Congratulations on selecting Foam It Green Polyurethane Spray Foam Kits for your project. Below, you will find simple steps on how to use your system. These instructions are vital to get the most value from your purchase.

Please email us or call us with any questions at:

Guardian Energy Technologies, Inc.
2033 N. Milwaukee, #136
Riverwoods, IL 60015
Tel: 800-516-0949
24/7 Customer Support Line: (800)
Email: Sales@GuardianEnergyTech.com

Things to Remember:

Pay Close Attention to your Spray Foam Project. Do not Rush!

The user is responsible for verifying the foam is light green in color and tacky in 30 seconds and dry to the touch in 2 minutes. If not, the user should **STOP IMMEDIATELY.** Read the Troubleshooting Pages or call (800)

The user should not continue the project without fixing the problem. Guardian Energy Technologies, Inc. is NOT liable for wasted chemicals.

99.9% of customer issues are caused by clogging the A Line in the gun / hose assembly. This is very simply avoided by:

- Immediately changing the nozzle if they start to clog from continuous spraying.
- Removing the mixing nozzle immediately if you're stopping for more than 30 seconds.

If you need additional nozzles, they can be purchased at SprayFoamDirect.com.

The user is responsible for changing nozzles on the gun as needed. If the user clogs the gun, a new gun will need to be purchased. Guardian Energy Technologies, Inc. is NOT liable for clogged guns.

The Standard Class 1 Formula is NOT the product to use for filling existing (wall) cavities. Do not place the nozzle directly into holes because it will cause the gun to clog.

Storage temperature – Kits can be stored at temperatures between 40°F and 100°F (5°C – 38°C). Never store in temperatures above 100°F (38°C). Do not freeze.

Always store & use upright.

1. Setting Up Your System

IN ALL CASES, KITS SHOULD BE OPERATED IN THE UPRIGHT POSITION (WITH TANK VALVES ON TOP). FAILURE TO DO SO WILL RESULT IN A LOSS OF PRESSURE.

OPERATOR SHOULD ALWAYS WEAR SAFETY GOGGLES AND NITRILE GLOVES. USE A RESPIRATOR FOR PROTECTION AND ADEQUATE VENTILATION.

IMPORTANT – FOLLOW INSTRUCTIONS
Foam it Green kits systems are factory tested to meet rigid performance standards. Proper function of the product is totally dependent upon strict adherence to the operating instructions included in this manual.

System 202

COMPONENTS
The Foam it Green System 202 includes two chemical components.
- "A" Component is in the green tank.
- "B" Component is in the white tank.
- A gun and two 7-1/2 foot hoses are attached to the tanks.
- There is a packet including 10 mixing nozzles, 3 fan tips, petroleum jelly and a pair of nitrile gloves.

TO PREPARE FOR OPERATION:
- Unwrap the gun and hose assembly.
- Remove the nozzle packet.

System 602

COMPONENTS
The Foam it Green System 602 comes in two cartons. One carton contains:
- The "A" Component (blue tank)
- A gun attached to two 15-foot hoses'
- A packet including 10 mixing nozzles and 3 fan tips.
- A wrench, petroleum jelly, and a pair of nitrile gloves.
- The other carton contains the "B" Component (white tank).

TO PREPARE FOR OPERATION:
- Attach the hose labeled "A" to the "A" Component tank.
- Turn the swivel nut down by hand and tighten with the wrench.
- Attach the other hose to the "B" Component tank.
- Turn the swivel nut down by hand and tighten with the wrench.

2 OPERATING ALL SYSTEMS

1. Look at the liquid crystal temperature strip (on top of the white tank).

- If the blue square is indicated – the chemical is too cold.
  Place the kit in a warm environment for 24 hours.
- If the red square is indicated – the chemical is too warm.
  Place the kit in a cooler environment for 24 hours.
- If the green square is indicated - the kit is at the proper temperature and ready to use.

