PRECONDITIONING

Material temperature should be 60-80°F, for optimal performance SWD recommends 70-80°F.

PRIMARY HOSE AND HEATER TEMPS



Summer Temperature Settings

110 - 125°F



Winter Temperature Settings

125 - 140°F



Dynamic Pressure Settings

1000 psi minimum

Static Pressure Settings

1100-1600 psi

STORAGE

Storage temperatures should be 50-100°F (10-38° C). Store out of direct sunlight, in a cool dry place, and avoid freezing.



Do not spray foam when substrate surface temperatures are less than 5°F above the dew point.

In order to maximize expansion and optimize yield on Quik-Shield 118, it is important to dial-in the foam at each jobsite. Dialing-in not only improves yield, but it also improves the quality of the foam, making the job more profitable with fewer issues. Quik-Shield 118 expands greater and faster than most closed-cell foams. It is important stay in front of the rising foam by adjusting your speed and/or spray technique

As Per SWD's recommendations, do the following;

1. Determine temperature settings starting point.

Substrate Temperature	Set Equipment Temperature At
< 40°F	130°F
40-50°F	125°F
50-115°F	120°F
>115°F	115°F

Temperature Settings:

120°F

Standard Starting Point

- 2. Test spray on cardboard or plastic 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
≥ 3.5 sec	Foam too cold — turn up temp settings

Rise Time: **3-3.5 Sec**

5. Dialing in Pressure—start at 1200 psi. Optimal pressure settings for maximum output of product will likely be 1100-1600 psi. Higher pressure will typically lead to greater performance and fewer issues.

Dynamic Pressure Settings:

1200 psi

Starting Point For New Sprayers

Optimal Pressure Settings:

1100-1600 psi



If you are changing to Quik-Shield 118 foam from closed-cell foam or from a competitor's foam, you must not allow the first product to contaminate the Quik-Shield 118 resin drum.

CHANGING TO QUIK-SHIELD 118

As per SWD's recommendations, do the following:

- 1. Turn the hose heat and primary heaters off.
- 2. Make sure the return lines, drum pump, and pump housing are completely free of the previous resin.
- 3. Place drum pump into the Quik-Shield 118 resin drum.
- 4. If you have a pressure relief line, pump the contents to the previous drum or into a waste container with the transfer pumps.
- 5. Connect the pressure relief to the new drum.
- 6. If switching from a similar product, it's best to spray it out.
- 7. If you want to purge the material rather than spray it out, remove the gun from the hose manifold and pump the hose contents into the previous drum until you see a color change. Some liquid in the line may remain as a mixture of the two resins. Run this mixture into a container or spray out as foam for disposal.
- 8. Spray a test out onto a sheet of cardboard or wood, and watch for good foam.

APPLICATION TIPS

- When switching products, flush all hoses with Quik-Shield 118 prior to spraying. Contamination from other products may cause foam quality issues.
- Always hold spray gun perpendicular to the surface being sprayed. Spraying at an angle can cause a lack of adhesion to the substrate and an irregular surface of the foam.
- Avoid spraying onto rising foam because this can cause displacement of the rising foam, which can lead to excessive dripping.
- Ensure spray equipment is always maintained in proper operating condition with a regular maintenance program



Troubleshooting Guide

Appearance Issues	Probable Causes	Recommended Solutions
Slow rise and/or runny foam	Cold material (lack of heat), cold substrate	 Increase heat (primary and hose). Pre-warm substrate or area of installation if possible. If not, flashing technique can be used. 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	 Ensure proper distance and pressure as determined by mix chamber size. 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	 Protect areas not to be foamed with poly and be aware of surroundings and wind conditions. 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	 Check and clean in-line filters at proportioner and spray gun. Replace screens if 20% or more clogged. Check for empty or cold drum. Check for blocked side-seal or impingement port. 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	 Check and clean in-line filters at proportioner and spray gun. Replace screens if 20% or more clogged. Check for empty or cold drum. Check for blocked side-seal or impingement port. 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	 For best results when using a 1/2" extension tip, apply foam at a distance between 5-10'. For best results when using a 1" extension tip, apply foam at a distance between 8-20'. Increase heat (primary and hose). Pre-warm substrate or area of installation if possible. If not, flashing technique can be used. Ensure material in drums is within its processing temperature range.
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	 Increase heat (primary and hose). Pre-warm substrate or area of installation if possible. If not, flashing technique can be used. