

## CASE STUDY

Convention Center Built on Reclaimed Riverbed Suffers from Settling, Erosion, and Construction Issues. Contractor Uses **TerraThane™** to Fill Voids, and Raise and Level Concrete Slabs.



### PROBLEM

12-year-old riverfront Convention Center in New Bern, NC, was in trouble. The building's exterior is supported by pilings driven deep into the ground, but the floors sit directly on the earth and silt of the old riverbed. The land was in-filled by old docks and building debris in the 1970s and settling, erosion, and construction issues were taking their toll on the building:

- + Parts of the floor and patio sunk up to seven inches
- + Cracks and uneven joints in the concrete slab floors were causing walking/tripping hazards
- + Gaps beneath walls were allowing sound to pass between what were designed as soundproof rooms

### SOLUTION

Contractor Hayward Baker drilled multiple 5/8-inch holes in a 5 ft. x 5 ft. grid and pumped in over 10,000 lbs. of TerraThane™ geotechnical polyurethane foam to fill the voids beneath and raise the concrete slabs to their original position. Terry Phillips, superintendent with Hayward Baker says, "TerraThane is the way to go. It's clean—there's really no mess—it's much quicker than traditional products, strong, and lasts the life of the building."

### RESULTS

According to Phillips, "TerraThane really helped us exceed the convention center client's expectations."

*"We finished the job three weeks ahead of schedule."*

Now, we're talking with them about two more buildings. I can't wait to use TerraThane again."

Learn more at  
[www.TerraThane.com](http://www.TerraThane.com)

or call

**1-866-NSULATE**  
(1-866-678-5283)



NCFI Polyurethanes  
A Division of BMC  
P.O. Box 1528  
Mount Airy, NC 27030  
[www.TerraThane.com](http://www.TerraThane.com)

Phone: 866.678.5283  
Spray Equipment and Parts  
Ordering Hotline: 866.812.7320  
E-mail: [moreinfo@ncfi.net](mailto:moreinfo@ncfi.net)  
[www.NCFI.com](http://www.NCFI.com)

# TECHNICAL SPECIFICATIONS

## NCFI POUR-IN-PLACE 24-003 SYSTEM

### DESCRIPTION

NCFI 24-003 is a hydrophobic, two-component, HFC 245fa blown, all PMDI-based, pour-in place urethane foam system designed for concrete jacking and cavity filling in wet environments. NCFI 24-003 has low component viscosities making the system suitable for mechanical mix machines, high pressure (over 600 psi) impingement mixing machines or hand mixing.

### DISTINGUISHING CHARACTERISTICS

- + Excellent Lifting Capacity
- + Good Performance in Wet Environments
- + Excellent Compressive Strength
- + Good Dimension Stability

### TYPICAL RESIN PROPERTIES

|                  | 24-003 R             | 24-003 A                  |
|------------------|----------------------|---------------------------|
| Viscosity @ 72°F | 475 cps              | 200 cps                   |
| Lbs./Gallon      | 8.9 lbs.             | 10.2 lbs.                 |
| Appearance       | opaque, black liquid | transparent, brown liquid |
| Shelf Life       | 6 months             | 6 months                  |

### MIX RATIO

|           | 24-003 R  | 24-003 A  |
|-----------|-----------|-----------|
| By Volume | 100 parts | 116 parts |
| By Volume | 100 parts | 100 parts |

### TYPICAL REACTION PROPERTIES

|                      | Hand Mix @ 72°F | Hand Mix @ 120°F |
|----------------------|-----------------|------------------|
| Cream Time (sec)     | 20              | 7                |
| Gel Time (sec)       | 47              |                  |
| Tack Free Time (sec) | 51              | 14               |
| Rise Time (sec)      | 90              | 15               |
| Density (FRC)        | 4pcf            | 3-4pcf           |

### TYPICAL PHYSICAL PROPERTIES

|                                      |                           |
|--------------------------------------|---------------------------|
| Restrained Core Density, ASTM D 1622 | 5.5 pcf                   |
| Compressive Strength, ASTM D 1621    | 90 psi                    |
| Tensile Strength, ASTM D 1623        | 110 psi                   |
| Closed Cell Content                  | >94%                      |
| Water Absorption, ASTM D 2842        | ≤0.04 lbs/ft <sup>2</sup> |
| Resistance to Solvents               | Excellent                 |
| Resistance to Mold and Mildew        | Excellent                 |
| Maximum Service Temp                 | 200°F                     |

\*The above values are average values obtained from laboratory experiments and should serve only as guidelines.

The information on our data sheets is to assist customers in determining whether our products are suitable for their applications. The customers must satisfy themselves as to the suitability for specific cases. NCFI Polyurethanes warrants only that the material shall meet its specifications; this warranty is in lieu of all other written or unwritten, expressed or implied warranties and NCFI Polyurethanes expressly disclaims any warranty of merchantability, fitness for a particular purpose, or freedom from patent infringement. Accordingly, buyer assumes all risks whatsoever as to the use of the material. Buyer's exclusive remedy as to any breach of warranty, negligence or other claim shall be limited to the purchase price of the material. Failure to adhere strictly to any recommended procedures shall relieve NCFI Polyurethanes of all liability with respect to the material or the use thereof.



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