
Specific Gravity	0.95 – 1.10
Minimum Film Form Temperature	7° C (45° F)
Particle Size	125 nm

10. ENVIRONMENTAL DATA AND MSDS

T-PRO 550 is a water based dispersion of an latex copolymer. It is not classified as a “Hazardous Chemical” as defined by the OSHA Hazard communication standard 29 CFR 1910.1200. T-PRO 550 has no eco-toxic effects, is non-bioaccumulative, and poses no long term health effects when properly handled in accordance with manufacturers instructions.

T-PRO 550 is:

- Water based;
- Non-combustible;
- Non-reactive; and
- Stable under recommended storage conditions

T-PRO 550 may contain low levels of VOC’s or ammonia which evaporate during application and drying and therefore should always be handled in a well ventilated space. Standard personal protection rules apply when working with polymers, eye and skin protection should be worn when working with any type of chemical substance. For a complete ecological information and handling instructions, please see the MSDS.

11. INSTALLATION

The Terratech design team focuses on each client and each project individually to develop protocols that suit the job and the site conditions. Terratech designs, tests and develops the best methodology for each project to meet the performance objectives. Based on project performance objectives, there are two primary means of polymer application, infused and topical.

The infused application, as it implies, involves the mechanical intermixing of liquid polymer solution with the soil subgrade to a single lift thickness of 4 to 6 inches (8-15 cm) which is then compacted in place and left to cure for a minimum period of 72 hours, based on temperature and other ambient conditions.

The topical application consists of a sprayed in-place polymer solution over a prepared subgrade. The application requires a minimum of 24 hours of cure time. The topical installation may involve a single spray-on application or several successive applications with varying polymer concentrations based on the infiltration characteristics of the soil profile.

12. REGULATORY STANDARDS

- i. German Regulation for Food Contact BfR Recommendation XIV
- ii. German Regulation for Food Contact BfR Recommendation XXXVI
- iii. US FDA 21 CFR 175.105
- iv. US FDA 21 CFR 176.170
- v. US FDA 21 CFR 176.180

13. WARRANTIES

Warranty information is project specific. Please contact Terratech for further information.

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