NCFI POLYURETHANES

Technical Data Sheet

NCFI Polyurethanes
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NCFI SPRAY ADHESIVE 13-004

DESCRIPTION:

NCFI Spray Adhesive 13-004 is a two component, all water-blown, slow-rise spray polyurethane foam system designed for adhering conventional roofing materials to other roofing materials or substrates. This material is available in multiple speeds for use in varying temperature conditions.

DISTINGUISHING CHARACTERISTICS:

- Excellent Cure and Overlap Adhesion
- High Yields
- High Closed Cell Content
- Good Dimensional Stability

TYPICAL RESIN PROPERTIES:

	13-004 R	13-004 A
Viscosity	545 cps	200 cps
Lbs./Gallon	9.0 lbs.	10.2 lbs.
Appearance	transparent, amber liquid	transparent, brown liquid
Shelf Life	3 months	6 months

MIX RATIO:

	13-004 R	13-004 A
By Volume	100 parts	100 parts

TYPICAL REACTION PRPERTIES:

Hand-mixed 214 grams at 45°F at 200 rpms

	FAST	at 72°F REG	at 72°F SLOW
Cream time, sec	20	20	60
Tack free time, sec	35	140	500
Rise time, sec	50	150	450
Density, pcf	2.4	2.4	2.4

Tack Free Time when machine processed at 110°F with ambient conditions at 72°F:

Minutes	1-3	2-4	4-7

TYPICAL PHYSICAL PROPERTIES:

Adhesive strength	> 30 psi
Closed Cell Content	> 95%
Resistance to Solvents	Excellent
Resistance to Mold and Mildew	Excellent
Maximum Service Temp	180°F

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

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.

NCFI SPRAY ADHESIVE 13-004
APPLICATION INFORMATION

EQUIPMENT AND COMPONENT RATIOS:

Standard polyurethane spray equipment is required. NCFI Spray Adhesive **13-004 R** is connected to the resin pumps with NCFI Spray Adhesive **13-004 A** being connected to the isocyanate pumps. The proportioning pump ratio is 1 to 1. Preheater and hose temperature should be set at 110°F to give a good pattern. For high-pressure equipment, temperature settings may be slightly lower.

STORAGE AND USE OF CHEMICALS:

Keep temperature of chemicals above 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 85°F. 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.

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. Primers should be used where necessary. Please refer to NCFI's "Special Bulletin on Recommended Procedures for Applying NCFI Spray Foam Systems as Insulation on Exterior Surfaces."

PREDICTION OF FIRE HAZARD IN CONSTRUCTION:

NCFI Spray Adhesive 13-004 is designed for various substrate adhesion applications. NCFI Spray Adhesive 13-004 is not designed for interior exposure. Where any foam is sprayed in building interiors, its exposed surface should be protected from fire hazard by ½" Portland cement plaster or ½" gypsum board or equivalent per applicable building code.