

OPERATING INSTRUCTIONS

Applicable for all Foam It Green low-pressure disposable systems

Foam It Green PO Box 510803 New Berlin, WI 53151

Please read and follow all instructions

Foam It Green systems are factory tested to meet rigid performance standards. Proper function of the product is dependent upon strict adherence to the operating instructions.

In all cases, kits should be operated in the upright position (with tank valves on top) and remain in the original cartons during operation. Failure to do so will result in loss of pressure and will void any warranty.

Operator should always wear proper personal protective equipment including safety goggles, protective clothing, gloves and recommended respiratory equipment.

Things to remember

The foam should always be light green in color. Make sure you're in good lighting when confirming the color of the foam.

Always begin with spraying a test shot to ensure that the foam is dispensing properly. If the foam is not light green or curing properly, stop your application immediately and refer to the Troubleshooting Section. If you continue you will waste the kit.

Yield will vary based on how the kit is used. Allow for variations, there are many factors that affect foam yield.

Make sure to change the mixing nozzles when you stop spraying for more than 30 seconds.

Cover any areas that you do not want foam on.

Recommended storage temperature is between 60°F and 90°F ($16^{\circ}C - 32^{\circ}C$). NEVER store in temperatures below 30°F ($-1^{\circ}C$) or above 120°F ($48^{\circ}C$).

Always store and use the kits upright keeping the tanks in their boxes. Keep the kits dry.

Always shake each box vigorously before each use.

When you're done, you may have some chemical left in one or both tanks. Having some leftover does not affect the performance or yield of the foam.

SETTING UP YOUR SYSTEM

In all cases, kits should be operated in the upright position (tank valves on top) and remain in the original cartons during operation. Failure to do so will result in a loss of pressure and void any warranty.

Operator should always wear proper personal protective equipment including safety goggles, protective clothing, gloves and recommended respiratory equipment.

Foam It 202 and 402

COMPONENTS:

- Two chemical components "A" green tank & "B" white tank
- A dispensing gun attached to two 10-foot hoses
- An accessory packet including 10 mixing nozzles, 3 fan tips, wrench, packet of petroleum jelly, and a pair of chemical resistant gloves.

TO PREPARE FOR OPERATION:

- Remove the gun/hose assembly and nozzle packet.
- Attach hose labeled "A" to the green tank. Hand tighten and secure with the wrench provided. Do not overtighten.
- Attach the other hose to the "B" tank in the same manner.
- Shake carton for 30-60 seconds.

Foam It 602 and 1202

Comes in two separate cartons. COMPONENTS:

- Two chemical components one in each carton. "A" blue tank & "B" white tank
- A dispensing gun attached to two 15-foot hoses
- An accessory packet including 10 mixing nozzles, 3 fan tips, wrench, packet of petroleum jelly, and a pair of chemical resistant gloves.

TO PREPARE FOR OPERATION:

- Remove the gun/hose assembly and nozzle packet.
- Attach hose labeled "A" to the blue tank. Hand tighten and secure with the wrench provided. Do not overtighten.
- Attach the other hose to the "B" tank in the same manner.
- Shake each carton for 30-60 seconds.

OPERATING ALL SYSTEMS

- 1. Check the temperature strip on the top of the "B" component tank to confirm the green section is highlighted (in red).
 - a. If the blue section is highlighted, the chemical is too cold. Warm the kit prior to use.
 - b. If the red section is highlighted, the chemical is too warm. Cool the kit prior to use.
- 2. Make sure the surface being applied to is clean, dry, and between 65°F 90° F (18°C 32°C). Cover anything you do not want to get foam on.
- 3. Leave tanks upright and in their boxes.
- 4. Shake each tank/box vigorously for 30-60 seconds.
- 5. Using a small amount of petroleum jelly, 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 firmly until you hear a "click" and the nozzle is firmly secured.
- 6. Perform a test shot aim the gun with a mixing nozzle attached into a waste container. Disengage the safety and dispense foam at full pressure.
 - a. Foam should be light green and dry to touch in 2 minutes.
 - b. Perform another test shot onto the application surface. Make sure the foam is bonding to the surface. If the foam is pulling away or crackling, the surface is not at ideal spraying temperatures.
- 7. When you stop spraying for more than 30 seconds, change the nozzle before continuing. To remove the nozzle, squeeze locking arms and pull the nozzle out.