2. Use a small amount of petroleum jelly to lubricate the "O-ring" that surrounds the face of the gun.

- Install a mixing nozzle by lining up the locking arms with the slots in the gun body. Push in firmly until you hear a "click." The nozzle is firmly secured.
- To remove the nozzle, squeeze locking arms and pull nozzle off.

3. Open valves slightly, making sure there are no leaks.

- If a leak is detected, tighten the nut. If there are no leaks, open the valves completely.

4. Check operation of the kit by aiming the gun with mixing nozzle attached into a waste container.

- Disengage the safety.
- Dispense foam at full pressure to make sure the foam is ***light green in color and dry to the touch in 2 minutes***.

3 Getting the most from your foam

THE IMPORTANCE OF TEMPERATURE
Temperature is important in producing good quality foam, cure time, density and physical properties.

Chemical temperature
For best performance, the temperature of the chemicals in the tanks must be between 65°F and 80°F (18°C – 27°C).

Use the liquid crystal temperature strip to ensure the chemicals are at the proper temperature.

Cooler or warmer ambient temperatures will affect the chemical temperatures as the kit is being used. Periodically check the liquid crystal temperature strip to ensure the chemicals are at the proper temperature.

Surface Temperature
Surface temperature will affect the expansion, cure time and possibly the adhesion of the foam. Ideally, the best results are obtained when the surface temperature is between 60°F and 80°F (16°C-27°C) Cooler temperatures will result in less expansion and slower cure times.

Temperatures below 50°F may result in adhesion problems due to condensation. It is recommended that the surface temperature be raised artificially, or delay the project until time of day when the sun or interior temperatures warm the surface.

Higher temperatures will result in faster cure times, less expansion and in some instances, adhesion problems.

FOAM SET UP TIMES
Foam it Green sets up (tack free or dry to the touch) in less than one minute in temperatures between 70° F and 80°F (21°C – 27°C). Higher temperatures will result in faster setup times. The foam's color should be light green.

SPRAY TECHNIQUE
For spray applications, it is recommended that the gun be held 18 to 24 inches away from the surface to be foamed. If you wish to move closer to avoid splatter, adjust the pressure applied to the trigger.

Even coverage is best obtained by moving the gun steadily back and forth and applying a constant trigger pressure.

The mixing nozzle is where the two chemicals are actually blended and become foam. If dispensing is interrupted for 30 seconds or more, the nozzle must be removed and changed prior to the next shot.

Foam it Green will expand six (6) times its original liquid volume during the cure process. The operator must take this into consideration when applying in a spray pattern or when filling a cavity.

For the best spray pattern, stand 18 to 24 inches away from your target.

Spray a 1 inch bead around the perimeter of the area you wish to cover.

With a back-and-forth motion, fill in the area from top to bottom.

The faster you move, the thinner the layer of foam.

The more slowly you move, the thicker the layer of foam.

The foam will expand five or six times its original volume. Be careful not to apply too much in one pass.

The foam will be light green and tack free to the touch in 30 to 45 seconds.

Once the foam is cured, and you see that you need heavier coverage, you can apply another layer of foam on top of the previous layer.

If your application requires a thickness in excess of 1 inch, we recommend you apply it in multiple passes. Applying too much foam in one pass will result in a very uneven surface. The foam will sag and may even drop off before it cures.

You will control the velocity of the flow of chemical by how hard you pull the trigger. Pull the trigger back at least 25% for a good surface texture. Be careful not to pull the trigger 100% right away, especially when the kit is new. The pressure in the tanks decreases as they empty. As you are dispensing, adjust the trigger pull to a position that gives you a desired spray pattern.

Filling a Large Void:

We strongly recommend that you do not dispense more than four inches of foam in one application. Allow each layer to cure, and add foam to the top of it. One layer of foam will bond completely to the next.

Polyurethane foam generates heat as it cures. If too much foam is dispensed into a large cavity, the foam around the outside of the cavity will insulate the heat generated from the core of the cavity, and combustion could occur.

Filling a Large Gap:

To caulk large gaps, simply run a bead of foam into the cavity.

