TERRATHANE™
GEOTECHNICAL POLYURETHANE

24-015
Technical Data Sheet

TERRATHANE™ Polyurethanes

TerraThane™ Polyurethanes by NCFI are uniquely formulated for a variety of geotechnical applications. Each batch goes through stringent testing and quality assurance standards to ensure reliability in the field.

About 24-015

NCFI 24-015 is a low viscosity, polyurethane injection resin designed to stabilize soil. When mixed with catalyst and injected, it migrates through loose soil and into below-grade voids. As it comes into contact with moisture, NCFI 24-015 reacts and expands to form a rigid foam.

24-015 APPLICATIONS

Stabilize soil before excavation

Seawall Stabilization

Stabilize and Prevent Water Migration Through Earthen Dams

Seal leaks in sub-grade walls

Tie Back Anchors Soil strengthening

Typical Reaction Properties

Hand Mix @72°F, 25g Stabilizer 1g Water

Weight Activator %	Cream (s)	Rise (s)
0.5	155	220
1.0	68	150
4.0	20	92
10.0	9	48

24-015 UNIQUE ADVANTAGES

- Contains No Solvents
- Very Low Viscosity for Good Penetration
- Cure Time Controlled by Catalyst Ratio
- Encapsulates and Strengthens Loose Soil
- Forms a Water-tight Barrier to Stop Water Migration
- Good Resistance to Chemicals
- Contains no TDI
- 1100 psi Compressive Strength (ASTM D1621) in sand

Performance

Wet Environments... **Excellent**

Lifting Capacity... **Fair**

Chemical Resistance

Solvents... **Good**

Mold and Mildew... **Good**

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Component Properties

Component	24-015 A	24-015 B
Appearance	Lt Brown Liquid	Clear, Light Yellow Liquid
Brookfield Viscosity @ 20rpm	100 cps at 72°	100 cps at 72°
Specific Gravity	1.192	1.218
Weight per Gallon	9.93 lbs	10.15 lbs
Shelf Life	6 months	6 months

Additive Guidelines

Weight Activator %	Ounces Activator/ Gallon Soil Stabilizer
0.5	0.6
1.0	1.3
4.0	5.0
10	12.5

*NCFI 24-015 B is a catalyst that causes the Soil Stabilizer to react with ambient moisture. Once activated, NCFI 24-015 A will react with any available water, including humidity in the air. To minimize loss caused by its reaction with ambient moisture, mix and use material in small batches. If a crust forms on the top of the mixed material, it will act as a temporary seal and inhibit curing of the liquid below the crust. If a crust forms, leave it intact until the liquid under the crust has been pumped. Once NCFI 24-015 A has been activated with NCFI 24-015 B, it should never be left in pumps or stored for more than a few hours.

Storage and Handling

Keep temperature of chemicals at 70ºF for several days before use. Cold chemicals can cause poor mixing, pump cavitation or other process problems due to higher viscosity at lower temperatures. Absolutely no thinners should be added to this 100% solids system. Viscosity can be reduced by an increase in temperature. The 'A' component is sensitive to exposure to moisture. Keep drums tightly closed when not in use and under nitrogen pressure of 2 - 3 psi after they have been opened. Prolonged exposure to temperatures below 50ºF can cause the 'A' component to freeze. Do not store in direct sunlight.

Application Cautions

Careful consideration should be given to selection and application of any NCFI Polyurethane foam system where excessive foam mass build-up can occur. Excessive polyurethane foam lift thickness will result in high internal temperatures within the injected foam, which can result in degraded foam properties, or in extreme cases, fire or spontaneous combustion. **Any flammability rating contained in this literature is not intended to reflect hazards presented by this or any other material under actual fire conditions.** Each person, firm or corporation engaged in the application, installation or use of any polyurethane product should carefully determine whether there is a potential fire hazard associated with such product in a specific usage, and utilize all appropriate precautionary and safety measures. Please consult NCFI Polyurethanes for safety considerations, polyurethane system selection and application recommendations.

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