



# The uses for Versi-Foam® are limited only by the imagination ...























Versi-Foam® is a portable and disposable low-pressure spray foam insulation system. It is ideal for insulating, air sealing, sound dampening, condensation control, caulking, and void filling. Versi-Foam® applies to commercial and residential construction, plant and facility maintenance, HVAC equipment, roofing repair, marine flotation and insulation, pool and spa insulation, stage/film props, special effects, insulation used within trucks, trailers, buses, RVs, and much more.



## Why use Versi-Foam®?

### High R-Value

The R-value of Versi-Foam® closed-cell foam is significantly higher than other types of insulation. This means that buildings with smaller frame sizes can still be insulated to today's energy efficiency standards.

#### **Excellent Air Sealant**

Closed-cell polyurethane foams like Versi-Foam® provide an airtight barrier by blocking airflow through cracks and fissures in the structure, allowing it to perform closer to its full rated R-value. Independent testing has shown that at 18°F, with a 15 mph wind, the R-value of closed-cell polyurethane foam drops from 19 to 18, whereas batt insulation drops from 19 to 7.

### **Energy Efficiency**

Air continuously moves through holes, cracks, and fissures in the building envelope. According to the U.S. Department of Energy, about 1/3 of this air infiltrates through openings in ceilings, walls, and floors. Versi-Foam® will seal these areas off, increasing energy efficiency through reduced thermal transfer.

### **Pest Resistance**

By sealing off holes and cracks in the structure, Versi-Foam® will help block the intrusion of insects and rodents, rendering a cleaner, healthier home or facility environment.

#### Low Permeance

Versi-Foam® seals against moisture and will not be damaged by minor leaks or condensation. It has very low permeance (the ability for water vapor to pass through). This reduces condensation within the building envelope and protects against the growth of mold & mildew, which may ultimately extend the life of the structure.

### **Personal Comfort**

In addition to preventing air infiltration, Versi-Foam® also serves as a barrier to dirt, allergens, pollutants, pests, mold, and moisture – increasing the overall comfort and health of occupants.

### **Structural Advantages**

Closed-cell foam will add to the structural integrity of a building. High-density foam may be walked on or nailed into.

### Extreme Temperature Tolerance

Many Versi-Foam® systems are tolerant to temperatures from -250°F to +250°F, making them ideal for the insulation of piping systems. See data specification sheets before use to ensure that the Versi-Foam® system will be adequate for the desired application.

### Portability

Manufacturing plants and other industrial facilities often require insulation and sealants in their maintenance and repair schedules; however facility logistics often make

it impossible to use a conventional foam machine. Versi-Foam® can be easily transported to any location where foam is needed – be it a factory job or the crawl space in a home. No outside source of power or pressure is required.

### Versatility

Often used as an artistic medium, Versi-Foam® has been featured in several major motion pictures, theatrical productions, television shows, museums, theme parks, displays, and haunted houses. Versi-Foam® can be molded, carved, sanded, cut, shaved, painted, coated – even covered with polyester resins. Create any surface texture in any shape and color.

### **Spray Applied**

Versi-Foam® is a spray-applied product – perfect for applications on irregular surfaces and in spaces where traditional insulation would be inadequate, such as corrugated steel buildings, pipes, tanks, and ductwork.





## **Versi-Foam®** Product Line

Versi-Foam® expandable low-pressure polyurethane foam systems are portable and ready to use. Versi-Foam® systems are available in a wide variety of formulations and sizes to suit your specific insulation needs.

Versi-Foam® **Standard Density** (1.75 pcf) Systems are the most commonly utilized in the Versi-Foam® product line. All are available in a standard formula and Class I\* flame-retardant formula. Systems 9, 15 and 50 are also available in a Slow Rise formula.\*\*

- System 1: Yields 12 ft<sup>2</sup> at 1" or 1 ft<sup>3</sup>
- System 9: Yields 108 ft<sup>2</sup> at 1" or 9 ft<sup>3</sup>
- System 15: Yields 200 ft<sup>2</sup> at 1" or 16.5 ft<sup>3</sup>
- System 50: Yields 600 ft<sup>2</sup> at 1" or 50 ft<sup>3</sup>

Versi-Foam® **High Density** (2.8 pcf) Systems are designed for roof repairs, cryogenic applications and where load-bearing requirements exist.

