OPERATING INSTRUCTIONS

Two-Component Disposable Foam Systems

TIGER FOAM Insulation

6 Worthington Avenue • Spring Lake, New Jersey 07762

Sales and Technical Support:

Toll Free: 800.664.0063 • Fax: 877.415.1185 • International Phone: (001) 1+732.927.2090 • International Fax: (001) 1+732.927.2091

www.tigerfoam.com

Operating Instructions
Instructions For Use

Make sure the kits are warmed up to between 75-85°F prior to application.
When spraying the dispensing unit for the first time or when starting a new kit, it is recommended to **trigger the gun only 1/2 to 3/4 open, until the desired output and spray pattern is achieved.** This controllable metering ability is a major advantage of the dispensing unit, allowing the user complete control of the flow rate and spray pattern that best fits the application.

USE

1. Wear impervious gloves, protective eyewear and suitable work clothes during use. Use with adequate ventilation or certified respiratory equipment (Consult Material Safety Data Sheet).
   Tiger Foam Insulation is low-pressure spray foam using chemical temperatures dose to room temperature, which significantly reduces any overspray or airborne contaminant level. The installer should provide adequate ventilation to maintain exposure levels below ACGIH, OSHA, or other applicable limits. In poorly ventilated areas or temperatures above 85°F, additional proper respiratory protection may be required. Use an approved air purifying respirator equipped with an organic vapor cartridge and a particle filter, or a supplied air respirator. Cover and protect all surrounding surfaces.
2. For best results, use when material is between 75-85°F (24-29°C). Clean grease, oil, dirt and water off surfaces to be foamed. Shake kit before use. In winter months the its should be warmed for 1-2 days prior to the application.
3. Open both tank A & B valves.
4. Attach nozzle to the dispensing unit. Use of enclosed petroleum Jelly on the face of the dispensing unit before attaching nozzle will help prevent contamination by cured foam or chemical and help keep the seating ports clean. (Detailed instructions for attaching nozzle shown on separate page of this document)
5. When spraying the dispensing unit for the first time and with each new kit, dispense foam by squeezing the trigger only 1/2 to 3/4 open until desired output and spray pattern is achieved. This controllable metering is a major advantage of the dispensing unit, allowing the user complete control of the flow rate and spray pattern that best suits the application.
6. **Once the trigger is squeezed it must be reactivated within 30 seconds or a new nozzle must be installed. The tips also need to be changed every 8 minutes of continuous spray time. Failure to do this could results in chemical leakage, which can ruin the dispensing unit and/or hoses. Also, cause off ratio a and b**
7. IMPORTANT: After releasing trigger, activate the trigger safety to prevent accidental discharge.
8. All clear dispensing unit nozzles are easily cleanable and solvent resistant. To clean nozzles, liquid chemical must be dissolved prior to its complete chemical reaction by flushing the nozzle with a suitable solvent such as acetone. Gun face can be kept clean with the use of petroleum Jetty on the face or with a soft cloth to remove residue.
9. Do not remove hoses from tanks. Do not flush/clean hoses with air, water or solvent. Removing and/or cleaning hoses may compromise the foam.

STORAGE AND RE-USE

1. Close tank valves.
2. Do not store at temperatures above 120°F (49^{0}C) or below 50°F (10°C). Kits stored below 75°F must be given sufficient time (1-2 days) for the chemical to warm up to 75-85°F (24-29°C).
3. The used nozzle should be left on the dispensing unit during storage In order to help keep the outlet ports of the dispensing unit clean and free from any dust, dirt or chemical that can affect the proper sealing of the nozzle. **SAFETY:** Always engage the trigger safety and close all supply valves during storage.

4. All clear dispensing unit nozzles are easily cleanable and solvent resistant. To clean nozzles, liquid chemical must be dissolved prior to its complete chemical reaction by flushing the nozzle with a suitable solvent such as acetone. Gun face can be kept clean with the use of petroleum jelly on the face or with a soft cloth to remove residue. **Cleaning a nozzle more than twice is not recommended, unless the static mixing element is removed and replaced, in order to prevent residue build-up on this mixing element.**
5. **Do not remove hoses from tanks. Do not flush/clean hoses with air, water or solvent. Removing and/or cleaning hoses may compromise the foam.**

The dispensing unit is a disposable unit not designed for prolonged storage or continuous re-use. To help extend the storage life, it is recommended to dispense a minimal amount of foam from unit at least once every seven days to ensure optimum flow of chemical through hoses. Use of contents within 30 days of initial use is recommended. Make certain valves are in upright position when opening them and operating the unit.