SPRAY TECHNIQUE

You control the chemical flow by how hard you pull back on the trigger. To begin, pull the trigger all the way back, and then ease it forward until you find the position that gives you the best results.

For spray application, hold the gun 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.

To achieve a wider spray pattern, attach a fan tip to the end of the nozzle by screwing on the small green piece to the threaded end of the mixing nozzle. Fan tips are not recommended when spraying overhead.

The foam will expand approximately 2-3 times its sprayed volume during the cure process. This is important to remember when applying a spray pattern or filling a cavity.

There are many factors that affect foam yield. Allow for variations in material requirements.

Chemical temperature and surface temperature cause variations. Other factors are surface irregularities, thickness applied, and free-rise or enclosed cavities. It is recommend to estimate 10-25% more foam will be required than exact measurements indicate.

Spray a one inch bead around the perimeter to be sprayed. Then 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 slower you move, the thicker the layer of foam.

If you're applying more than 1 inch of foam, apply it in multiple passes. Do not apply more than a 2 inch thickness at a time. Applying too much at once can result in sagging and dropping off before curing.

Once the foam is cured, you may apply additional layers. The foam will bond to itself. Wait at least 10 minutes between each layer.

When you have finished, let the foam sit for 24 hours.

If the foam will be exposed to UV rays (sunlight), cover it with an elastomeric rubber roof coating or an exterior grade paint within 24 hours.

Open cell kits (Foam It 1202) will expand more than the standard foam. It also takes longer to rise and cure, about 2 minutes. For best results, never apply open cell foam in less than 2" applications. Open cell foam will still be light green, but less firm to the touch than the closed cell foam.

SHUTDOWN, STORAGE, & REUSE

It is recommended that the kit be used within 30 days upon being opened. It is required that the kit is used a minimum of once per week to keep fresh chemicals in the lines and not clog the gun. Otherwise you will need to purchase a new gun/hose assembly. Do not drain the hose lines when shutting the kits down for reuse.

Shutdown

- 1. Make sure to remove the used mixing nozzle and discard it. Coat the face of the gun with a GENEROUS amount of petroleum jelly. Add a dab of the petroleum jelly to the base of the trigger as well to prevent chemicals from crystallizing at the trigger.
- 2. Apply petroleum jelly to the valve stems of the tanks and close the valves.
- 3. Keep the cartons in the upright position. Leave the hose assembly attached to the tanks and do not drain the hose lines. Do not wrap the hoses around the tanks.

Storage

- 1. Store the kits in an environment of 40°F to 120°F (5°C 48°C) whether opened or unopened. Keep kits stored upright and dry in their cartons. Do not store in direct sun or near hot water pipes, furnaces, chimneys or heat ducts.
- 2. Use the kit briefly at least once a week. This keeps the chemicals fresh in the lines and keeps the gun from clogging.
 - a. Simply aim the gun, without a nozzle, into a waste container. Open the tank valves, and spray for several seconds. Make sure the chemical streams are of equal velocity. Agitate the two chemicals in the waste container to ensure they form a solid waste.
 - b. Reapply a GENEROUS amount of petroleum jelly to the face of the gun. The kit may then be stored for another week.

Reuse

- If the kit has been stored in cool temperatures, it is important that it is moved to a warmer space until the chemicals reach a temperature between 65°F and 90°F (18°C -32°C).
- 2. Shake each tank for 30-60 seconds before use.
- 3. Open the valves, making sure fittings are still secure and there are no leaks.
- 4. Aim the gun, with a nozzle, into a waste container and make sure the foam is light green and cures.
- 5. Perform a test shot onto your spraying surface. If the foam cures and adheres, you're ready to spray.

Unopened systems are warranted up to the expiration date stamped on the carton (13 months from the date of manufacture). Once the kit is opened, it is warranted against manufacturer's mechanical defects, which present themselves immediately.

TROUBLESHOOTING

The foam you produce needs both chemicals to mix in a one-to-one ratio. If the foam is not light green and tacky to the touch in 30 seconds, perform the following steps:

Remove the mixing nozzle from the gun. Point the gun into a waste container and pull the trigger to observe the chemical flow. You should see two chemical streams crossing over each other and flowing of equal velocity.

The "A" chemical is a yellowish color and the "B" chemical is blue in color.

If there's more "A" (yellow) chemical flowing than "B" (blue) chemical, the foam will be lighter in color or yellow and crunchy to touch.