- System 10: Yields 120 ft<sup>2</sup> at 1" or 10 ft<sup>3</sup>
- System 33: Yields 396 ft<sup>2</sup> at 1" or 33 ft<sup>3</sup>

Versi-Foam® **Hy-Flo** (1.75 pcf) Systems are Class I, constant pressure systems consisting of short-filled chemical tanks that are more heavily pressurized – ideal for larger jobs that require a consistent spray pattern from start to finish. The Hy-Flo 700 contains two sets of A and B tanks and necessary accessories. The Hy-Flo 350 contains a single set of A and B tanks and no accessories.

- Hy-Flo 700: Yields 700 ft<sup>2</sup> at 1" or 58 ft<sup>3</sup>
- Hy-Flo 350: Yields 350 ft<sup>2</sup> at 1" or 29 ft<sup>3</sup>

The Versi-Foam® Low Density, Open Cell, Class I (0.75 pcf) System is a high-yield, flame-retardant product. It offers a cost-effective means to insulate, control air movement and reduce sound transmission. It has a lower R-value and higher permeability than closed cell Versi-Foam® systems.

- System 31 Class I: Yields 380 ft<sup>2</sup> at 1" or 31 ft<sup>3</sup>
- System 100 Class I: Yields 1,200 ft<sup>2</sup> at 1" or 100 ft<sup>3</sup>







Note: Published yields are theoretical and vary based on several factors, including ambient conditions and specific application.

<sup>\*</sup> The Class I systems (available in Systems 1, 9, 15, & 50; and standard in the System 31 and 100 Class I, Hy-Flo 700, & Hy-Flo 350) contain additional flame retardants in accordance with the ASTM E-84 testing.

<sup>\*\*</sup> The Slow Rise systems (available in Systems 9, 15 & 50) and Open Cell systems have a delayed expansion time of 2-3 minutes. This is useful in applications where the foam needs to flow to distant areas before it solidifies.



# **Versi-Foam®** Product Properties

| UNIT               | ТҮРЕ  | DENSITY  | YIELD<br>cubic ft | YIELD<br>sq ft @ 1" | R-VALUE<br>@ 1" | CLOSED CELL<br>CONTENT | SYSTEM CONTAINS:   |  |  |
|--------------------|---|----------|-------------------|---------------------|-----------------|------------------------|--|--|--|
| System 1           | Standard  | 1.75 pcf | 1                 | 12                  | 7.7             | > 90%                  | - 2 chemicals in aerosol cans<br>- 1 thumb-roll dispenser & hose   |  |  |
| System 1 Class I   | Flame Retardant   | 1.75 pcf | 1                 | 12                  | 6.7             | > 95%                  | - 2 nozzles  |  |  |
| System 9           | Standard  | 1.75 pcf | 9                 | 108                 | 7.7             | > 90%                  | - 2 chemical components<br>- 10 ft gun/hose assembly   |  |  |
| System 9 SR        | Slow Rise   | 1.75 pcf | 9                 | 108                 | 7.7             | > 90%                  | - 10 nozzles, 3 fan spray tips<br>- nitrile gloves<br>- petroleum jelly  |  |  |
| System 9 Class I   | Flame Retardant   | 1.75 pcf | 9                 | 108                 | 6.7             | > 95%                  | , and the second |  |  |
| System 15 Standard |   | 1.75 pcf | 16.5              | 200                 | 7.7             | > 90%                  |  |  |  |
| System 15 SR       | 1000 (100 A 100 A |          | 16.5              | 200                 | 7.7             | > 90%                  |  |  |  |
| System 15 Class I  |   |          | 16.5              | 200                 | 6.7             | > 95%                  |  |  |  |
| System 10          | High Density  | 2.80 pcf | 10                | 120                 | 7.7             | > 90%                  |  |  |  |
| System 31 Class I  | Low Density, Open Cell,<br>Flame Retardant  | 0.75 pcf | 31                | 380                 | 4.0             | 8%                     |  |  |  |
| System 50          | System 50 Standard  |          | 50                | 600                 | 7.7             | > 90%                  | - 2 chemical components<br>- 15 ft gun/hose assembly   |  |  |
| System 50 SR       | Slow Rise   | 1.75 pcf | 50                | 600                 | 7.7             | > 90%                  | - 10 nozzles, 3 fan spray tips<br>- nitrile gloves<br>- wrench   |  |  |
| System 50 Class I  | Flame Retardant   | 1.75 pcf | 50                | 600                 | 6.7             | > 95%                  | - petroleum jelly  |  |  |
| System 33          | High Density  | 2.80 pcf | 33                | 396                 | 7.7             | > 90%                  |  |  |  |
| System 100 Class I | Low Density, Open Cell,<br>Flame Retardant  | 0.75 pcf | 100               | 1,200               | 4.0             | 8%                     |  |  |  |
| Hy-Flo 700         | Flame Retardant   | 1.75 pcf | 58                | 700                 | 6.7             | > 95%                  | - 2 sets of chemical components<br>- 20 ft gun/hose assembly<br>- 12 fan spray nozzles, 3 nozzles  |  |  |
| Hy-Flo 350*        | Flame Retardant   | 1.75 pcf | 29                | 350                 | 6.7             | > 95%                  | - 12 fan spray nozzles, 3 nozzles     - nitrile gloves     - wrench & petroleum jelly  |  |  |

