

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 24-010

TerraThane™ 24-010 is a water blown, all PMDI-based geotechnical polyurethane designed for quick expansion and pinpoint control for structural lifting and leveling. 24-010 is available with an NSF/ANSI 61 Section 5 - 2017 certification.

24-010 APPLICATIONS

- Fast Expansion Design
- High Control for Structural Lifting
- Excellent Physical Properties
- Sidewalks
- Driveways
- Concrete Slab Lifting



**CERTIFIED TO
NSF/ANSI 61**
*Upon Request

Reactivity at 110°

Cream Time	1 second
Gel Time	7 Seconds
Tack Free Time	12 Seconds
Rise Time	17 seconds

Physical Properties

Physical Properties	Test Method	Free Rise	Restrained
Density	ASTM D1622	2.8 pcf	3.9 pcf
Compressive Strength	ASTM D1621	25.7 psi	60.5 psi
Compressive Modulus	ASTM D1621	695 psi	1714 psi
Tensile Strength	ASTM D1623	64.5 psi	78 psi
Tensile Modulus	ASTM D1623	96 psi	
Water Absorption	ASTM D2842	≤ 0.08 lbs/ft ²	≤ 0.08 lbs/ft ²
Closed Cell Content		>90%	>90%
Max Service Temp		180° F	180° F
Elongation	ASTM D1623	7.0%	
Shear Strength	ASTM C273	38.7 psi	
Shear Modulus	ASTM C273	486 psi	
Flexural Strength	ASTM D790	57.8 psi	
Flexural Modulus	ASTM D790	1279 psi	



Performance

Wet Environments... **Fair**

Lifting Capacity... **Excellent**

Chemical Resistance

Solvents... **Excellent**

Mold and Mildew... **Excellent**

Component Properties

Component	B-24-010	A2-000
Appearance	Clear Amber Liquid	Clear Brown Liquid
Brookfield Viscosity @ 20rpm	600 cps at 72°	200 cps at 72°
Specific Gravity	1.08	1.24
Weight per Gallon	8.9 lbs	10.3 lbs
Storage Temperature	60° - 90°F	60° - 90°F

Mix Ratio

By weight....100 parts poly : 116 parts iso

By volume...100 parts poly : 100 parts iso

*Using standard spray equipment with 1/1 by volume proportioning pumps capable of maintaining 800-1200 psi dynamic pressures. The Graco Reactor E20-series or better with a GX-7 gun is preferred equipment. NCFI 24-010 B is connected to the resin/polyol pump with the NCFI A being connected to the isocyanate pump.

Processing Parameters

ISO Temperature	110° - 140°F
Poly Temperature	110° - 140°F
Mixing Pressure	1000 psi static, 800 psi dynamic

Storage and Handling

Store the poly from 50°F to 90°F. Avoid moisture contamination during storage, handling, and processing. For both components, pad containers and day tanks with either nitrogen or dry air (desiccant cartridge or air dryer @ -40°F dew point). For optimum shelf life, the recommended storage temperature for iso is 50°F to 110°F. **Do not expose iso to lower temperatures – freezing may occur.** Store components at 70°F to 90°F for several days prior to use to minimize components being too viscous at time to take to field. Shelf life of Resin is 6 months and ISO 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.

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