TERRATHANE™ 24-035

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™ 24-035

NCFI 24-035 is a two-component, water blown, MDI-based spray polyurethane-polyurea hybrid system designed for use as a high strength backing material or primary surface material for stabilizing masonry surfaces. NCFI 24-035 has been formulated to spray at 6 – 8 pcf based on lift thickness.

APPLICATIONS

Backing Material
Stabilizing Masonry Surfaces
Manhole Lining
Pipe and Culvert Lining

UNIQUE ADVANTAGES

Polyurethane / Polyurea Hybrid
Exceptional Adhesion
Contains No Solvents
Water Blown System

Reactivity at 130°F

Cream Time	1 second
Gel Time	2 seconds
Tack Free Time	3 seconds
Rise Time	3 seconds

Chemical Resistance

Solvents…	Excellent
Mold and Mildew…	Excellent

Performance

Wet Environments…	Excellent
Adhesion…	Excellent

Physical Properties

Physical Properties	Test Method	Free Rise
Density	ASTM D1622	6 – 8 pcf
Pull Off Strength to:		
Dry Masonry Surface	ASTM D4541	400 psi
Wet Masonry Surface	ASTM D4541	145 psi
Scheduled 80 Galvanized Steel	ASTM D4541	131 psi
Aluminized Steel	ASTM D4541	145 psi
Neoprene	ASTM D4541	102 psi
HDPE	ASTM D4541	93 psi
Smooth PVC	ASTM D4541	223 psi
Sanded PVC	ASTM D4541	298 psi
Water Absorption	ASTM D2842	≤ 0.03 lbs/ft2
Closed Cell Content		>94%
Max Service Temp	ASTM D790	180º
Skin Shore Hardness		55 Shore A 12 Shore D

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Special Testing

SEVERE Wastewater Analysis Testing (ASTM D-2842)	**- No Visible Deterioration (foam color change to green)** **- Compressive Strength Loss = 0%** **- Tensile Strength Loss = 18%**

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
	-1.5%	-0.1%	-1.0%

Component Properties

Component	B-24-035	A2-000
Appearance	Transparent Liquid	Clear Brown Liquid
Brookfield Viscosity @20rpm	700 cps at 72°F	200 cps at 72°F
Specific Gravity	1.06	1.24
Weight per Gallon	8.85 lbs	10.3 lbs
Storage Temperature	50-100°F	50-100°F

*24-035 is not ASTM E-84 flame spread rated and is not to be used in applications governed by building codes.

** 24-035 has been formulated to spray at 6 – 8 pcf depending on lift thickness.

***Actual machine spray pressure settings may vary depending on module/chamber size or ambient conditions.

Mix Ratio

By weight… *117 parts A-side: 100 parts B-side*

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

Processing Parameters

A-side Temperatures	110 – 140°F
B-side Temperatures	110 – 140°F
Mixing Pressure	1100 – 1500 psi static 800 – 1200 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.