

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

# 24-011

## 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.

#### 24-011 APPLICATIONS

- Concrete Jacking
- Cavity Filling
- Wet and Saturated Conditions
- Excellent Physical Properties
- Void Filling

### About 24-011

NCFI 24-011 is a hydrophobic, two-component, Polymeric MDI-based, pour-in-place urethane foam system designed for concrete jacking and cavity filling in wet environments. NCFI 24-011 has low component viscosities and has been specially formulated for exceptional flow.

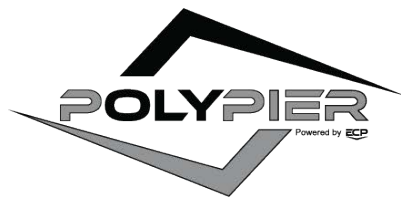
#### Reactivity at 120°

<b>Cream Time</b>	7 second
<b>Tack Free Time</b>	14 Seconds
<b>Rise Time</b>	15 seconds

### Physical Properties

Physical Properties	Test Method	Free Rise	Restrained
Density	ASTM D1622	5 pcf	6-7 pcf
Compressive Strength	ASTM D1621	110 psi	120 psi
Compressive Modulus	ASTM D1621	2200 psi	2350 psi
Tensile Strength	ASTM D1623	130 psi	140 psi
Tensile Modulus	ASTM D1623	2900 psi	3100 psi
Water Absorption	ASTM D2842	≤ 0.04 lbs/ft <sup>2</sup>	≤ 0.04 lbs/ft <sup>2</sup>
Closed Cell Content		>94%	>94%
Max Service Temp		200° F	200°F
Elongation	ASTM D1623	7.0%	
Shear Strength	ASTM C273	70 psi	85 psi
Shear Modulus	ASTM C273	800 psi	950 psi





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## Special Testing/Certifications

Dimensional stability, % volume change, 28 day 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%

### Performance

Wet Environments... **Excellent**

Lifting Capacity... **Excellent**

### Chemical Resistance

Solvents... **Excellent**

Mold and Mildew... **Excellent**

## Component Properties

Component	B-24-011	A2-000
Appearance	Opaque black liquid	Clear Brown Liquid
Brookfield Viscosity @ 20rpm	550 cps at 72°	200 cps at 72°
Specific Gravity	1.07	1.24
Storage Temperature	50° - 100°F	60° - 90°F

## Processing Parameters

ISO Temperature	110° - 130°F
Poly Temperature	110° - 130°F
Mixing Pressure	Minimum 800 static, 600 dynamic psi, 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 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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