

## NCFI SPRAY SYSTEM 14-006

### DESCRIPTION:

NCFI 14-006 is a two component, HFC 245fa blown, polyether-based, low density spray urethane foam system designed for high temperature insulating applications where exposure temperatures exceed the capabilities of typical urethane foam systems. NCFI 14-006 is designed to tolerate limited exposure to temperatures as high as 300°F. Continuous service maximum temperature exposure should not exceed 275°F.

### DISTINGUISHING CHARACTERISTICS:

- Good Dimensional Stability in High Temperatures
- High R-value
- Wide Processing Parameter Window

### TYPICAL RESIN PROPERTIES:

	<u>14-006 R</u>	<u>14-006 A</u>
Viscosity	535 cps	650 cps
Lbs./Gallon	9.1 lbs.	10.2 lbs.
Appearance	transparent, amber liquid	transparent, brown liquid
Shelf Life	6 months	6 months

### MIX RATIO:

	<u>14-006 R</u>	<u>14-006 A</u>
By Volume	100 parts	100 parts

### TYPICAL PHYSICAL PROPERTIES:

Spray In-place Density ASTM D1622	3.0 pcf
Compressive Strength ASTM D1621	46 psi
Closed Cell Content NCFI TM 300	>90%
k-factor, aged 180 days at ambient ASTM C518	0.16
Water Absorption ASTM D2842	≤0.06 lbs/ft <sup>2</sup>
Maximum Service Temperature	300°F
Heat Age Volume Change ASTM D2126	
28 days @ 300°F	< 10%
28 days @ 200°F	< 5%
28 days @ 158°F, 100% RH	< 8%
Resistance to Solvents	Excellent

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

## NCFI 14-006 APPLICATION INFORMATION

### EQUIPMENT & COMPONENT RATIOS:

NCFI 14-006 should be mixed by standard polyurethane spray equipment. NCFI 14-006R is connected to the **resin/polyol** pumps with NCFI 14-006A being connected to the **isocyanate** pumps. The proportioning pump ratio is 1 to 1. Equipment preheater temperature should be 130°F. Hose temperature should be 130°F to give good pattern. Equipment which operates at higher pressures will require slightly lower temperature settings.

### OPTIMUM ADHESION TEMPERATURE OF SURFACE TO BE SPRAYED:

For service temperatures in excess of 200°F, surface to be sprayed should be 120°F or above at time of spraying.

### STORAGE AND USE OF CHEMICALS:

Keep temperature of chemicals above 65°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 85°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. Under proper storage conditions these chemical systems have a "shelf life" of six months.

### 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 Alliance 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.