

NATURAL POLYMERS™

CHEMICAL CHANGEOVER SOP

Warning: Use required Personal Protective Equipment (PPE) to protect from unintended exposure to chemicals. Consult SDSs for guidance.

Note: Perform changeovers when system is at ambient conditions. Do not perform changeovers on a system that has been heated. This may cause froth-overs, splattering of chemicals, and other adverse impacts. Please refer the safety information of each product to the Safety Data Sheet.

PUMP REMOVAL AND CLEANING

(Perform before all flush methods)

1. Remove transfer pump from original drum and place in clean waste container. (Use different containers for A and B if switching both over.)
2. Wipe down pump with clean rag to remove all excess material from the fluid section.
3. Find the inlet ball at the bottom of the foot valve. If loose, press the ball in with your finger, and allow any chemical in the chamber to fully drain. Wipe off excess.
4. Tip pump upside down, and drain excess chemical from the top of the pump tube into the waste container.
5. Do a final wipe-down of the pump. (Repeat for A if switching over as well.)
6. Dispose of A-component and B-component wastes and rags separately, do not combine.



SYSTEM FLUSH

(Full Air Flush Method)

Do not use on A-side. Air contains moisture that is highly reactive with MDI. Introducing air can have adverse impacts to the A-side of the system.

1. Place cleaned pump in new drum of material.
2. Attach air line to the flush fitting located between pump and transfer line.
3. Open recirculation valve, and purge with air until sputtering reduces and air is flowing cleanly through the system. Close valve.
4. Remove gun from manifold, and open manifold valve into the bung opening of the previous chemical. Allow hose to flush with air until sputtering reduces and air is flowing cleanly through the system. Close manifold.
5. Remove air line from flush fitting, and attach air to pump supply.
6. Open manifold valve over a waste container, allowing new chemical to fill line until sputtering and air pockets are completely flushed from system and clean flow of new chemical is achieved. Close manifold valve, and reattach gun to manifold.
7. Remove recirculation line from previous drum, and open recirculation line into the waste container, allowing new chemical to fill line until sputtering and air pockets are completely flushed from system and clean flow of new chemical is achieved. Close valve, and reattach line to new drum.
8. Fully pressurize the system, and verify that A- and B-side pressures rise evenly. If significant variance occurs, there is likely an air pocket still in the line. Repeat 7–9, verify all air is purged from the line, and test again.
9. Always test spray on waste substrate to verify the switchover is completed before applying foam in a project. If good foam is not yet observed, either spray out waste foam or bleed from the manifold into a waste container until good foam is achieved.

SYSTEM FLUSH

(Air Pocket Method)

Do not use on A-side. Air contains moisture that is highly reactive with MDI. Introducing air can have adverse impacts to the A-side of the system.

1. Place clean pump in a clean, empty pail.
2. Open the recirculation valve.
3. With air valve closed, attach compressed air to the pump connection.
4. Slowly open the valve to allow compressed air to fill the transfer line and recirculation line with air. This will also pump all material from the recirculation hose into the existing drum. (Be careful to hold the pump steady because it will cavitate as it draws air into the system.)
5. Listen for air sputtering through the recirculation line, turn off air valve, and remove hose. Close recirculation valve.
6. Place pump in new drum of chemical, reattach air supply, and slowly open valve.
7. Remove gun from manifold, and clean off any excess chemical from manifold block.
8. Place manifold opening over the bung opening of the previous material, and open manifold valve. Continue to drain chemical until sputtering (pockets of air) begin to come through. Close manifold valve.
9. Move manifold to waste container, and continue to bleed line until sputtering completely stops and air is completely purged from the system.
10. Reattach gun to manifold, and set aside.
11. Open recirculation valve, and allow the recirculation line to purge until air sputters through. Move to waste container, and continue to purge until all air is completely purged from the system. Place recirculation fitting on the new drum.
12. Fully pressurize the system, and verify that A- and B-side pressures rise evenly. If significant variance occurs, there is likely an air pocket still in the line. Repeat 7–9, verify all air is purged from the line, and test again.
13. Always test spray on waste substrate to verify the switchover is completed before applying foam in a project. If good foam is not yet observed, either spray out waste foam or bleed from the manifold into a waste container until good foam is achieved.

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