\*The Hy-Flo 350 is intended for use as a spare set of chemicals for the Hy-Flo 700. It consists of a single set of chemical components and no accessories.

Note: Published yields are theoretical and vary based on several factors, including ambient conditions and specific application.







MEDIUM



## How To Use Versi-Foam®

To operate the medium and large size Versi-Foam® systems, open the tank valves, click a nozzle into place, disengage the safety, and point the dispensing gun at your application target. Pull the trigger. It's that easy!

Temperature is an important factor in producing good quality foam. For best performance, both the chemical temperature and target surface temperatures should be between 65° F and 90° F. Warmer or cooler temperatures may result in yield, adhesion, and foam quality issues. Consult the temperature strip located on all medium and large size Versi-Foam® systems to ensure that the chemicals are in the recommended temperature range before beginning your application.

For the best spray pattern, stand 18 to 24 inches away from your target. You will control the velocity of the chemical flow by how far you pull the trigger of our patented U-Control dispensing gun. To begin, pull the trigger all the way back and then ease it forward until you find the position that gives you the desired results.

Spray a strip around the perimeter of the area you wish to cover. With a back-and-forth motion of your wrist, fill in the area from top to bottom. The faster you move your wrist, the thinner the layer of foam.

The closed cell foam will expand up to six times its original volume. The open cell foam will expand up to ten times its original volume, so be careful not to apply too much in one pass. The slow rise and open cell kits will be fully expanded and

tack free to the touch in approximately 2-3 minutes. All other formulations will be fully expanded and tack-free to the touch in approximately 30-40 seconds.

If you see that you need heavier coverage after the first layer has fully cured, you may apply additional foam on top of previous layers. If your application requires a thickness in excess of 2 inches, we recommend applying it in multiple passes. Applying too much foam in one pass may result in reduced yield, an uneven surface, and/or foam sagging before curing completely.

If you pause during your application for more than 30-40 seconds, foam may cure in the dispensing gun nozzle, clogging it. Should this happen, simply replace the nozzle with one of the multiple spare nozzles included with your Versi-Foam® system.

Personal Protective Equipment (PPE) is required when applying spray foam. Suggested PPE includes a fit-tested respirator, chemical resistant clothing and gloves, and safety goggles. Nitrile gloves are included with every Versi-Foam® system. Consult the product MSDS and operating instructions for PPE guidelines. Contact RHH Foam Systems or your distributor for details and information on where to purchase.







