GENERAL COATINGS MANUFACTURING CORP.

TECHNICAL DATA SHEET
ULTRA-THANE 170

POUR GRADE POLYURETHANE FOAM

PRODUCT DESCRIPTION

ULTRA-THANE 170 is a two component, rigid, polyurethane foam system. Designed for pour foam applications where constant flow characteristics and even density distributions are preferred. Its inherent fast initiation and slow rise times make it suitable for applying with a plural component spray system or hand mixing and pouring into place.

UNIQUE PROPERTIES

ULTRA-THANE 170's "A" component is a polymetric isocyanate containg reactive isocyanate groups. The "B" component is a combination of polyols, catalytic agents and HFC-245fa blowing agent, offers zero ozone-depletion technology to help protect the environment.

RECOMMENDED USES

- Decorative Molding
- Cavity Voids
- Insulated Panels

PROCESSING CHARACTERISTICS

PROPERTY	
Cream Time	30 - 60 seconds
Tack Free Time	275 - 325 seconds
Rise Time	275 - 325 seconds
Cup Density	1.90 - 5.0 pcf

*Specific reaction times and desities are availible by request.

PROCESSING EQUIPMENT

The pour equipment used to apply the liquid components shall be of the heated, airless type capable of supplying each component with +/- 2% of the mixing ratio by volume (50 parts A to 50 parts B [1:1]) and maintaining a temperature of the mixed components at the gun of 110° F-130° F. Optimum component spraying pressures and temperatures will vary as a function of the type of equipment utilized, material system used, ambient and substrate conditions, and the specified application. Thorough, intensive mixing of the components at the gun, either by mechanical, hydraulic, or air action is essential to producing acceptable foam quality. Ideal material drum temperatures for spraying should range from 65° F to 80° F. In colder weather (<50° F is not recommended), 2:1 transfer pumps are recommended due to the effects of lower temperatures on liquid component viscosity limiting the supply of material to the proportioning unit.

LIQUID COMPONENT PROPERTIES

PROPERTY		
In Place Denisty	ASTM D1622	2.0 lbs./ft/
Adhesion	ASTM D1623	Equal to Tensile
Closed Cell Content	ASTM D2856	>90%
Viscosity @ 77° F		800 - 900 cps "B" Component
Compressives:		
Parallel to rise		25psi
Perpendicular to rise		21psi

STORAGE

Maintain storage areas for materials between 50-75°F at all times. Open drums with caution to prevent lose of blowing agent and potential personal chemical contamination. Avoid moisture contamination in containers. Containers should not be resealed if contamination is suspected. CO_2 or carbon dioxide created pressure can develop. Do not attempt to use contaminated material.

SHELF LIFE

Shelf life of ULTRA-THANE 170 is 6 months from the date of manufacture when stored in original unopened containers at temperatures between 50°F and 75° F. Temperatures above 75° F may decrease shelf life.

FREIGHT CLASSIFICATION

Liquid Plastic Material -- NOIBN

THERMAL BARRIER

The use of polyurethane or polyisocyanate foam in interior applications on walls or ceilings may present an unreasonable fire hazard unless the foam is protected by an approved, fire-resistive, 15-minute thermal barrier. A thermal barrier is a material, applied over polyurethane foam, designed to slow the temperature rise of the foam during a fire situation and to delay the foam's involvement in a fire. A building code definition of an approved thermal barrier is one, which, is equal in fire resistance to 12.7 mm (1/2 inch) gypsum board. Such thermal barriers limit the temperature rise of the underlying polyurethane foam to not more than 121°C (250°F) after 15 minutes of fire exposure complying with the standard time temperature curve of ASTM E119 (Test Methods for Fire Tests of Building Construction Materials). Thermal barriers meeting this criterion are termed a "15 minute thermal barrier" or classified as having an "index of 15".

GENERAL SAFETY, TOXICITY AND HEALTH DATA

Material Safety Data Sheets are available on this polyurethane foam material. Any individual who may come in contact with these products should read and understand the MSDS.

Handling and Safety

Respiratory protection is MANDATORY! Persons with known respiratory allergies should avoid exposure to the "A" component. The "A" component contains reactive isocyanate groups while the "B" component contains amine and/or organometallic catalysts with blowing agents. Both materials must be handled and used with adequate ventilation. The vapors must not exceed the TLV (0.02 parts per million) for isocyanates. Avoid breathing vapors. Wear a NIOSH approved respirator. If inhalation of vapors occur, remove victim from contaminated area and administer oxygen if breathing is difficult. Call a physician immediately. Avoid contact with skin, eyes, and clothing. Open containers carefully, allowing any pressure to be relieved slowly and safely. Wear chemical safety goggles and rubber gloves when handling or working with these materials. In case of eye contact,

Fire Hazard

Fires involving either of these components may be extinguished with carbon dioxide, dry chemical, or inert gas. Application of large quantities of water spray is recommended for spill fires. Personnel fighting the fire must be equipped with NIOSH approved self-contained breathing apparatus.

Cleaning of Spills or Leakage

Cover the area with an inert absorbent material such as clay or vermiculite and transfer to metal waste containers. Saturate with water but do not seal the container with the isocyanates and water mixture. The area should then be flushed with large amounts of water, in the case of the "B" component, or a 5% aqueous ammonia, in the case of the "A" component. Dispose of these materials in compliance with federal, state and local regulations.

Caution: Isocyanates will react with water and generate carbon dioxide. This could result in rupture of closed containers.

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