

NCFI SYSTEM 24-030

DESCRIPTION:

NCFI 24-030 is a two-component, water blown, all PMDI-based, nominal 4 pcf density, polyurethane foam system designed for undersealing and void filling when minimal lift is required under concrete slab sections. The slow speed reactivity profile allows for excellent flow characteristics when used as an undersealing and void fill material. NCFI 24-030 is formulated to be machine processed using applicable plural component polyurethane processing equipment.

DISTINGUISHING CHARACTERISTICS:

- Excellent Flow Characteristics
- Excellent Compressive Strength
- Good Dimensional Stability

TYPICAL RESIN PROPERTIES:

| | <u>24-030 R</u> | <u>24-030 A</u> |
|------------------|------------------------------|------------------------------|
| Viscosity @ 72°F | 700 cps | 200 cps |
| Lbs./Gallon | 8.9 lbs. | 10.2 lbs. |
| Appearance | transparent, black liquid | transparent, brown liquid |
| Shelf Life | 6 months | 6 months |

MIX RATIO:

| | <u>24-030 R</u> | <u>24-030 A</u> |
|-----------|-----------------|-----------------|
| By Weight | 100 parts | 116 parts |
| By Volume | 100 parts | 100 parts |

TYPICAL REACTION PROPERTIES:

| | <u>Hand Mix @ 72°F</u> | <u>Equip. mix @ 120°F*</u> |
|----------------|------------------------|----------------------------|
| Cream Time | 18 seconds | 4 seconds |
| Gel Time | 180 seconds | 50 seconds |
| Tack Free Time | 280 seconds | 75 seconds |
| Rise Time | 360 seconds | 110 seconds |
| Density (FRC) | 4 pcf | 3.3 pcf |

*Speed will vary by component temperatures, pressures, ambient temperatures and conditions.

TYPICAL PHYSICAL PROPERTIES:

| | | |
|--|-----------------|---------|
| Typical In-place Density | 4 pcf | 5 pcf |
| ASTM D-1622 | | |
| Compressive Strength, parallel-to-rise | 67 psi | 100 psi |
| ASTM D-1621 | | |
| Tensile Strength, parallel-to-rise | 82 psi | 124 psi |
| ASTM D-1623 | | |
| Shear Strength, parallel-to-rise | 46 psi | 68 psi |
| ASTM C-273 | | |
| Closed Cell Content | >90% | |
| NCFITM 300 | | |
| Water Absorption, | ≤0.04 lbs/sq ft | |
| ASTM D-2842 | | |
| 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 24-030 APPLICATION INFORMATION

EQUIPMENT AND COMPONENT RATIOS:

NCFI 24-030 should be mixed by pour machines designed to mix urethane chemicals. Consult with your NCFI Account Manager or Tech Support Representative for information regarding qualified metering equipment and the appropriate process parameters recommended. NCFI 24-030 **R** is connected to the **resin/polyol** pumps with NCFI 24-030 **A** 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 40°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.