First check the temperature strip. If the indicator is in the blue section, then the chemicals are too cold. Place the tanks in a heated area or in a warm water bath until the indicator is back in the green section. Shake tanks vigorously and check the chemical flow again.

If the temperature strip indicates the mid-green section, then check the "B" tank. Make sure it is not empty and that the tank valve is all the way open.

If there's more "B" (blue) chemical flowing than "A" (yellow) chemical, the foam will be blue in color and probably spongy to the touch.

First check the temperature strip. If the indicator is in the red section, then the chemicals are too warm. Place the tanks in an air conditioned environment or in a cold water bath until the indicator is back in the green section. Shake tanks vigorously and check the chemical flow again.

If the temperature strip is indicates the mid-green section, then check the "A" tank. Make sure it is not empty and that the tank valve is all the way open.

If there is some "A" (yellow) chemical flowing, you can try this process to unclog the gun.

- 1. Turn off the "B" (blue) tank. Keep the "A" (yellow) tank on. Shake the "A" tank vigorously for two minutes.
- 2. Without a nozzle, spray into a waste container pulling back the trigger all the way back for 60 seconds to see if the force of the yellow chemical increases. It's important to keep it going for 60 seconds to see if the clog will dislodge.

If the foam is liquefied, melted, or foamed up, this indicates that there is no "A" chemical mixing at all. The foam will be blue and liquid-y.

If there is no chemical flow from the gun, the gun/hose assembly needs to be changed.

If neither chemical is flowing through the hoses to reach the gun, there is not enough pressure in the tanks to push out the chemicals. This happens when the kits are empty or if they have been operated on their sides. There is no way to fix this once the pressure is gone. A **clogged gun** is not a manufacturer's defect. Try these steps before purchasing a replacement: Increasing the "A" flow:

- 1. Shut off the "B" tank. Make sure the "A" tank valve is all the way open.
- 2. Shake the "A" tank for at least 60 seconds.
- 3. Without a nozzle, aim into a waste container, and pull the trigger all the way back for 60 seconds. It's important to keep it going for 60 seconds to see if the clog will dislodge.
- 4. If the "A" chemical starts to spray with a good force, turn the "B" tank back on. Spray a test shot to make sure it is making good foam.

If after completing these steps the "A" chemical is still not flowing with force, you will need to purchase a new gun/hose assembly.

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.

When this product is to be used in interior construction or in any confined living 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, such as an elastomeric rubber roof coat paint.

SAFETY PRECAUTIONS

Personal Protective Equipment for Low-Pressure Foam Systems

Foam It Green two-component spray foam systems are professional systems that should be used under proper health and safety conditions. All Foam it Green systems are low-pressure products, with a dispensed pressure of below 250/psi.

The recommended Personal Protective Equipment (PPE) for Foam it Green systems are as follows:

- Chemical resistant safety goggles
- Chemical resistant protective clothing to ensure there is no exposed skin
- Nitrile gloves (provided in all medium and large size Foam it Green systems)
- A NIOSH (National Institute of Safety and Health) approved respirator
 - There are many respirator options and the correct respirator may be determined based on the project conditions (e.g. ventilation) and/or the applicator preference. Several options include:
 - Half-mask respirators with organic vapor cartridges and particulate filters (P100). Half-mask respirators require a fit test and cartridges/filters should be changed in accordance to a regular schedule.
 - Full-mask respirators with organic vapor cartridges and particulate filters. The face-shield protects face and eyes from irritants and contaminants. Full-mask respirators require a fit test and cartridges/filters should be changed in accordance to a regular schedule.
 - Powered Air Purifying Respirator (PAPR) with an organic vapor cartridge. This type of respirator offers breathing comfort from a battery-powered fan which pulls air though filters and circulates air throughout helmet/hood.
 - For more respirator information, please visit <u>www.osha.gov</u> (29 CFR 1910.134 Personal Protective Equipment)

Please refer to the Safety Data Sheet included in this shipment for safe use and handling of the individual liquid components.

- Operator should always wear safety goggles, protective clothing and chemical resistant gloves. In case on skin contact, wash with plenty of soap and water. For eyes, flush with water for at least 15 minutes and seek medical attention. If ingested, drink lots of water. Do not induce vomiting. Contact physician immediately.
- 2. Use only with adequate ventilation and with respiratory protection. If inhaled, move to fresh air, give oxygen if necessary. Contact physician immediately.

