TERRATHANE™ 24-011

Technical Data Sheet

TERRATHANE™ Product Line

The TerraThane™ product line is comprised of uniquely formulated, dual-component systems formulated for a variety of geotechnical applications, such as lifting, soil compaction, void filling, and I/I mitigation. Each batch goes through stringent testing and quality assurance standards to ensure reliability in the field.

TERRATHANE™ 24-011

TerraThane™ 24-011 is a 5lb hydrophobic / hydro-insensitive, MDI-based, water blown system that is formulated for exceptional spread and lifting capacity. The hydrophobic nature of 24-011 allows it to maintain exceptional physical properties even in saturated conditions. Available with NSF/ANSI 61 Section 5 – 2017 certification.

APPLICATIONS

Bridge Approaches and Departures
Highway and Streets
Airport Runways and Taxiways
Concrete Slab Lifting
Joint Matching
Void Filling
Deep Soil Injection

CERTIFIED TO NSF/ANSI 61

*Upon request

UNIQUE ADVANTAGES

Hydrophobic / Hydro-Insensitive
Certified to NSF/ANSI-61
Contains No Solvents
Strengthens Loose Soil
Water Blown System

Reactivity at 110°F

Cream Time	5-8 seconds
Gel Time	11-15 seconds
Tack Free Time	16-19 seconds
Rise Time	25-30 seconds

Chemical Resistance

Solvents…	Excellent
Mold and Mildew…	Excellent

Performance

Wet Environments…	Excellent
Lifting Capacity…	Excellent

Physical Properties

Physical Properties	Test Method	Free Rise	Restrained
Density	ASTM D1622	5.0 pcf	6 – 7 pcf
Compressive Strength	ASTM D1621	112 psi	115 – 130 psi
Compressive Modulus	ASTM D1621	2200 psi	2350 psi
Tensile Strength	ASTM D1623	128 psi	130 – 145 psi
Tensile Modulus	ASTM D1623	2900 psi	3100 psi
Water Absorption	ASTM D2842	≤0.04 lbs/ft^2	≤0.04 lbs/ft^2
Closed Cell Content		>94%	>94%
Max Service Temp		200°F	200°F
Elongation	ASTM D1623	7%	
Shear Strength	ASTM C273	72 psi	80 – 90 psi
Shear Modulus	ASTM C273	800 psi	950 psi

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Special Testing

NYDOT Hydro-Insensitivity test, GTP-9	**>97% density retention** **>94% comp strength retention**

Dimensional Stability, % volume change, 28 days aging (ASTM D-2126)	Heat age at 158°F	Freezer at -20°F	Humid age at 100% RH & 120°F
	-1.4%	-0.1%	-1.0%

Component Properties

Component	B-24-011	A2-000
Appearance	Transparent Liquid	Clear Brown Liquid
Brookfield Viscosity @20rpm	550 cps at 72°F	200 cps at 72°F
Specific Gravity	1.053	1.24
Weight per Gallon	8.79 lbs	10.3 lbs
Storage Temperature	50-100°F	50-100°F

Mix Ratio

By weight… 118 parts A-side: 100 parts B-side

By volume… 100 parts A-side: 100 parts B-side

Processing Parameters

A-side Temperatures	100 – 120°F
B-side Temperatures	100 – 120°F
Mixing Pressure	1000 psi static 800 psi dynamic

Storage and Handling

For optimum shelf life, the recommended storage temperature is 50°F to 100°F. **Do not expose A-side to lower temperatures – freezing may occur.** Avoid moisture contamination during storage, handling, and processing. After opening, pad the containers and day tanks with either nitrogen or dry air (desiccant cartridge or air dryer @ -40°F dew point).

Store components at 70°F to 90°F for several days prior to use to minimize viscosity issues.

Shelf life of B-side is 6 months and A-side is 2 years for factory sealed containers.

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.