# **Versi-Foam®** Coverage

### APPROXIMATE SQUARE FOOT COVERAGE BASED ON THICKNESS

|                 |          | YIELD    | INSULATION THICKNESS |       |      |     |      |     |      |     |      |     |
|-----------------|----------|----------|----------------------|-------|------|-----|------|-----|------|-----|------|-----|
| UNIT            | DENSITY  | cubic ft | sq ft @ 1"           | 1"    | 1.5" | 2"  | 2.5" | 3"  | 3.5" | 4"  | 4.5" | 5"  |
| System 1        | 1.75 pcf | 1        | 12                   | 12    | 8    | 6   | 4.8  | 4   | 3.4  | 3   | 2.7  | 2.4 |
| System 9        | 1.75 pcf | 9        | 108                  | 108   | 72   | 54  | 43   | 36  | 31   | 27  | 24   | 22  |
| System 15       | 1.75 pcf | 16.5     | 200                  | 200   | 133  | 100 | 80   | 67  | 57   | 50  | 45   | 40  |
| System 10       | 2.80 pcf | 10       | 120                  | 120   | 80   | 60  | 48   | 40  | 34   | 30  | 27   | 24  |
| Sys 31 Class I  | 0.75 pcf | 31       | 380                  | 380   | 253  | 190 | 152  | 126 | 108  | 95  | 84   | 76  |
| System 50       | 1.75 pcf | 50       | 600                  | 600   | 400  | 300 | 240  | 200 | 171  | 150 | 133  | 120 |
| System 33       | 2.80 pcf | 33       | 396                  | 396   | 264  | 198 | 158  | 132 | 113  | 99  | 88   | 79  |
| Sys 100 Class I | 0.75 pcf | 100      | 1,200                | 1,200 | 800  | 600 | 480  | 400 | 343  | 300 | 267  | 240 |
| Hy-Flo 700      | 1.75 pcf | 58       | 700                  | 700   | 467  | 350 | 280  | 233 | 200  | 175 | 156  | 140 |
| Hy-Flo 350      | 1.75 pcf | 29       | 350                  | 350   | 233  | 175 | 140  | 117 | 100  | 88  | 78   | 70  |

NOTE: Published yields are theoretical and vary based on several factors, including ambient conditions and specific application.







## **Versi-Foam®** FAQs

# How does closed cell Versi-Foam® compare to fiberglass & cellulose?

Versi-Foam® has approximately twice the R-value, provides an airtight thermal seal, resists moisture and mold, seals hard to insulate areas, adds structural stability, and more – leading to significant energy savings and an overall better return on investment.

More "traditional" insulating materials such as fiberglass and cellulose are less expensive upfront; however Versi-Foam® offers the better value in the long run.

# What sets Versi-Foam® apart from other spray foam kits?

Our patented U-Control dispensing gun provides complete control over how much foam is dispensed by how hard the user pulls the trigger on the applicator gun.

The gun allows the user to spray foam at a rate of approximately 6 pounds per minute, or so slowly that he can write his name with it. This is the key to a consistent spray pattern and surface texture. The metered spray capability also saves material and clean-up time.

# Can Versi-Foam® be injected into a closed wall cavity?

Application to existing closed walls is not recommended due to the pressure created by expansion. Damage to drywall and plaster will occur if the cavities are overfilled.

#### Are the tanks refillable?

The Department of Transportation forbids the refilling of tanks. Once completely emptied, the tanks should be disposed of as normal industrial waste, in accordance with the operating instructions and local regulations. A sanitary land fill is recommended.

### Is Versi-Foam® waterproof?

All Versi-Foam® systems except for the System 31 and 100 Class I are water-resistant, but not waterproof. Minimal exposure to moisture will not affect these foams, but the foam may be compromised if submerged under water for a while. Conversely, the System 31 and 100 Class I will absorb and retain water if exposed.

Therefore, the System 31 and 100 Class I should not be used in areas where moisture may be present.

## Is Versi-Foam® temperature sensitive?

Temperature is key in producing good quality foam. For the majority of the closed-cell Versi-Foam® systems, ideal yield/expansion and adhesion will result when the substrate and chemical temperatures range between 65°F and 90°F. Medium and large sized Versi-Foam® systems come complete with temperature strips indicating chemical temperature. Consult the operating instructions for specific temperature requirements.

