



FOAMSULATE™ 50

TECHNICAL DATA

Spray Polyurethane Foam
0.5 pcf Density
ICC ESR - 3081

EQUIPMENT AND APPLICATION PARAMETERS:

Preheater Temperature "A" & "B" Side	125°F
Hose Temperature "A" & "B" Side	125°F
Mixing Ratio	1 to 1 By Volume Of "A" to "B"
Application Pressures	800 - 1,000 PSI
Substrate Temperature	> 50°F
Ambient Air Temperature	> 40°F
Thickness Per Pass	6" Maximum

SURFACE BURNING CHARACTERISTICS

Flammability	ASTM E-84 Class I At 4 Inches
Flame Spread < 20	
Smoke Development < 400	

CREDENTIALS CHART

ICC ES Report Report # ESR-3081
ICC ES AC377, Appendix A1.2.2 and Appendix X
ASTM Method E84
Meets: NFPA 259, 285 and 286
Maximum Thickness Tested : (Tested Only - Not a Limit on application)
Wall Cavities = 8 Inches Ceiling Cavities in Attics and Crawlspaces = 12 Inches



Exterior Wall System Component In
Accordance With ANSI/NFPA 285.
See Buildings Materials Directory R38039.

PRODUCT TYPE: Premium Spray Products, Inc. Foamsulate™ 50 is a two component, one to one by volume spray applied polyurethane foam. To produce Foamsulate™ 50 requires the use of an "A" component (ISO) and a blended "B" component (RESIN) which contains ZERO Ozone Depleting blowing agents, catalysts, polyols and fire retarding materials.

GENERAL PROPERTIES: Premium Spray Products, Inc. Foamsulate™ 50 is a low viscosity, 0.5 pcf density open cell insulating material. Foamsulate™ 50 is designed to provide significant control of air infiltration along with a high R-value per inch. When properly installed by a trained contractor Foamsulate™ 50 quickly expands to fill the cracks, crevices, gaps and voids that exist in every structure. In addition Foamsulate™ 50 will conform to the curves, irregular surfaces and spaces to form a superior thermal envelope around your entire structure.

RECOMMENDED USES: Foamsulate™ 50 is an insulation system designed for use in residential, commercial and industrial applications. Use in lieu of more traditional forms of insulating materials such as fiberglass, cellulose or other loose fill products. Typical areas where spray polyurethane foam is applied are: exterior walls, vented and un-vented attic assemblies, between floors, etc.

THERMAL BARRIER: Current International Residential Code (IRC) and International Building Code (IBC) require that spray polyurethane foam be separated from the building interior by a 15-minute thermal barrier. The most common approved 15 minute thermal barrier is ½" thick gypsum board. Consult current IRC and IBC publications for a complete list of approved 15-minute thermal barriers. Explanation of the thermal barrier requirement is available on Premium Spray Products, Inc. ICC ESR - 3081 Report and at www.iccsafe.org.

IGNITION BARRIER: Building codes officials will accept a spray polyurethane foam application with and without an ignition barrier under certain conditions. Foamsulate 50 has been approved for use in attics and crawlspaces per ICC-ES AC377, Appendix A1.2.2 and Appendix X. Explanation of these requirements is available on Premium Spray Products, Inc. ICC ESR - 3081 Report and at www.iccsafe.org.

VAPOR BARRIER: Open cell foam insulation is vapor permeable and will allow some diffusion of moisture through the product. Consult local building code requirements for use of a vapor barrier. Consider using a vapor barrier in U.S. climate zones 4 and higher. Consult current IRC and IBC publications for climate zone tables.

EQUIPMENT AND APPLICATION PARAMETERS: The values represented in the Equipment and Application Properties 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.

STORAGE: Shelf life is six (6) months from date of manufacture when stored in original unopened containers between the temperatures of 65°F to 85°F.

