



## FOAMSULATE 2.0

### 2 LB Closed Cell Polyurethane Spray Foam System

#### DESCRIPTION

Master Packs' FOAMSULATE 2.0 system is a two component, one-to-one by volume spray applied rigid polyurethane foam. It provides a self adhering, seamless, high insulation value material. FOAMSULATE 2.0 utilizes an EPA approved, zero ozone-depleting, blowing agent. It is designed for use in interior commercial and residential construction applications, and is compatible with most common construction materials. FOAMSULATE 2.0 provides excellent insulation while also being a vapor retarder and air seal.

#### ADVANTAGES

- High R-value
- High Yields
- Air Barrier
- Vapor Retarder
- Water Resistive Barrier
- Good Dimensional stability
- Structural Properties
- Ease of Application
- High closed cell content
- Zero ODP
- Seamless Insulation

For proper use of this Master Pack insulating material or any polyurethane foam, please refer to Master Packs' application information and any of the following codes or guidelines:

- *API Fire Safety Guidelines for Use of Rigid Polyurethane and Polyisocyanurate Foam Insulation in Building Construction (AX230)*
- *International Building Code, (IBC), Chapter 26*
- *International Residential Code, (IRC), Section R314 and R806*

Maximum thickness in walls is 8"

Maximum thickness in ceilings is 12"

#### TYPICAL PHYSICAL PROPERTIES

##### LIQUID RESIN AS SUPPLIED

	A	B
Specific Gravity @ 70Of	1.24	1.17
Viscosity (Brookfield) cps	250	650

##### AS CURED

Core density ASTM 1622	2.0 pcf
Compressive Strength ASTM 1621	27 psi
Tensile Strength ASTM D-1623 Type C	41psi
R-value at 1 inch	6.6
Closed Cell Content ASTM D-6226	> 90%
Dimensional Stability ASTM D-2126	< 5%
Moisture Vapor Transmission ASTM E-96	1.3 perm in
Air Permeance ASTM E-283	0.000 cfm/ft <sup>2</sup> @ 1.57 psf
Flammability ASTM E-84 at 4 inches	Flame Spread <25 Smoke Dev < 450
Max Service Temperature	180 o F

**Note:** The above values are average values obtained from laboratory experiments and should serve only as guidelines. Free rise core density should not be confused with overall density. Overall densities are always higher than free rise core densities and take into account skin formation, thickness of application, environmental conditions, etc.

32302 Camino Capistrano #201, San Juan Capistrano, CA 92675 • 949-487-2068 • (fax) 949-487-2312

[www.MASTERPKG.com](http://www.MASTERPKG.com) • [sales@masterpkg.com](mailto:sales@masterpkg.com)

## **FOAMSULATE 2.0 APPLICATION INFORMATION**

### **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 70-85°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 months from date of manufacture when stored in original unopened containers at 50-80°F.

### **SAFE HANDLING 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. 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 "MDI-Based Polyurethane Foam Systems: Guidelines for Safe Handling and Disposal" publication AX-119 published by the Alliance For The Polyurethanes Industry, 1300 Wilson Blvd, Suite 800, Arlington, VA 22209.

### **EQUIPMENT AND COMPONENT RATIOS**

Polyurethane foam systems should be processed through commercially available spray equipment designed for that purpose. FOAMSULATE 2.0 B-side (white drum) is connected to the resin pump and the FOAMSULATE 2.0 A-side (black drum) is connected to the isocyanate pump. The proportioning pump ratio is 1 to 1 by volume. The pre-heater and hose temperature should be set and able to maintain 130°F.

### **APPLICATION GUIDELINES**

FOAMSULATE 2.0 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. Two inches should be the maximum thickness of each layer. 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 Foamsulate application should be between 50-120°F, the warmer the substrate, the better the adhesion. When substrates to be sprayed are cooler than 60°F, a half inch pass should be applied with the second pass following as soon as the original pass is no longer tacky to the touch. For service temperatures in the range of 120-180°F, the substrate should be 120°F or above at the time of spraying.

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 SPF, off ratio material and spraying into or under rising foam. 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 foam must be removed and replaced with properly installed SPF.

SPF insulation is combustible. High intensity heat sources such as welding or cutting torches must not be used in close proximity to any polyurethane foam.

### **FINISHED FOAM PROTECTION**

The finished surface of the sprayed polyurethane foam should be protected from the adverse effects of sunlight ultraviolet rays which can cause dusting and discoloration. Protective coatings designed for use with polyurethane foams are available from Master Pack.

### **HEALTH & SAFETY**

Due to the reactive nature of these components, 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.

### **CODE COMPLIANCE**

Building codes require the installation of an approved thermal barrier between the foam insulation and the occupied space such as ½ inch gypsum board or other tested and approved material when the foam covers a large area of the building interior. Refer to specific building codes for details. Contact Master Pack for specific alternate approvals for Foamsulate 2.0.

The information herein is to assist customers in determining whether our products are suitable for their applications. Customer assumes full responsibility for quality control, testing, and determination of suitability of product for its intended use or application. Master Pack warrants only that the material shall meet its specifications; this warranty is in lieu of all other written, expressed or implied warranties and Master Pack expressly disclaims any warranty of merchantability, fitness for a particular purpose, or freedom from patent infringement. Accordingly, buyer assumes all risks whatsoever as to the use of the material. Buyer's exclusive remedy as to any breach of warranty, negligence or other claim shall be limited to the purchase price of the material. Failure to adhere to any recommended procedures shall relieve Master Pack of all liability with respect to the material or the use thereof.