



Earth Contact Products
15612 S Keeler Terrace
Olathe, KS 66062
(800) 327-0007

P2-003

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.

24-003 APPLICATIONS

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

Physical Properties

Density	ASTM D1622	4.0 pcf	5-6 pcf
Compressive Strength	ASTM D1621	68 psi	80-100 psi
Compressive Modulus	ASTM D1621	1900 psi	2400-3200 psi
Tensile Strength	ASTM D1623	79 psi	100-120 psi
Tensile Modulus	ASTM D1623	1446 psi	3100 psi
Water Absorption	ASTM D2842	≤ 0.04 lbs/ft ²	≤ 0.04 lbs/ft ²
Closed Cell Content		>92%	>92%
Max Service Temp		200°F	200°F
Elongation	ASTM D1623	5.1%	
Shear Strength	ASTM C273	52.0 psi	90 psi
Shear Modulus	ASTM C273	602 psi	677 psi
Flexural Strength	ASTM D790	80 psi	387 psi
Flexural Modulus	ASTM D790	1625 psi	13502 psi

About 24-003

TerraThane™ 24-003 is a hydrophobic/hydro-insensitive, MDI-based polymer formula that is specially designed for exceptional flow or spread under concrete structures when water is present. The 24-003 flowability ensures voidfill and support before lifting. 24-003 is available with an NSF/ANSI 61 Section 5 – 2017 certification.

Reaction Curve at 110°

7 seconds
13 Seconds
19 seconds





Earth Contact Products
15612 S Keeler Terrace
Olathe, KS 66062
(800) 327-0007

Special Testing/Certifications

		>96% density retention >93% comp str retention	
Dimensional stability, % volume change, 28 day aging (ASTM D-2126)			
	-1.5%	-0.1%	-1.0%

Performance

Wet Environments...

Lifting Capacity...

Chemical Resistance

Solvents...

Mold and Mildew...

Component Properties

Component	B-24-003	A2-000
Appearance	Transparent Liquid	Clear Brown Liquid
Brookfield Viscosity @ 20rpm	500 cps at 72°	200 cps at 72°
Specific Gravity	1.07	1.24
Weight per Gallon	8.9 lbs	10.3 lbs
Storage Temperature	50° - 100°F	50° - 110°F

Processing Parameters

ISO Temperature	100° - 120°F
Poly Temperature	100° - 120°F
Mixing Pressure	800 psi static, 600 psi dynamic, 1000/800 preferred

Mix Ratio

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

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

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 is 6 months 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.

The Information contained herein is believed to be reliable, but no representations, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications or the results to be obtained there from. The information is based on laboratory work with small-scale equipment and does not necessarily indicate end product performance. Because of the variation in methods, conditions and equipment used commercially in processing these materials, no warranties or guarantees are made as to the suitability of the products for the application disclosed. Full-scale testing and end product performance are the sole responsibility of the user. NCFI Polyurethanes shall not be liable for and the customer assumes all risk and liability of any use or handling of any material beyond NCFI's direct control. NCFI MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Nothing contained herein is to be considered as permission, recommendations, nor as an inducement to practice any patented invention without permission of the patent owner.