RE-USE OF DISPENSING UNIT AFTER STORAGE

1. Before disengaging the trigger safety remove the used nozzle.
2. Check the face of the dispensing unit to make sure the outlet ports are clear and the face of the unit is free from dirt, chemical or other debris. If necessary, use a soft cloth or rag to remove any cured foam or chemical from the face of the dispensing unit. Use of enclosed petroleum jelly is recommended to cover the face of the unit in order to prevent further contamination or if chemical is accidentally leaked into this area.

All clear dispensing unit nozzles are easily cleanable and solvent resistant. To clean nozzles, liquid chemical must be dissolved prior to its complete chemical reaction by flushing the nozzle with a suitable solvent such as acetone. Gun face can be kept clean with the use of petroleum jelly on the face or with a soft cloth to remove residue. **Cleaning a nozzle more than twice is not recommended, unless the static mixing element is removed and replaced in order to prevent residue build-up on this mixing element.**

DISPOSAL PROCEDURES

1. DO NOT INCINERATE TANKS.
2. After tanks are empty, they must be vented. **CAUTION:** Tanks will still be under pressure. Protective eyewear and impervious gloves MUST be worn during the procedure. With tank inverted, slowly open tank valve, point tank AWAY from face and allow pressure to completely vent. **CAUTION:** Empty tank could contain potential vapor toxicity hazard. Provide adequate ventilation or respiratory protection (consult MSDS).
3. DISPOSE OF EMPTY CYLINDERS ACCORDING TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

Always read all operating, application and safety instructions before using any products. Use in conformance with all local, state and federal regulations and safety requirements. Failure to strictly adhere to any recommended procedures and reasonable safety precautions shall release the manufacturer of all liability with respect to the materials or the use thereof. For additional information contact your Sales Rep.

NOTE: Physical properties shown are typical and are to serve only as a guide for engineering design. Results are obtained from specimens under ideal conditions and may vary upon use, temperature and ambient conditions. Right to change physical properties as a result of technical progress is reserved. This information supersedes all previously published data. Yields shown are optimum and will vary slightly depending on ambient conditions and particular application. Read all product directions and safety information before use. This product is organic, therefore combustible. Consult local building codes for specific requirements regarding the use of cellular plastics or urethane foam in construction.

Set-Up Procedures for Single-Package Two-Component Model

Initial Prep

The installer should provide adequate ventilation to maintain exposure levels below ACGIH, OSHA, or other applicable limits. In poorly ventilated areas or temperatures above 85°F additional proper respiratory protection may be required. Use an approved air purifying respirator equipped with an organic vapor cartridge and a particle filter, or a supplied air respirator.

85°F (29°C)
75°F (24°C)

Wear impervious gloves, protective eyewear and suitable work clothes during use.

Shake kit before use to insure proper mixing. Kit should be between 75-85°F (24-29°C).

Push in top of front panel to open. Pull down flap for dispensing unit hose assembly. Remove nozzle packet and read Instructions.

Extend attached dispensing unit hose assembly.

Open top flap of box to expose cylinder valves.

Open valves. Top flap may be removed or left in place during use or storage.

Before attaching nozzle, use petroleum jelly on face of gun. After attaching nozzle, spray into "test shot" receptacle. Unit is ready to use.

To Attach Nozzle

1. Insert bottom tab of nozzle into bottom slot of dispensing unit.
2. Attach top latch by pushing towards back of unit until an audible "snap" is heard.
3. With tanks upright, open tank valves completely. Tank valves must be upright during use.

Set-Up Procedures for Dual-Package Two-Component Model

1. Invert each cylinder several times before use to insure proper mixing.

2. Thread red coded hose to A-component tank and black coded hose to B-component tank and tighten with a wrench.
3. With tanks upright, open tank valves completely. Tank valves must be upright during use.

WARNINGS:
Follow safety precautions and wear protective equipment as recommended. Consult Material Safety Data Sheet (MSDS) for specific information. Use only with adequate ventilation or certified respiratory equipment. NIOSH approved positive pressure supplied air respirator or a negative pressure half mask with organic vapor cartridge and dust/mist prefilters are recommended if exposure guidelines may be exceeded. Contents are very sticky and may be irritating to skin and eyes: therefore, wear impervious gloves, protective eyewear and suitable work clothes during use. If liquid chemical comes in contact with skin, first wipe thoroughly with dry cloth, then rinse affected area with water. Wash with soap and water afterwards, and apply hand lotion if desired. If liquid comes in contact with eyes, immediately flush with large volume of clean water for at least 15 minutes and get medical help at once. If liquid chemical is swallowed, drink one to three glasses of water or milk and obtain immediate medical attention. KEEP OUT OF REACH OF CHILDREN.