Place the tip of the mixing nozzle at the edge of the cavity and slowly pull the trigger. Remember that the foam will expand five or six times its original volume. If the foam cures, and you have not filled the cavity to your satisfaction, you can always add more foam. One layer will bond to the other. If you dispense too much foam, you can trim away the excess with a sharp serrated knife.

4 STORAGE AND REUSE

Unopened systems are guaranteed up to the expiration date stamped on the carton (13 months from the date of manufacture). Once the kit is opened, it is warranted for 30 days.

> Use the kit a minimum of once per week to keep fresh chemicals in the lines. Otherwise you may need to purchase a new gun and hose assembly.

Store the kits in an environment of 40°F to 100°F (5°C-38°C) whether they are opened or unopened.

At no time should the kits be stored in temperatures above 100°F (38°C). Nor should they be stored in direct sun, or near hot water pipes, furnaces, chimneys or heat ducts.

If they have been stored in cool temperatures, it is important that they are relocated to a warmer place until the chemicals reach a temperature between 65°F and 80°F (18°C-27°C). The temperature sensing strip located on the "B" Component tank will indicate when the chemical temperature is at the correct level to dispense good quality foam (See "Operating All Systems", above).

STORAGE
Storage temperature – Kits can be stored at temperatures between 40°F and 100°F (5°C – 38°C). Never store in temperatures above 100°F (38°C). Do not freeze.

1. Make sure to immediately remove the used mixing nozzle and discard it. Coat the face of the gun with a GENEROUS amount of petroleum jelly. Also, add a dab of petroleum jelly at the base of the trigger to prevent crystallized chemicals from jamming the trigger.

2. Apply petroleum jelly to the valve stems of the tanks and close the valves.

3. Keep the cartons in their upright position.

4. If the kit is used infrequently, use the kit briefly once a week. This ensures that fresh chemical is in the lines.

> Open the tank valves, aim the gun – with a mixing nozzle attached– into a waste container and spray for 10-20 seconds. Make sure the foam is green and cures. Discard the mixing nozzle, and reapply a GENEROUS amount of petroleum to the face of the gun. Close the tank valves. The kit can be stored for another week.

REUSE
1. Open the valves, making sure fittings are still secure and there are no leaks.

2. Aim the gun – with a mixing nozzle attached– into a waste container, spray for 10-20 seconds and make sure the foam is green and cures.

3. Dispense foam.

5 WARNINGS

Individuals with chronic respiratory diseases, asthma, or bronchial disorders should not work with these materials, nor should those with allergic diseases.

The user is responsible for verifying that this material meets local building codes and/or any restrictions. It is also the user's responsibility to determine the fitness of this product for any intended application.

The user is responsible for verifying the foam is light green in color and tacky in 30 seconds and dry to the touch in 2 minutes. If not, the user should STOP IMMEDIATELY. The user should not continue the project without fixing the problem. Guardian Energy Technologies, Inc. is NOT liable for wasted chemicals.

The user is responsible for changing nozzles on the gun as needed. If the user clogs the gun, they'll need to purchase a new gun. Guardian Energy Technologies, Inc. is NOT liable for clogged guns.

When this product is to be used in interior construction or in any confined area, it should be covered with another material to provide a fire rating of at least 15 minutes. A covering of a minimum of ½ inch cement, plaster or fire-rated gypsum wallboard or an equivalent fire barrier is advised. Do not use this urethane foam where it will come in contact with steam pipes, heat vents, or areas where surface temperature might exceed 250° F (121° C). No flame cutting or hot work should be conducted nearby.

Where urethane foam is continually exposed to sun or water, it is recommended that a protective coating be applied over the foam to retard possible deterioration.

Guardian Energy Technologies, Inc. warrants that the goods sold hereunder conform to its standard applications. NO REPRESENTATION OR WARRANTY OF ANY OTHER KIND, EXPRESS OR IMPLIED, IS MADE WITH RESPECT TO THE GOODS, WHETHER AS TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER MATTER.

