

ACCUFOAM®

NOMINAL DENSITY CLOSED CELL SPRAY POLYURETHANE ROOFING FOAM

Accufoam roof foam is a two component, 1:1 ratio spray applied polyurethane foam designed for use as a seamless, monolithic, high insulating roofing system.

The Accufoam roof foam roofing system is designed for use on residential, commercial and industrial applications. Accufoam roof foam may be applied on horizontal surfaces and vertical surfaces, including suitable roofing substrates, walls, tanks and properly prepared substrates.

All surfaces to be sprayed with foam should be clean, dry, and free of dew or frost. All metal to which the foam is applied must be free of oil, grease, etc. If needed, see manufacturer for applicable primer. Two (2) inches should be the maximum thickness of each pass. Allow ten minutes between each pass to allow for cooling. Multiple layers can be applied to reach the desired thickness and R-value.

APPLICATION PARAMETERS:

Storage Temperature	60°F – 90°F
Ambient Air Temperature	40°F – 120°F
Substrate Temperature	40°F – 140°F
Moisture Content of Substrate	Less than 19%
Maximum Lift Per Pass	Not to exceed 2 inches
Viscosity at 77°F	1000 cps *Resin

EQUIPMENT SETTINGS:

Pre-Heaters: A Component-ISO	110°F – 130°F
Pre-Heaters: B Component-Resin	110°F – 130°F
Hose Heat	110°F – 130°F
Air Pressure	1100-1400 PSI-Dynamic
Mixing Ratio	1:1 by Volume
Recommended Mix Chamber Size	10-15 LBS/minute

**The values represented in the Equipment Settings chart provides initial optimum settings. Actual operating ranges will vary as ambient air; humidity, moisture, and substrate temperatures vary. Extreme conditions will affect the yield, adhesion and cured physical properties of the foam. Applicator must make adjustments as conditions vary.*

EQUIPMENT GUIDELINES

Accufoam roof foam system should be processed through commercially available spray equipment designed for that purpose by a qualified professional applicator. The proportioning equipment must be capable of maintaining all designed ratios, temperature settings, etc. as shown in the settings chart. The gun should be of the internal mix type, which provides thorough blending of the two components. The equipment shall be of the heated airless type capable of maintaining 160°F at the gun by use of both primary heaters and heated hose. The use of 2:1 transfer pumps is recommended for supplying the liquid components to the proportioner.

PROCESSING GUIDELINES

For improved yield it is recommended to warm the material in the drums. The ideal drum temperature for processing Accufoam CC roof foam is 70°F.

STORAGE

- Accufoam roof foam drums should be stored at 60°F to 90°F.
- Accufoam roof foam Resin has a six (6) month shelf life when stored properly.
- Recommended to rotate stock by proper batch dates.
- Store in a dry, well-ventilated area.
- Keep drums tightly closed when not in use and do not store in direct sunlight.

floors in cold (winter) conditions. Do not store in direct sunlight. Keep drums tightly closed when not in use and under dry air or nitrogen of 2-3 psi after they have been opened.

MATERIAL HANDLING AND SAFETY

Spraying of polyurethane foam results in the atomizing of the components to a fine mist. Inhalation and exposure to the atomized particles must be avoided. Due to the reactive nature of these components, respiratory protection is mandatory. To minimize potential risks from overexposure through inhalation, skin or eye contact, these protective measures are required: adequate ventilation, safety training for installers and other workers, use of appropriate personal protective equipment, and a medical personnel training program should be followed. It is imperative that the applicator become familiar with all available information on proper use and handling of spray polyurethane foam. Resources are available at spraypolyurethane.org, polyurethane.org or by contacting Creative Polymer Solutions LLC.

NOTE: WHEN REMOVING BUNGS FROM CONTAINERS USE CAUTION, CONTENTS MAY BE UNDER PRESSURE.

