

ULTRA-THANE 170

POUR GRADE POLYURETHANE FOAM

ULTRA-THANE 170 is a two-component, non fire-rated, pour-in-place, polyurethane foam system. It is suitable for injection applications to fill cavities for reinforcement or insulation. The system has been designed with an inherent fast reaction profile and slow-rise time making it suitable for large open void fill, using either plural component spray foam equipment or a hand mix process.

Ultra-Thane 170 system uses HFC-245fa blowing agent to expand the polyurethane polymer into a cellular insulation.

RECOMMENDED USES

- Cavity Voids
- Decorative Molding
- Flotation Devices
- Insulated Panels
- Sculptures

PACKAGING

Ultra-Thane 170 is sold in 1,000 lbs, two-component drum kits.

TECHNICAL DATA

NOMINAL CURED PHYSICAL PROPERTIES

Property	ASTM Standard	1.7 Density
Sprayed-In-Place Density	D1622	2.0
Compressive Parallel to Rise	C1621	25 psi
Compressive Perpendicular to Rise	C1621	21 psi
Adhesion	D1623	Equal to Tensile
Closed Cell Content	D2856	>90%

This information is intended only as a guide for design purposes. The values shown are the average values obtained from laboratory prepared samples and results may vary with application conditions, equipment and technician.

PROCESSING GUIDE

PROCESSING CHARACTERISTICS PROPERTY

Cream Time	20-30 Seconds
Tack Free Time	275-325 seconds
Rise Time	275-325 seconds
Cup Density	1.9 - 2.0 pcf

*Specific reaction times and densities are available by request.

LIQUID COMPONENT PROPERTIES

Property	1.7 Density
Viscosity @ 77°F (25°C)	
Component A	200
Component B	900
Specific Gravity @ 77°F (25°C)	
Component A	1.24
Component B	1.18
Mix Ratio A/B	50/50

REQUIREMENTS

Ultra-Thane 170 is a pour-grade polyurethane foam system intended for installation by qualified contractors trained in the processing and application of systems, as well as the plural-component polyurethane dispensing equipment required to do so.

SUBSTRATE TEMPERATURE

Ultra-Thane 170 may be applied to surfaces with temperatures as low as 50°F (10°C) in most instances.

PROCESSING EQUIPMENT

The pour equipment used to apply the liquid components should 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 (43°C-54°C). 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 (18°C-27°C). In colder weather (<50°F [10°C]), 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.

THERMAL BARRIER

Application without a Prescriptive Thermal Barrier: The insulations may be installed without the 15-minute thermal barrier prescribed in IBC Section 2603.4 and IRC Section R316.4, when installed as described in this section.

JOB-SITE PROTECTION

Overspray from Ultra-Thane 170 can carry considerable distances and attention should be given to the following:

1. Post warning signs a minimum of 100 feet from the work area.
2. Cover all intake vents near the work area.
3. Minimize or exclude all personnel not directly involved with the spray application.
4. No welding, smoking or open flames.
5. Have CO₂ or other dry chemical fire extinguisher available at the jobsite.
6. Provide adequate ventilation.

LARGE MASSES of SPF should be removed to an outside safe area, cut into smaller pieces and allowed to cool before discarding into any trash receptacle.

As with all SPF systems improper application techniques should be avoided. Examples of improper application techniques include, but are not limited to excessive thickness of SPF, off-ratio material and spraying into or under rising SPF. Potential results of improperly installed

SPF include: dangerously high reaction temperatures that may result in fire and offensive odors that may or may not dissipate. Improperly installed SPF must be removed and replaced with properly installed materials.

SHELF LIFE AND STORAGE

The shelf life of Ultra-Thane 170 is 6 months from the date of manufacture when stored in original unopened containers at temperatures from 50 to 75°F (10 to 24°C). Temperatures above 75°F (24°C) may decrease shelf life. Open drums with caution to prevent loss of blowing agent and potential personal chemical contamination. Avoid moisture contamination in containers. Containers should not be resealed if contamination is suspected. CO₂ or carbon dioxide created pressure can develop. Do not attempt to use contaminated material. Material temperature should be confirmed with a thermometer or an infrared gun.

FREIGHT CLASSIFICATION

Liquid Plastic Material - NOIBN

HEALTH & SAFETY

A Safety Data Sheet (SDS) has been prepared on the Ultra-Thane 170 HFC Wall. All personnel who will come in contact with the product should read and understand the SDS.

In addition to reading and understanding the SDS, all contractors and applicators must use appropriate respiratory, skin and eye Personal Protective Equipment (PPE) when handling and processing polyurethane chemical systems.

Spray Polyurethane Foam Alliance (SPFA®): AX-171 Course 101-R Chapter 1: Health, Safety and Environmental Aspects of Spray Polyurethane Foam and Coverings. www.sprayfoam.org

The Center for the Polyurethanes Industries (CPI): Model Respiratory Protection Program for Compliance with the Occupational Safety and Respiratory Protection Program Standard 29 CFR§1910134. www.spraypolyurethane.org.