NOTICE OF CLAIMS: Immediately upon receipt of this product, user should inspect it for any parts shortages or defects. Any claim for shortage of system components must be made with Guardian Energy Technologies, Inc. within 10 days after receipt of goods. All other claims, including claims for alleged defective goods, must be made to the distributor within 15 days after user learns of the facts upon which such claim is based, but in no event after the expiration date stamped on the carton. Otherwise, any claim is waived.

LIMITATION OF LIABILITY: GUARDIAN ENERGY TECHNOLOGIES, INC. NEITHER ASSUMES, NOR AUTHORIZES THE DISTRIBUTOR OR ANY OTHER PERSON TO ASSUME FOR IT, ANY OTHER LIABILITY IN CONNECTION WITH THIS PRODUCT. ANY LIABILITY FOR LOSS OR DAMAGE RESULTING FROM ANY CAUSE WHATSOEVER, INCLUDING NEGLIGENCE, ALLEGED DAMAGE OR DEFECTIVE GOODS, IRRESPECTIVE OF WHETHER SUCH DEFECTS ARE DISCOVERABLE OR LATENT, SHALL IN NO EVENT EXCEED THE PURCHASE PRICE OF THE PARTICULAR GOODS WITH RESPECT TO WHICH LOSSES OR DAMAGES ARE CLAIMED, OR, AT THE ELECTION OF THE DISTRIBUTOR, REPAIR OR REPLACEMENT OF DEFECTIVE OR DAMAGED GOODS. IN NO EVENT, INCLUDING IN THE CASE OF A CLAIM OF NEGLIGENCE, SHALL GUARDIAN ENERGY TECHNOLOGIES, INC. OR ANY DISTRIBUTOR OF THIS PRODUCT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

DISTRIBUTED BY

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SAFETY PRECAUTIONS
Please refer to the Material Safety Data Sheet accompanying this shipment for safe use and handling of the individual components.

1. OPERATOR SHOULD ALWAYS WEAR SAFETY GOGGLES AND NITRILE GLOVES. In case of skin contact, flush with water. For eyes, flush with water for 15 minutes and get immediate medical attention.

2. Use only with adequate ventilation and respiratory protection.

3. Smoking must not be allowed during application. Open flame and/or the use of welding or electrical equipment in the vicinity of the application should be prohibited.

4. Do not store in temperatures above 100°F (38°C). Do not store in direct sun, near hot water pipes, furnaces, chimneys or heat ducts.

5. Keep out of the reach of children. Do not apply to things children would touch.

CHEMICAL SPILLS

"A" COMPONENT (Isocyanate):

- Provide adequate ventilation.
- Wear suitable personal protective clothing and equipment.
- Contain spill and collect using suitable absorbent material, such as sawdust. Shovel into waste container adding 10% to 20% decontaminate solution (90% water, 7% ammonia and 3% liquid detergent). Leave uncovered for 24 hours prior to disposal.
- Dispose of as ordinary industrial waste in compliance with pertinent regulations.

"B" COMPONENT (Polyols):

- Provide adequate ventilation.
- Wear suitable personal protective clothing and equipment.
- Contain spill and collect using a suitable absorbent material such as sawdust or oil dry.
- Dispose of as ordinary industrial waste in compliance with pertinent regulations. Wash areas containing residue with warm water and soap.

TANK DISPOSAL

DO NOT PUNCTURE OR INCINERATE TANKS. When the tanks are empty, they must be vented prior to disposal.

- To vent, turn the tanks upside down (valves down). Open the valves slowly and let the pressure escape.
- Leave tanks to vent for minimum of 24 hours. Puncture pressure relief disk on top of tank to prevent reuse.
- Drain any remaining chemicals into a waste container. Mix together to create a solid, then disposed of as ordinary waste.
    - If only one chemical remains, it must be absorbed ("A" component must also be neutralized) and then disposed of.

Chemical tanks are disposed of as ordinary industrial waste (sanitary land fill recommended) in compliance with pertinent regulations.

FOR CHEMICAL/MEDICAL **EMERGENCIES**, PHONE CHEM TREC
1-800-424-9300 or 703-527-3887 (collect)