IMPORTANT APPLICATION NOTES:

1. Product model numbers are designed to approximate the optimum yields obtainable from each product. For example, Model 600 refers to 600 board feet optimum foam yield. Actual yields will vary depending on factors such as ambient conditions, application technique, foam density, etc. See Technical Data Sheet for additional theoretical yield information in $ft.^3$ and $m.^3$.
2. Various U.S. and foreign patents cover the dispensing system.
3. Suitability of this product for any particular purpose, such as achieving desired structural properties, performance specifications or application requirements must be determined by the end user, prior to use. Verification that product is property applied and installed is also the responsibility of the end user.
4. If you have any questions about this product, please contact your Sales Rep.

Troubleshooting Two-Component Foam Sealant

- **Poor chemical flow**- *(Note: when injecting foam into an enclosed cavity, it is important to check frequently that chemical is flowing properly and to replace any nozzle that has become clogged.)* - This problem could be tank valves are not fully open or tanks opened in wrong position, allowing only propellant gas to escape.

Solution: Open tank valves completely by turning counter-clockwise (to tops of tanks). Tank valves must be in upright position during use.

- **Slow cure** - This problem could be that the unit is out of shelf life, chemical or substrate too cold or the kit is dispensing off ratio.

Solution: Unit is not usable

- **Dark crunchy foam** -This is a sign that the foam has become **A-rich.** The system is off-ratio causing more of the A-chemical to be sprayed than the B-chemical.
- **Foam shrinkage within 24 hours** - This is a sign that the foam was sprayed off-ratio and is **B-rich.**
- **White spongy foam** - This is a sign that the foam has become **B-rich.** The system is off-ratio causing more of the B-chemical to be sprayed than the A-chemical. Foam that visibly shrinks within 24 hours after application may be an indication of B-rich foam.

- **Sputtering from nozzle** - This is a sign of empty tanks, clogged nozzle, or a blockage in the system.
- **Lack of expansion in sprayed foam** - This problem could be associated with tank temperatures, clogged nozzles or spraying technique.

Solution:

- **STOP SPRAYING.**
- Remove nozzle and spray chemical into a plastic garbage bag. Check to see that both chemicals are being dispensed from the dispensing unit in approximately equal streams.
- Make sure all valves from the tank to the dispensing unit are open.
- For optimum results, the chemical temperature must be between 75-85°F (24-29°C). During colder months it may take up to a week or more to warm the chemicals to the optimum temperature, especially if the tanks have recently been transported or stored in an unheated environment.
- Replace nozzle. If the nozzle has become clogged, the foam may become off-ratio.
- Make sure tanks are not empty and all valves are open. Shake tanks back and forth to determine that they contain chemical.
- When spraying foam, allow a minimum of 1 minute before applying more foam over freshly sprayed foam. Spray in layers of 1-2" (2.5-5.1 cm.) thick with each application. Trying to apply more than 2" (5.1 cm) in a single spray will pack the foam and may result in lower expansion and chemical yields.

LIMITED WARRANTY:

The Manufacturer warrants only that the product shall meet its specifications: this warranty is in lieu of all other written or unwritten, expressed or implied warranties and The Manufacturer expressly disclaims any warranty of merchantability, or fitness for a particular purpose. The 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 replacement of the material. Failure to strictly adhere to any recommended procedures shall release the Manufacturer of all liability with respect to the materials of the use thereof. User of this product must determine suitability for any particular purpose, including, but not limited to, structural requirements, performance specifications and application requirements prior to installation and after product has been properly applied.

Two – Component Dispensing Unit

U.S. Patent #6,345,776
Other Patents Pending

Cone Tip Nozzle

- Conical spray pattern
- Directed, high-velocity flow
- Clear and solvent cleanable
- Easily adapted for pour-in-place applications

Fan Tip Nozzle

- Wide vertical spray pattern for large area coverage
- Improved uniformity and surface appearance

- Speeds application and productivity
- Clear and solvent cleanable

Pour-in-Place

- Use extension tubing* for liquid pour application
- For injection into molds and cavities
- Use with slow rise foam systems or pour-in-place

*Extension tubing not provided

Use Solvents!

All clear dispensing unit nozzles are easily cleanable and solvent resistant. To clean nozzles, liquid chemical must be dissolved prior to its complete chemical reaction by flushing the nozzle with a suitable solvent such as acetone. Gun face can be kept dean with the use of petroleum jelly on the face or with a soft cloth to remove residue. Cleaning a nozzle more than twice is not recommended, unless the static mixing element is removed and replaced, in order to prevent residue build-up on this mixing element.

Needle Valve Sealing Ports

- Keep needle valve sealing ports clean.
- Use of enclosed petroleum jelly is recommended to cover the face of the unit in order to prevent contamination by cured foam or chemical. It also aids in keeping the sealing ports clean.
- If necessary, use a soft cloth or rag to remove any cured foam from around the ends of the needle ports.