



STRATA-FIL™ 24-023

Technical Data Sheet

Strata-Fil Polyurethanes

Strata-Fil™ Polyurethanes by NCFI are uniquely formulated, plural-component, low-exotherm systems designed for a variety of geotechnical applications, such as void filling, structural forming, and cavity filling. Each batch goes through stringent testing and quality assurance standards to ensure reliability in the field.

APPLICATIONS

Pipeline Pads/Pillows
Trench Breakers
Low-Exotherm Void Filling
Low-Density
Rock Shields

About STRATA-FIL™ 24-023

Terrathane™ 24-023 is a two-component, HFO blown, low-density, low exotherm polyurethane system designed for void fill or trench-break. NCFI 24-023 has been formulated to process at 2.0-2.2 PCF, depending on lift thickness, without scorching or splitting.

UNIQUE ADVANTAGES

Water Blown
Stable Exothermic Reaction

REACTIVITY AT 110°F

Cream Time	1 seconds
Gel Time	5 seconds
Tack Free Time	8seconds
Rise Time	23 seconds

Chemical Resistance

Solvents... **Excellent**
Mold and Mildew... **Excellent**

Physical Properties

Physical Properties	Test Method	Free Rise
Density	ASTM D1622	2.0 – 2.5 pcf
Compressive Strength	ASTM D1621	39 psi
Compressive Modulus	ASTM D1621	1755 psi
Tensile Strength	ASTM D1623	51 psi
Tensile Modulus	ASTM D1623	7275 psi
Max Service Temp		200F
Shear Strength	ASTM C273	35 psi
Shear Modulus	ASTM C273	3612 psi

Special Testing/Certifications

Flammability UL-94 HBDF	Pass
Moisture Vapor Transmission (ASTM E960)	2-4 perm·in

Dimensional stability, % volume change, 28-day aging (ASTM D-2126)	Heat Age at 200°F	Freezer Age at -20°F	Humid Age at 95% RH & 158°F
	-0.2%	-0.1%	1.2%

Component Properties

Component	B-24-023	A2-000
Appearance	Clear Amber Liquid	Clear Brown Liquid
Brookfield Viscosity @20rpm	580 cps at 72°F	200 cps at 72°F
Specific Gravity	1.07	1.24
Weight per Gallon	8.93 lbs	10.3 lbs
Storage Temperature	50 – 100°F	50 – 100°F

Mix Ratio

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

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

Processing Parameters

ISO Temperature	100 – 130 °F
Poly Temperature	100 – 130 °F
Mixing Pressure	800 – 1200 psi

Storage and Handling

Store the poly from 50°F to 100°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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Component Properties

Component	B-24-023	A2-000
Appearance	Clear Amber Liquid	Clear Brown Liquid
Brookfield Viscosity @20rpm	720 cps at 72°F	200 cps at 72°F
Specific Gravity	1.07	1.24
Weight per Gallon	8.93 lbs	10.3 lbs
Storage Temperature	50 – 100°F	50 – 100°F

Mix Ratio

By weight... 100 parts poly: 104 parts iso

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

Processing Parameters

ISO Temperature	130 – 140 °F
Poly Temperature	130 – 140 °F
Mixing Pressure	1,200 – 1,500 psi

Storage and Handling

Store the poly from 50°F to 100°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.

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