



FLUSHING PROCEDURE

Spray polyurethane foam (SPF), which is formed from the combination of A-side (isocyanate) and B-side (polyol blend) chemicals, is becoming increasingly popular for use as perimeter walls, crawl space, and/or attic insulation in commercial and residential buildings. Demilec has prepared this guide to support the safe use, handling and installation of our spray foam insulation products. However, while every attempt has been made to present in this document the proper and most accurate information available, it should be recognized that it has been prepared for general information and guidance only and thus does not imply or intend a guarantee or warranty.

Our SPF systems contain an A-side and a B-side. The A-side is commonly known as polymeric methylene dipheyl diisocyanate (PMDI), and is typically comprised of approximately 50% methylene dipheyl diisocyanate (MDI), and 50% high molecular weight oligomers of MDI. The B-side is typically a blend of polyols, catalysts, blowing agent, flame retardant, surfactant and water. The Safety Data Sheets (SDS) for the A and B-side chemicals should be consulted to determine the components present, their approximate percentages and the available information regarding health, safety and environmental protection.

Heatlok Soy[®], Demilec APX[™], Sealection[®] 500 and Agribalance[®] spray foam insulations are all two component polyurethane chemical systems which can be processed using a fixed ratio, positive displacement proportioning unit, such as the Graco[®] series or equivalent.

HANDLING MDI / PMDI

The handling of MDI / PMDI should be done in a well ventilated area.

All personal protective equipment (PPE) should be worn when working with MDI / PMDI including:

- NIOSH approved full-face or hood-type supplied air respirator (SAR) operated in positive pressure or continuous flow mode. Note: Respirators should be used in accordance with your company's written Respiratory Protection Program (RPP) which is required by the U.S. Occupational Safety & Health Administration (OSHA). Among other items, the RPP should include provisions for medical evaluations, fit testing, training and cartridge change-out schedules.
- Disposable coverall with attached hood. It is important that all exposed skin be covered. Where heat stress may be a concern, consider the use of lightweight disposable coveralls.
- Disposable over-boots with skid resistant soles. In circumstances where over-boots may create a slip/fall hazard, its use may be omitted.
- Fabric gloves fully coated with nitrile, neoprene, butyl or PVC. Alternatively, cotton gloves over nitrile gloves may be used.

FLUSHING PROCEDURE FOR THE SEALECTION & HEATLOK PRODUCT LINES

NOTE: THE FLUSHING PROCEDURE APPLIES TO THE RESIN SIDE ONLY. NEVER MIX WATER INTO THE ISOCYANATE DRUM OR CHEMICALS. FAILURE TO OBSERVE THIS SAFETY NOTICE COULD RESULT IN SEVERE INJURY.

Heatlok Soy, like all closed cell spray foam products, contains closed cell surfactants and blowing agents, etc. These chemicals will adversely affect the open cell spray foams such as Sealection 500 and Agribalance. Therefore it is important to flush all of the resin from the exterior of the transfer pump and internal wetted parts of the proportioning equipment. Since you will be re-circulating the Sealection product line it is very important to thoroughly purge the equipment when switching from Heatlok Soy. If any of the Heatlok Soy chemicals mix with the Sealection products inside the drum while re-circulating, the resin will get contaminated and will need to be disposed of.

- Insure that you are wearing the recommended Personal Protection Equipment (PPE), such as respirators, coveralls, gloves and eye protection.
- Remove spray gun from spray hose.
- Relieve the pressure from the transfer pump (resin side only).
- Disconnect the air line from the transfer pump (resin side only).
- Close 1/4 turn ball valve at "Y" strainer.
- Remove transfer pump from 55 gallon drum. Wipe excess material from pump with disposable rag (resin side only).
- Tilt pump over clean container in order to drain the chemical off of the top of the pump piston.
- Place transfer pump into container of clean water.
- Replace "bung cap" into the drum that it came out of. Tighten bung to prevent loss of blowing agent.
- Decrease air pressure on air line for the transfer pump. Install air line to transfer pump.
- Open 1/4 turn ball valve at "Y" strainer.
- Place spray hose end (gun block) over container that was used to drain pump into and slowly open the resin side manual valve. The transfer pump in the container of water should start to slowly pump water into the system while pushing the Heatlok Soy out.
- Place reactor into JOG mode and allow the reactor to cycle (stroke) a few times to discharge any chemicals out of the proportioning pump.
- While in JOG mode wash the dip tube of transfer pump with water using a disposable cup and wipe down the frame with a wet disposable rag.
- Watch for a color and viscosity change in the chemicals coming from hose end.
- After water has reached the hose end, take Reactor out of JOG mode.
- Disconnect the air line from the transfer pump.
- Close 1/4 turn valve at "Y" strainer.
- Remove bung from Sealection drum.
- Remove transfer pump from container of water. Drain top side of piston into container and wipe with disposable rag.
- Place transfer pump into Sealection drum.
- Connect air line to transfer pump.
- Open 1/4 turn valve at "Y" strainer.
- Turn on B-side primary heater and hose heat circuit.
- Pressurize resin transfer pump.



- Open resin manual valve at hose end (gun block).
- Pump approximately 3 gallons of Sealection 500 resin into an empty container.
- Watch for a color and viscosity change in the chemicals coming from hose end.
- After change in chemical is observed, close resin side manual valve.
- Pressurize A-side transfer pump.
- Pump a few strokes of A-side chemical into the container of the resin/water mixture.
- Close A-side manual valve.
- While the mixture starts to react, stir the mixture with a disposable stick.
- Pour reacted mixture into a plastic trash bag, cut into small pieces and dispose of.
- Attach spray hose to circulation block.
- Disconnect air line from A-side transfer pump.
- Remove A-side transfer pump from A-PMDI Isocyanate drum and install bung cap.
- Install A-side transfer pump into A-PMDI Isocyanate drum.
- Machine is ready for circulation and spraying of Sealection products.