PERSONAL PROTECTIVE EQUIPMENT

Since Ultra-Thane 170 is atomized into a very fine particle distribution during spray application, it is essential that maximum effort is made to protect the spray mechanic and others near the workplace from undue exposure. Ultra-Thane 170 Side-A is a polymeric isocyanate and, as such, can be very sensitizing, particularly from the standpoint of a VAPOR INHALATION. Some other ingredients may be sensitizing from the standpoint of skin contact or eye contact.

VAPOR INHALATION

The best form of protection against organic solvents or potentially sensitizing vapors in the workplace is a fresh air supply. Numerous manufacturers, including the 3M Company and MSA, make full face fresh air masks. For maximum protection, we recommend use of NIOSH/MSHA approved self-contained breathing apparatus with a full-face piece operated in a positive pressure mode. In well-ventilated application conditions, the use of Type C organic vapor cartridge respirators is acceptable.

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Effects of overexposure to vapor are characterized by nasal and respiratory irritation, dizziness, nausea, headache, fatigue, possible unconsciousness or even asphyxiation. Vapor inhalation problems are characterized by coughing, shortening of breath and tightness in the chest. Anyone exhibiting these types of symptoms should be immediately removed from the workplace and administered oxygen or fresh air. If the condition is prolonged or extreme, SUMMON EMERGENCY TRAINED MEDICAL ATTENTION IMMEDIATELY.

SKIN CONTACT

To prevent excessive skin contact with the sprayed product, we recommend use of fabric coveralls and neoprene or other resistant gloves. Skin contact with liquid components can result in a rash or other irritation. Wash the affected skin area with water. Wipe residual liquid from the skin with a clean cloth, then wipe the affected area with 30% solution of rubbing alcohol. Follow the alcohol wipe with repeated washings with soap and water. If a rash or other irritation develops, see a physician.

EYE CONTACT

Wear a full-face mask or OSHA-approved protective goggles. Eye Contact with liquid or sprayed components can result in corneal burns or abrasions. Upon exposure, eyes should be flushed with water for an extensive period. SUMMON EMERGENCY TRAINED MEDICAL ATTENTION IMMEDIATELY.

LIMITED WARRANTY. We warrant our Products to be free of manufacturing defects and to comply with the Product's current published physical properties when tested under controlled conditions. Our sole responsibility is limited to replacement of that portion of any Products found to be defective at the time of manufacture. There are no other warranties of any nature whatsoever, whether expressed or implied, including an express disclaimer of any warranty of merchantability or fitness for a particular purpose. Further, we disclaim any liability for damages of any type, however caused, including remote, consequential damages, or special damages resulting from any theory of liability, whether based on tort, negligence, or strict liability. We disclaim responsibility for any claims of intellectual property infringement through use of our Products in any manner. Where Products are used as a waterproofing membrane or floor coating, no warranty or guarantee is issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, abnormal wear and tear, or improper application by the applicator. Damage caused by abuse, neglect, lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded. In all instances and as a pre-condition to any available remedy, we reserve the right to conduct sample testing and performance analysis on any materials claimed to be defective, performed prior to any repairs being made by owner, general contractor, or applicator. Our limited warranty is void if repairs have been made or attempted, or if the claimed defect has been adulterated prior to our ability to conduct a formal investigative analysis.

DISCLAIMER: Please read all information in the general guidelines, technical data sheets, application guide and safety data sheets (SDS) before applying material. Products are for professional use only and should only be applied by professionals who have prior experience with our Products or have undergone specific training in their proper application. Published technical data and instructions are subject to change without notice. Contact your local representative or visit our website for current technical data and instructions. All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of these tests are not guaranteed and are not to be construed as a warranty, either expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with any product. It is the user's responsibility to satisfy himself, by his own information and tests, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his own use of the product. We do not suggest or guarantee that any hazards listed herein are the only ones that may exist. We are not liable to the purchaser, end-user, or any third party for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, our Products. Recommendations or statements, whether verbal or in writing, shall not be binding upon us unless in writing and signed by one of our authorized corporate officers. Technical and application information is provided for establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and we make no claim that these tests or any other tests, accurately represent all environments. We are not responsible for typographical errors. © General Coatings Manufacturing Corporation. All Rights Reserved. Revision ULTRA-THANE 170_08172020.EA

TECHNICAL SERVICES

Additional information, such as brochures, technical assistance, roof energy evaluations, life cycle cost analysis, and other roof management services are also available from a General Coatings Manufacturing Corp. Technical Consultant.

CAUTION

The use of foamed plastic in interior applications on walls or ceilings may present an unreasonable fire hazard unless the foam is protected by an approved, fire-resistant thermal barrier which has a finish rating of no less than 15 minutes.