

NCFI POUR-IN-PLACE SYSTEM 24-003

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 Dimensional Stability

TYPICAL RESIN PROPERTIES:

	<u>24-003 R</u>	<u>24-003 A</u>
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:

	<u>24-003 R</u>	<u>24-003 A</u>
By Weight	100 parts	116 parts
By Volume	100 parts	100 parts

TYPICAL REACTION PROPERTIES:

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

TYPICAL PHYSICAL PROPERTIES:

Restrained Core Density, ASTM D1622	5.5 pcf
Compressive Strength, ASTM D1621	90 psi
Tensile Strength, ASTM D1623	110 psi
Closed Cell Content, NCFITM 300	>94%
Water Absorption, ASTM D2842	≤0.04 lbs/sq ft
Dimensional Stability, ASTM D2126	Volume change
Heat age, 200°F, 28 days	-1.5%
Humid age, 158°F, 100% R.H., 28 days	-1.0%
Cold age, -20°F, 28 days	-0.1%
Resistance to Solvents	Excellent
Resistance to Mold and Mildew	Excellent
Maximum Service Temperature	200°F

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

NCFI 24-003 APPLICATION INFORMATION

EQUIPMENT AND COMPONENT RATIOS:

NCFI 24-003 should be mixed by pour machines designed to mix urethane chemicals. It is recommended that this system be processed with a Gusmer/Graco 20/35 with a GX-7 gun. Preheats and hose heats may be set in the temperature range of 100-140°F depending on ambient conditions. Use a #16160-125-A2 pour module with no disc. NCFI 24-003R is connected to the **resin/polyol** pumps with NCFI 24-003A being connected to the **isocyanate** pumps.

STORAGE AND USE OF CHEMICALS:

Keep temperature of chemicals at 70°F for several days before use. Cold chemicals can cause poor mixing, pump cavitation or other process problems due to higher viscosity at lower temperatures. Storage temperature should not exceed 100°F. Prolonged exposure to temperatures below 60°F can cause the 'A' component to freeze. Do not store in direct sunlight. Keep drums tightly closed when not in use and under nitrogen pressure of 2 - 3 psi after they have been opened.

SAFE HANDLING OF LIQUID COMPONENTS:

Use caution in removing bungs from the container. Loosen the small bung first and let any built up gas escape before completely removing. Avoid prolonged breathing of vapors. In case of chemical contact with

eyes, flush with water for at least 15 minutes and get medical attention. For further information refer to "MDI-Based Polyurethane Foam Systems: Guidelines for Safe Handling and Disposal" publication AX-119 published by the Center For The Polyurethanes Industry 1300 Wilson Blvd, Suite 800, Arlington, VA 22209.

Caution:

Polyurethane products manufactured or produced from this liquid system may present a serious fire hazard if improperly used or allowed to remain exposed or unprotected. The character and magnitude of any such hazard will depend on a broad range of factors which are controlled and influenced by the manufacturing and production process, by the mode of application or installation and by the function and usage of the particular product. *Any flammability rating contained in this literature is not intended to reflect hazards presented by this or any other material under actual fire conditions. These ratings are used solely to measure and describe the product's response to heat and flame under controlled laboratory conditions.* Each person, firm or corporation engaged in the manufacture, production, 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.

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.

Origination Date 04/2002

Revision #6 06/2012