



# STRATA-FILL™ 24-023

## Technical Data Sheet

### STRATA-FILL™ Product Line

The Strata-Fill™ light-weight fill product line is comprised of dual-component systems formulated for a variety of geotechnical applications, such as void filling, pipe abandonment, trench breakers, and cavity filling. Each batch goes through stringent testing and quality assurance standards to ensure reliability in the field.

### STRATA-FILL™ 24-023

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

#### APPLICATIONS

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

#### UNIQUE ADVANTAGES

- Low Exotherm
- Contains No Solvents
- Fast Reactivity
- Quick Cure Time

#### Reactivity at 110°F

<b>Cream Time</b>	1 – 2 seconds
<b>Gel Time</b>	6 – 8 seconds
<b>Tack Free Time</b>	13 – 16 seconds
<b>Rise Time</b>	22 – 25 seconds

#### Chemical Resistance

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

#### Performance

- Wet Environments...* **Fair**
- Material Spread...* **Minimal**

#### Physical Properties

Physical Properties	Test Method	Free Rise
Density	ASTM D1622	2.0 – 2.2 pcf
Compressive Strength	ASTM D1621	44 psi
Compressive Modulus	ASTM D1621	1120 psi
Tensile Strength	ASTM D1623	67 psi
Tensile Modulus	ASTM D1623	120 psi
Water Absorption	ASTM D2842	≤0.08 lbs/ft <sup>2</sup>
Closed Cell Content		>95%
Max Service Temp		
Elongation	ASTM D1623	9.3%
Shear Strength	ASTM C273	47 psi
Shear Modulus	ASTM C273	395 psi
Flexural Strength	ASTM D790	128 psi
Flexural Modulus	ASTM D790	4735 psi

### Special Testing

<b>Flammability UL-94 HBDF</b>	Pass		
<b>Moisture Vapor Transmission (ASTM E960)</b>	2-4 perm-in		
Dimensional stability, % volume change, 28-day aging (ASTM D-2126)	<b>Heat Age at 200°F</b>	<b>Freezer Age at -20°F</b>	<b>Humid Age at 95% RH &amp; 158°F</b>
	-0.2%	-0.1%	1.2%

### Component Properties

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

### Mix Ratio

*By weight... 116 parts A-side: 100 parts B-side*

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

### Processing Parameters

<b>A-side Temperatures</b>	110 – 140°F
<b>B-side Temperatures</b>	110 – 140°F
<b>Mixing Pressure</b>	1000 psi static 800 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.

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