

Envirofoam Closed cell Foam Model # Shark Armor 2.0 Application Guide

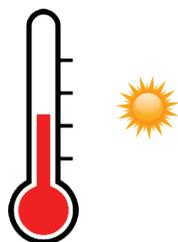
PRECONDITIONING



- Material should be 70 - 80°F for optimal performance. (B-side)
- This is the Interior Drum material not the steel on the exterior drum

PRIMARY AND HOSE HEATERS TEMPS

Temperature Settings

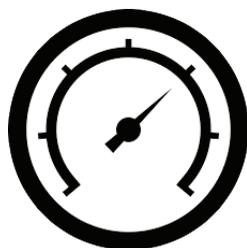


Summer: 104- 115°F
Exterior Ambient Temps Approx 80°F +

Fall: 110- 122°F
Exterior Ambient Temps Approx 60°F +



Winter: 115- 130°F
Exterior Ambient Temps Approx 50°F +



Pressure Settings

Dynamic Pressure:
1300 psi minimum

Static Pressure:
1150 - 1600 psi

Summary:

Pressure Should be a Min of 1150 Psi

Substrate temperatures should be between 50 -104° F

Flush an adequate amount of material through the lines/gun prior to spraying desired surface when changing between systems. Flush amount will be dependent on prior system used. Can be applied up to 4 inches max. Allow 30 min before next pass and double each time after to PREVENT THE RISK OF CHARRING OR FIRE.



877-362-6552

Dial-In Guide

In order to maximize expansion and optimize yield on Envirofoam, it is important to dial-in the foam at each job-site. Dialing-in not only improves yield, but it also improves the quality of the foam, making the job more profitable with fewer issues.

As per Envirofoam recommendations, do the following:

1. Determine temperature settings starting point.

Substrate Temp	Set Equipment Temp At
<40°F	130°F
40-50°F	122F
50-115°F	115°F
>115°F	105°F

Temperature Settings:

105°F

Standard Starting point

2. Test spray on cardboard to make sure you are making good foam.
3. Start spraying on the jobsite.
4. After spraying approximately six cavities, check expansion time of foam. Adjust equipment temperature settings until rise time is dialed-in. Rise time is defined to be from the time you release the trigger to the time the foam is fully expanded.

Foam Rise Time	Status
<3 sec.	Foam too hot—turn down temp settings
3-3.5 sec	Temp dialed-In Properly
>4 sec	Foam too cold—turn up temp settings

Rise Time:

3-4 sec

5. Dialing in Pressure—start at 1150 psi. Optimal pressure settings for maximum output of product will likely be 1150-1600 psi. Higher pressure will typically lead to greater performance and fewer issues.

Pressure Settings:

1150 psi

Starting point for new sprayers

Optimal Pressure Settings:

1150-1600 psi

Changeover Guide

If you are changing to Envirofoam from closed-cell foam or from a competitor's foam, you must not allow the first product to contaminate the Envirofoam resin drum.

CHANGING TO ENVIROFOAM

As per Envirofoam recommendations, do the following: **NOTE: This is B-Side Only**

1. Turn the hose heat and primary heaters off.
2. Clean your B-Side Pump as as much as possible.
3. Remove the B-Side hose from the Spray Gun
4. Place pump into a 5 Gallon bucket of Water Preferably Warm if possible.
5. Pump the water through the lines until you see water come out of the B-Side hose.
6. Make sure the return lines, drum pump, and pump housing are completely free of the previous resin.
7. Place drum pump into the Envirofoam resin drum.
8. If you have a pressure relief line, pump the contents to the previous drum or into a waste container
9. Spray a test out onto a sheet of cardboard or wood, and watch for good foam. This is the only way to make sure that the previous foam material is out of your lines. just changing drums without completely purging your lines may result in low Yields or even contaminating 1 or more sets of the Envirofoam drums of B-Side material.

