

## NCFI SPRAY SYSTEM 24-010

### DESCRIPTION:

NCFI 24-010 is a two component, water blown, all PMDI based low density spray polyurethane foam system designed for soil stabilization, road bed construction, deep hole injection and void filling. NCFI 24-010 is dispensed using 1/1 by volume ratio equipment. This system is available in slow, regular and extremely fast (for Sub-Arctic conditions) speeds.

### DISTINGUISHING CHARACTERISTICS:

- Excellent Flow for Injection Apps
- Good Interlayer Adhesion
- Thick Application Scorch-Free

### TYPICAL RESIN PROPERTIES:

	<u>24-010 R</u>	<u>24-010 A</u>
Viscosity	600 cps	200 cps
Lbs./Gallon	8.9 lbs.	10.2 lbs.
Appearance	transparent, amber liquid	transparent, brown liquid
Shelf Life	6 months	6 months

### MIX RATIO:

	<u>24-010 R</u>	<u>24-010 A</u>
By Volume	100 parts	100 parts

### TYPICAL REACTION PROPERTIES:

Machine Mix @ 140°F

	<u>Slow</u>	<u>Regular</u>	<u>Arctic</u>
Rise Time (sec)	10	5	3
Tack Free (sec)	20	11	7
Firm Time (sec)	180	90	65
Density (FRC)	2.5 pcf	2.5 pcf	2.6 pcf

### TYPICAL PHYSICAL PROPERTIES:

	<u>Free Rise</u>	<u>Molded</u>
Density, ASTM D 1622	2.5 pcf	4 pcf
Compressive Strength @ 10% Defl ASTM D 1621	35 psi	75 psi
Closed Cell Content NCFITM 300	>95%	
Water Absorption, ASTM D 2842	≤0.03 lbs/ft <sup>2</sup>	
Resistance to Solvents	Excellent	
Maximum Service Temp	180°F	

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

## NCFI 24-010 APPLICATION INFORMATION

### EQUIPMENT AND COMPONENT RATIOS:

NCFI 24-010 should be sprayed using standard spray equipment with 1/1 by volume proportioning pumps capable of maintaining 800-1200 psi dynamic pressure. The Graco Reactor E20-series or better with a Fusion gun is preferred. Preheater temperatures should be set at a minimum of 140°F. 130°F is the optimum hose heat temperature. NCFI 24-010 **R** is connected to the **resin/polyol** pumps with NCFI 24-010 **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.

### PREPARATION OF SURFACE TO BE SPRAYED:

All surfaces to be sprayed should be clean, dry, and free of dew or frost. All metal to which foam is to be applied must be free of oil, grease, etc.

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

On general work where the surface to be sprayed will remain at ambient temperature or cooler, the surface should be between 70°F and 120°F. In this range the warmer the surface the better the adhesion.

### 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.