# Does Versi-Foam® qualify as a vapor barrier?

A vapor retarder of some degree is required on the warm side of the building assembly. A vapor barrier is defined as a Class I vapor retarder (perm rating less than 0.1) and can be achieved with sheet polyethylene (Visqueen).

Versi-Foam® closed cell foams will achieve a Class II (0.1< perm rating <1) or Class III (1< perm rating <10) vapor retarder rating, depending on the specific product type as well as the applied thickness. Building codes call out for different vapor retarder requirements (Class I, II or III) depending on the region of the country. Consult local codes to determine which level of vapor retarder is required.

## Does Versi-Foam® need to be covered?

By code, polyurethane foam must be covered with a 15 minute thermal barrier. A ½ inch of drywall is most commonly used. For uninhabited areas, such as attics and crawlspaces that are accessed for maintenance only (not used for storage) an ignition barrier may be used in lieu of a thermal barrier. Contact RHH Foam Systems for recommended thermal and ignition barrier products.

# Does a kit need to be used the same day it's opened?

Only the System I kits need to be used same day. All larger systems may be shut down and re-used again.

If the kit will be used infrequently, a weekly maintenance routine is needed to prevent gun and hose blockage. See the operating instructions for weekly maintenance instructions.

#### Can Versi-Foam® be painted?

Yes, once the foam is fully cured it can be painted with any product that is not heavily saturated in MEK (Methyl Ethel Ketone). This should not be an issue in products made for interior/household applications.

Other than the MEK concentration, the type of paint used should be determined by the easiest method of application (paint, spray, etc) and the desired finish.

### Are there any health hazards associated with Versi-Foam®?

Versi-Foam® does not contain any urea formaldehyde, VOCs, CFCs or Penta-BDEs. The use of proper Personal Protective Equipment (PPE) is required during application. Please see the MSDS and operating instructions for PPE guidelines.



## Versi-Tite®

Versi-Tite® Window and Door is a one-component polyurethane foam used to seal small gaps and cavities. It dispenses from the can in a caulking bead for easy use in sealing around doors, windows, pipes, outlets or any other penetrations.

Versi-Tite\* Window and Door is a moisture-cured product and should not be used to fill voids larger than 1 inch. For large voids, Versi-Foam\* should be used.

The minimal expansion of Versi-Tite\* allows for use around door and window framing. For this application, Versi-Tite\* should be dispensed as a caulking bead, filling

approximately 35% to 50% of the cavity opening. The foam will expand to fill the entire cavity.

By sealing off air leaks with Versi-Tite Window and Door, you will deter drafts, evenly distribute room temperatures, inhibit mold and mildew, eliminate excess humidity, and prevent pests from entering your home.

Versi-Tite is a UL Classified – File #R27463 Caulking and Sealant. The foam is considered flame retardant, with an ASTM E-84 Flame Spread Rating of 15 and a Smoke Developed of 20. Versi-Tite has an R-value of 4-5 at one inch. It can be trimmed in as little as one hour and is fully cured in 24 hours.

Versi-Tite\* Window and Door is available in consumer sizes of 12 oz. and 24 oz. cans that come complete with straw applicator. The 24 oz. size is also available for use with a dispensing gun. A 16 lb. industrial size cylinder is also available for large-scale applications.

Optional accessories include a metal dispensing gun and Versi-Solv\* gun cleaning solvent.



| YIELD:    | 12 oz.          | 24 oz.          | 16 lb.           |  |  |
|-----------|-----------------|-----------------|------------------|--|--|
| 1/4" bead | 2,073 linear ft | 4,146 linear ft | 31,347 linear ft |  |  |
| 3/8" bead | 921 linear ft   | 1,842 linear ft | 13,914 linear ft |  |  |
| 1/2" bead | 518 linear ft   | 1,036 linear ft | 7,827 linear ft  |  |  |



Seal window and door sills, frames, jambs, headers.



Seal radon gas entry routes.



Close leaky gaps in attics and roofs.



Positive air sealing in asbestos removal areas.



Seal air conditioning penetrations.



Seal utility penetrations.



Stop air infiltration through windows, electrical outlets.



Prevent dust and moisture entry through plate lines.