

**NCFI TRENCH BREAK FOAM SYSTEM
24-023**

DESCRIPTION:

NCFI 24-023 is a two-component, water and HFC-245fa co-blown, polyurethane foam system designed for use as a void fill, trench-break material. NCFI 24-023 has been formulated to process at 2.0–2.2 pcf depending on lift thickness. 24-023 is designed to be built up in great lift thickness without scorch or splitting. NCFI 24-023 is not ASTM E-84 flame spread rated and is not to be used in applications governed by building codes. This product is also offered in a high altitude variation that will maintain the 2 pcf density when processed at high elevations.

DISTINGUISHING CHARACTERISTICS:

- Ease of Processing & Handling
- Scorch Free Processing
- Good Interlayer Adhesion

TYPICAL RESIN PROPERTIES:

	<u>24-023 R</u>	<u>24-023 A</u>
Viscosity	580 cps	200 cps
Lbs./Gallon	9.0 lbs.	10.3 lbs.
Appearance	transparent, amber liquid	transparent, brown liquid
Shelf Life	6 months	6 months

MIX RATIO:

	<u>24-023 R</u>	<u>24-023 A</u>
By Volume	100 parts	100 parts

TYPICAL REACTION PROPERTIES:

Hand Mix @ 50°F

Cream Time	5 second
Tack Free Time	22 seconds
Rise Time	33 seconds
Machine Tack Free Time @ 130°F	8 seconds

TYPICAL PHYSICAL PROPERTIES:

Core Density ASTM D 1622	2 pcf
Compressive Strength @ Max Load ASTM D 1621	27 psi
Closed Cell Content NCFI TM 300	>95%
Water Absorption, ASTM D 2842	≤0.08 lbs/ft ²
Resistance to Solvents	Excellent
Maximum Service Temp	180°F
28 day Dimensional Stability	<u>Vol. Change</u>
-20°F	-0.1%
200°F	-0.2%
158°F, 95% RH ASTM D 2126	1.2%

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

NCFI 24-023 APPLICATION INFORMATION

EQUIPMENT AND COMPONENT RATIOS:

NCFI 24-023 should be processed using standard spray equipment with 1/1 by volume proportioning pumps capable of maintaining 800-1200 psi dynamic pressure. The Graco IP-40 with Fusion gun with a **pour adapter** is preferred. Preheater temperatures should be set at a minimum of 130°F. 130°F is the optimum hose heat temperature. NCFI 24-023 **R** is connected to the **resin/polyol** pumps with NCFI 24-023 **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 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.

CONDITION OF SURFACES TO BE COVERED:

NCFI's specially formulated polyurethane foam system can be placed into wet soil areas while still maintaining its physical characteristics during reaction and expansion. Any metal surfaces to which foam is expected to adhere must be free of oil, grease, etc.

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.