Troubleshooting Guide

Appearance Issues	Probable Causes	Recommended Solutions
Slow rise and/or runny foam	Cold material (lack of heat), cold substrate	<ol style="list-style-type: none"> 1. Increase heat (primary and hose). 2. Pre-warm substrate or area of installation if possible. If not, flashing technique can be used. 3. Ensure material in drums is within its processing temperature range.
Finished foam not smooth or being blown off	Spraying too close, spray gun motion too slow, spray pressures set too high	<ol style="list-style-type: none"> 1. Ensure proper distance and pressure as determined by mix chamber size. 2. Keep spray gun motion and amount of overlap consistent throughout. Maintain sufficient speed of application for pressure and mix chamber size.
Excessive overspray	High wind, spray area not sealed off, spraying too far from substrate, spray pressure set too high	<ol style="list-style-type: none"> 1. Protect areas not to be foamed with poly and be aware of surroundings and wind conditions. 2. Ensure proper distance as determined by pressure and mix chamber size.
Foam is a lighter color, is soft & spongy & tacky, foam is shrinking	Blockage on Iso side at gun, lack of material being supplied on Iso side	<ol style="list-style-type: none"> 1. Check and clean in-line filters at proportioner and spray gun. Replace screens if 20% or more clogged. 2. Check for empty or cold drum. 3. Check for blocked side-seal or impingement port. 4. Check ball valves and air supply to transfer pumps, then ball valves and seals on proportioner.
Foam is a darker brown color, is brittle & chalky, foam is shrinking	Blockage on Resin side at gun, lack of material being supplied on Resin side	<ol style="list-style-type: none"> 1. Check and clean in-line filters at proportioner and spray gun. Replace screens if 20% or more clogged. 2. Check for empty or cold drum. 3. Check for blocked side-seal or impingement port. 4. Check ball valves and air supply to transfer pumps, then ball valves and seals on proportioner.
Foam has excessive dripping during Long-Range Application	Too close to substrate, material too cold	<ol style="list-style-type: none"> 1. For best results when using a 1/2" extension tip, apply foam at a distance between 5-10'. 2. For best results when using a 1" extension tip, apply foam at a distance between 8-20'. 3. Increase heat (primary and hose). 4. Pre-warm substrate or area of installation if possible. If not, flashing technique can be used. 5. Ensure material in drums is within its processing temperature range.

Troubleshooting Guide

Other Issues	Probable Causes	Recommended Solutions
Foam falls off substrate or is easily removed within a few hours after application	Cold substrate, cold material (lack of heat), improperly prepared substrate	<ol style="list-style-type: none"> 1. Increase heat (primary and hose). 2. Pre-warm substrate or area of installation if possible. If not, flashing technique can be used. 3. Ensure material in drums is within its processing temperature range.
Yield under 5,500 board feet	Cold material (lack of heat), cold substrate, excessive overspray, thin passes, excessive touch-ups, off-ratio foam, degraded material	<ol style="list-style-type: none"> 1. Increase heat (primary and hose). 2. Pre-warm substrate or area of installation if possible. If not, flashing technique can be used. 3. Ensure proper distance and pressure as determined by mix chamber size. 4. Keep spray gun motion and amount of overlap consistent throughout. Maintain sufficient speed of application for pressure and mix chamber size. 5. Protect areas not to be foamed with poly and be aware of surroundings. 6. Check and clean in-line filters at proportioner and spray gun. Replace screens if 20% or more clogged. 7. Check for empty or cold drum. 8. Check for blocked side-seal or impingement port. 9. Check ball valves and air supply to transfer pumps, then ball valves and seals on proportioner. 10. Ensure material in drums is within its processing temperature range.
Density is too high	Cold substrate, cold material, thin passes, degraded material, spraying too far	<ol style="list-style-type: none"> 1. Increase heat (primary and hose). 2. Pre-warm substrate or area of installation if possible. If not, flashing technique can be used. 3. Ensure proper distance and pressure as determined by mix chamber size. 4. Spray maximum amount per pass and avoid excessive touch-up work. 5. Ensure material in drums is within its processing temperature range.
Foam is popping and cracking	Likely cold substrate, thick passes, previous pass not cool, cold material	<ol style="list-style-type: none"> 1. Increase heat (primary and hose). 2. Pre-warm substrate or area of installation if possible. If not, flashing technique can be used. 3. Ensure substrate is clean, dry, and properly prepared in accordance with the Installation Instructions. 4. Spray maximum amount per pass and avoid excessive touch-up work. 5. Adhere to proper waiting times before applying subsequent passes.
Pressure guage differential greater than 400 psi or E24 on Graco Reactor	Cold material (lack of heat), blockage at the gun, lack of material being supplied	<ol style="list-style-type: none"> 1. Increase heat (primary and hose). 2. Check and clean in-line filters at proportioner and spray gun. Replace screens if 20% or more clogged. 3. Check for empty or cold drum. 4. Check for blocked side-seal or impingement port. 5. Check ball valves and air supply to transfer pumps, then ball valves and seals on proportioner. 6. Ensure material in drums is within its processing temperature range.