NCFI
Dual Component System

NCFI-3FH
Formerly 24-3F
Technical Data Sheet

Material Characteristics

NCFI-3FH is a 3lb per ft³ fast-reacting, hydrophobic system formulated for residential slab lifting. With reactivity similar to a spray foam, it allows for pinpoint control while performing well in saturated environments. Ideal for sidewalks, driveways, garage slabs, and interior floors, and it's also suitable for light commercial work..

Applications

Foundation Repair
Trip Hazard Mitigation
Floor Leveling
Highways and Roadways
Airport Runways and Taxiways
Joint Matching
Deep Soil Injection

Unique Advantages

Fast Expansion Design
Hydrophobic/Hydro-Insensitive
High Control for Structural Lifting
Contains No Solvents
Strengthens Loose Soil
Water Blown System

Reactivity at 110°F

Cream Time	2 seconds
Gel Time	7 seconds
Tack Free Time	12 seconds
Rise Time	19 seconds
Cure Time	95% @ 30min. Full cure at 24hrs

Chemical Resistance

Solvents…	Excellent
Mold and Mildew…	Excellent

Performance

Wet Environments…	Excellent
Lifting Capacity…	Excellent

Physical Properties

Physical Properties	Test Method	Free Rise
Density	ASTM D1622	3 pcf
Compressive Strength	ASTM D1621	41 psi
Compressive Modulus	ASTM D1621	1250 psi
Tensile Strength	ASTM D1623	77 psi
Tensile Modulus	ASTM D1623	127 psi
Water Absorption	ASTM D2842	≤0.04lbs/ft²
Shear Strength	ASTM C273	48 psi
Shear Modulus	ASTM C273	4356 psi
Closed Cell Content		>93%
Max Service Temp		200°F

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Special Testing

NYDOT Hydro-Insensitivity test, GTP-9	**>92% density retention** **>93% comp strength retention**

Component Properties

Component	B-3FH	A2-000
Appearance	Transparent Liquid	Clear Brown Liquid
Brookfield Viscosity @20rpm	750 cps at 72°F	200 cps at 72°F
Specific Gravity	1.07	1.24
Weight per Gallon	8.9 lbs	10.3 lbs
Storage Temperature	50-100°F	50-100°F

Mix Ratio

By weight… 100 parts poly: 118 parts iso
By volume… 100 parts poly: 100 parts iso

Processing Parameters

A-side Temperatures	100 – 120°F
B-side Temperatures	100 – 120°F
Mixing Pressure	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.