Spray polyurethane foam insulation is combustible. High-intensity heat sources such as welding or cutting torches must not be used in close proximity to any polyurethane foam. Large masses of spray polyurethane foam should be removed to an outside safe area, cut into smaller pieces, and allowed to cool before discarding into a trash receptacle. Cleanup Liquids: Nonflammable solvents should be used for cleanup. Consult your solvent manufacturer MSDS for handling precautions.

CAUTION: EXTREME CARE MUST BE TAKEN WHEN REMOVING AND REINSTALLING DRUM TRANSFER PUMPS AS TO NOT REVERSE THE A-COMPONENT AND B-COMPONENTS.

PERSONAL PROTECTION EQUIPMENT

Spraying of polyurethane foam results in the atomizing of the components to a fine mist. Inhalation and exposure to the atomized particles must be avoided. Applicators must use personal protective equipment recommended by the Center of Polyurethanes Industry for use in high-pressure spray foam application. Personal protective equipment includes, but not limited to:

- Full-face mask or hood with fresh air source

- Fabric coveralls
- Non-permeable gloves
- Solvent-resistant gloves when handling materials and cleaning solvents

NOTE: EXPOSURE MAY OCCUR EVEN WHEN NO NOTICEABLE ODOR IS ENCOUNTERED.

Please visit www.spraypolyurethane.org for additional information on appropriate personal protection equipment selection and use.

GENERAL

Accufoam roof foam may be used on non-combustible and combustible roof decks and maintain tremendous wind uplift capacities throughout the systems life cycle. Properly maintained roof systems may outperform the structure lifecycle. Always refer to Application Specifications, Care and Maintenance Bulletins and updated Code Compliance reports for detail. The spray-applied foam plastic insulation is used in Type V-B construction under the IBC and in dwellings under the IRC. The sprayed product properly installed, results in a seamless, monolithic insulation adhered to the substrate. Accufoam spray systems are technologically advanced materials and should be applied only by trained, qualified, experienced polyurethane spray roofing system applicators.

The Spray Foam Insulation shall be spray-applied on the jobsite using a volumetric positive displacement pump. The spray-applied foam plastic insulation shall not be used in electrical outlets or junction boxes or in continuous contact with rain or water. The spray-applied foam plastic insulation shall be sprayed onto a substrate that is protected and clean from any debris or weather-related conditions during application.

INHALATION

If breathing has stopped, artificial respiration must be promptly applied. If breathing is short, oxygen (if available) should be administered by trained medical personnel. Obtain Medical Attention immediately.

MECHANICAL VENTILATION REQUIREMENTS

A mechanical ventilation system is required to be utilized in a workplace where spray-applied polyurethane foam is applied. The mechanical ventilation system to be used in workspace needs to be able to exhaust air directly to the exterior of the building.

PROXIMITY TO HEAT SOURCES

Keep a minimum distance of three (3) inches between Accufoam roof foam and heat sources such as combustion appliance flues, recessed light fixtures, insulation contact (IC) rated light fixtures, fireplace flues, etc.

FINISHED FOAM PROTECTION

The finished surface of the sprayed polyurethane foam should be protected from the adverse effects of direct exposure of ultraviolet light from the sun. This exposure will cause dusting and discoloration, leading to a reduction of topcoat adhesion. It is strongly recommended that Accufoam roof foam is coated with a minimum basecoat emulsion within 48 hours of application.

SPRAY TECHNIQUE

- Always spray with the spray gun at a 90-degree angle to the substrate.
- For horizontal surfaces, walking backwards following proper safety precautions. Spray in a back-and-forth motion, 24" -36" above prepared deck leaving a feathered edge. Wet lap may be a 2-3 ply overlap depending on required thickness.
- For vertical surfaces, maintain parallel gun angle and distance. Apply Accufoam roof foam in a back-and-forth spray pattern 18"-24" from substrate. Application pattern width is applicators comfort and determined by applicator.
- It is recommended that internal temperature is under 100 degrees before additional passes of spray foam are applied.
- Spray the full thickness required in one single pass. Spraying in layers or excessive passes will lead to lower yield results.
- When applying the material in more than one pass, 10 minutes is recommended between passes.