PHYSICAL PROPERTIES

R-VALUE (Aged)	3.7 / Inch	ASTM C 518
Core Density	0.5 pcf	ASTM D 1622
Open Cell Content	> 97%	ASTM D 1940
Sound Transmission Coefficient	42	ASTM E 413
Water Vapor Transmission - Permeance	21 Perms At 1"	ASTM E 96
Air Leakage Rate	<0.02(L/s)/M2	ASTM E 283
Noise Reduction Coefficient	0.10	ASTM C 423
Tensile Strength (PSI)	5.19	ASTM D 1623
Dimensional Stability	< 5%	ASTM D 2126

To the best of our knowledge, all technical data contained herein is true and accurate as of the date of issuance and subject to change without prior notice. User must contact Premium Spray Products to verify correctness before specifying or ordering. We guarantee our products to conform to the quality control standards established by Premium Spray Products. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of the product. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY PREMIUM SPRAY PRODUCTS EXPRESSED OR IMPLIED; STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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FOAMSULATE™ 50

Spray Polyurethane Foam
0.5 pcf Density · ICC ESR - 3081
For Professional Use Only

Experience the
Premium Difference

General Information

Application Guidelines

Foamsulate™ 50 is suitable for application to most construction materials including wood, masonry, concrete, and metal. All surfaces to be sprayed with foam should be clean, dry, and free of dew or frost. All metal to which the foam is to be applied must be free of oil, grease, etc. Six (6) 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.

Substrate temperature at the time of the Foamsulate™ 50 application should be between 50°F to 120°F, the warmer the surface, the better the adhesion. For temperatures outside of this range you must consult the Technical Services department prior to application.

As with all spray polyurethane foam systems, improper application techniques should be avoided. Examples of improper techniques include, but are not limited to, excessive thickness of spray polyurethane foam, off ratio material and spraying into or under rising foam. Potential results of improperly installed spray polyurethane foam include: dangerously high reaction temperatures that may result in fire and offensive odors that may or may not dissipate. 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 and safe operating procedures that pertain to a spray polyurethane foam application.

When changing the "B" side (resin) to another type of spray polyurethane foam it is very important that the supply hoses and pumps are completely drained. Mixing of dissimilar product types will have an adverse effect on the finished product.

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.

Equipment and Component Ratios

Polyurethane foam systems should be processed through commercially available spray equipment designed for that purpose. Foamsulate™ 50 "A" side is connected to the isocyanate pump and the Foamsulate™ 50 "B" side is connected to the resin pump. The proportioning pump ratio is 1 to 1 by volume. The pre-heater initial setting should be 125°F. The initial hose temperature should be 125°F. Equipment must be capable of maintaining temperature settings.

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. Protective coatings designed for use with polyurethane foams are available from Premium Spray Products, Inc.

Safe Handling and Storage of Liquid Components

When removing bungs from containers use caution, contents may be under pressure. Loosen the small bung first and let any built up gas escape before completely removing. The resin "B" component will froth at elevated temperatures. 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 the Center for Polyurethanes at www.spraypolyurethane.org.

Health and Safety

Due to the reactive nature of these components respiratory protection is mandatory. The vapors and liquid aerosols present during application and for a short period thereafter must be considered – and appropriate protective measures taken – to minimize potential risks from overexposure through inhalation, skin, or eye contact. These protective measures include: adequate ventilation, safety training for installers and other workers, use of appropriate personal protective equipment, and a medical surveillance program. It is imperative that the applicator read and become familiar with all available information on proper use and handling of spray polyurethane foam. Additional information is available at spraypolyurethane.org, polyurethane.org, sprayfoam.com or by contacting the technical services department of Premium Spray Products, Inc.

Storage and Use of Chemicals

Cold chemicals can cause poor mixing, pump cavitations, or other process problems due to higher viscosity at lower temperatures. Storage temperatures should be 65°F to 85°F for several days before use, and should not exceed 90°F. Do not store in direct sunlight. Keep drums tightly closed when not in use and under dry air or nitrogen pressure of 2-3 psi after they have been opened. Shelf life is six (6) months from date of manufacture when stored in original unopened containers at 65°F to 85°F. Store in a dry and well-ventilated area.

Your Local Authorized Contractor



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