- 3. No smoking during or around application. Open flames and use of welding or electrical equipment should be prohibited.
- 4. Do not store product in temperatures above 120°F (49°C). Do not store in direct sun or near hot water pipes, furnaces, chimneys, or heat ducts.
- 5. Keep out of the reach of children.

DISPOSAL & CHEMICAL SPILLS

When finished, you may have one or both chemicals left over. Having some leftover does not affect the yield or the quality of the foam. Here's how to dispose of any remaining chemicals.

Foam It Green is best disposed of as solid material as opposed to the liquid chemicals. To that end, we recommend the following:

EMPTY REMAINING CHEMICALS, if any, into a waste container. Make sure that the waste container contains both "A" and "B" chemicals. They do not have to be on ratio, but they both must be present. Mix the waste chemical blend with a stick so that it becomes a solid substance. This substance can then be disposed of as solid industrial waste.

IF YOU ONLY HAVE ONE OF THE CHEMICALS LEFT, THE CHEMICALS MUST BE ABSORBED AND POSSIBLY NEUTRALIZED BEFORE DISPOSAL.

If you only have "A" chemical remaining, or for "A" spills, follow this procedure:

Always wear respiratory protection. Remove to an outdoor or extremely well ventilated area. Absorb chemical with a dry absorbent material (for example sawdust or cat litter). Shovel into a waste container, adding 10% to 20% solution (90% water, 7% ammonia, 3% liquid detergent). Leave uncovered for 72 to 96 hours. Dispose of as solid industrial waste.

If you only have "B" chemical remaining, or for "B" spills, follow this procedure:

Always wear respiratory protection. Remove to an outdoor or extremely well ventilated area. Contain spill and collect using a dry absorbent material (for example sawdust or cat litter). Shovel into a waste container and dispose of as ordinary industrial waste.

TANK DISPOSAL

DO NOT INCINERATE TANKS.

VENT THE TANKS. First, drain any remaining chemical into a waste container. Turn the tanks upside down. Open tank valves slowly and let the pressure escape valves down. Leave in this position for 24 hours. Do this outside or in a well-ventilated area.

ENSURE TANKS ARE VENTED by tapping out the pressure relief valve to prevent reuse. This is the round metal disk found on the top part of the tank on the same end where the valve is, near the handle. Tap it out with a hammer or with a hammer and screwdriver. TANKS MUST BE VENTED BEFORE THIS IS DONE.

Dispose of vented, empty tanks as ordinary industrial waste. Check with your City Department of Public Works or local Steel Recycling Plant for more information.

For chemical/medical emergencies, phone ChemTel (#MIS2000665)

Within the U.S., Canada, P	uerto Rico, & US Virgin Islands: 1-800-255-3924
Australia:	1-300-954-583
Brazil:	0-800-591-6042
China:	400-120-0751
India:	000-800-100-4086
Mexico:	01-800-099-0731
All other Intl countries:	001-813-248-0585

WARRANTY/LEGAL

Foam It Green warrants that the goods sold hereunder confirm to its standard applications. Warranty claims must be confirmed by Foam It Green and the product may need to be returned for inspection. Completely used kits are not eligible for warranty. There must be enough product left to be able to inspect the system.

Notice of claims: Immediately upon receipt of this product, user should inspect for any part shortages or defects. Any claim for shortage of system components must be made within 15 days of receiving the product. In no event will claims for shortages or defects be accepted after the expiration date stamped on the carton, or if the carton is absent.

Limitation of Liability: Foam It Green neither assumes, nor authorizes any 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, repair or replacement of defective or damaged goods. In no event, including in the case of a claim of negligence, shall Foam It Green be liable for incidental of consequential damages.

What the warranty covers:

- Tank issues that prevent foam from ever being made.
- Broken plastic parts that prohibit making foam. If this happens during shipping, we will replace the part.
- Missing items as long as they are reported within 15 days of receiving the product.

What the warranty doesn't cover:

- Clogged gun/hoses this happens when the system isn't shutdown properly or when weekly maintenance is not performed.
- Yield this is determined by how you use the kit. Chemical temperature, surface temperatures, thickness applied, test shots, etc. all factor into the product yield.
- Broken parts resulting from dropping or crushing the dispensing gun.
- Loss of pressure in a used kit. Tanks cannot be operated on their side; the pressure will escape. Tanks must be left in their boxes and remain upright.
- Product misuse product that is damaged or altered through misuse, accident, modification or mishandling.