CHANGEOVER

**If you are changing in to Accufoam roof foam from another product you must not allow the other product to contaminate the Accufoam Resin drum.*

- Make sure the drum pump and pump housing are completely free of the previous resin.
- Put the drum pump into the drum of Accufoam Resin.
- If you have a recirculation/pressure-relief line, pump the

contents to the previous drum or into a waste container with the transfer pumps.

- Connect the recirculation/pressure-relief line to the Accufoam drum lid. Remove the gun from the hose manifold and pump the hose contents into the previous drum until you see a color change or until you reach the air pocket in the line.
- Keep the hose heat on at 110°F during changeover.
- There will be some mixture of the two resins in the line which you can run into a container for disposal or spray out as foam for disposal.
- Spray a test pass and watch for good foam with no contamination.
- Make sure recommended settings above are followed before installing Accufoam CC as outlined above.

BEFORE SPRAYING ACCUFOAM FOR THE FIRST TIME, YOU SHOULD CONTACT CREATIVE POLYMER SOLUTIONS TECHNICAL SERVICES FOR INSTALLATION GUIDANCE.

Do not recirculate or mix Accufoam roof foam or other manufacturers components into Accufoam containers. It is the responsibility of the professional applicator to thoroughly understand all equipment technical information and safe operating procedures that pertain to a spray polyurethane foam application.

This spray system may be applied in passes of uniform thickness from a minimum of half inch (1/2") inch to a maximum of two (2) inches. Accufoam must not be applied in a thickness exceeding two inches in a single pass. If this thickness is exceeded, it will adversely affect the quality and physical properties of the finished product and the internal temperature buildup within the foam may cause charring or thermal degradation.

The recommended pass on vertical applications is two (2) inches. Allow ten minutes between each pass to allow for cooling. Multiple layers can be applied to reach the desired thickness and R-value.

PROPER STORAGE OF RAW MATERIALS

Shelf life is six (6) months from date of manufacture when stored in original unopened containers at 60°F to 90°F. Store in a dry and well-ventilated area. Raw materials must be kept warm. Cold chemicals can cause poor mixing, pump cavitation, or other process problems due to higher viscosity at lower temperatures. Storage temperatures should be 60°F to 90°F for 24 hours before use and should not exceed 90°F. Avoid storing drums on concrete or metal

ENVIRONMENTAL CONSIDERATIONS AND SUBSTRATE CONDITIONS

Applicators must recognize and anticipate weather conditions prior to application to ensure highest-quality foam and to maximize yield.

Ambient air, substrate temperatures and moisture are all critical factors. Extremes in ambient air and substrate temperature will influence the chemical reaction of the two components, directly affecting the yield, adhesion and the resultant physical properties of the foam insulation.

Proper applications may require adjustments to one or more of the followings: spray techniques, substrate, application or jobsite temperatures. The maximum in-service temperature for all areas shall not exceed 180°F.

Accufoam should be spray-applied to substrates when ambient air and substrate temperatures are within 40°F-140°F. All substrates to be sprayed must be free of dirt, soil, grease, oil and moisture prior to application.

The moisture content of the substrate should not exceed 19%. Polyurethane foam cannot be applied to any substrate that has surface moisture such as rain, condensation, dew, frost, etc. Cold temperatures and high wind speeds slow the exothermic reaction and can lead to poor adhesion, increased density, loss of yield, and thermal shock. Improperly installed foam must be removed and replaced with properly installed spray polyurethane foam. It is the responsibility of the applicator to thoroughly understand all equipment technical information, physical parameters and operating procedures that pertain to a spray polyurethane foam application.

SKIN EXPOSURE

Immediately remove any contaminated clothing. Immediately wash skin with water and soap and rinse thoroughly. The affected area should immediately be washed with generous amounts of water from a safety shower or other water source.

EYE EXPOSURE

Immediately rinse opened eye for several minutes under running water. Consult trained medical personnel immediately.

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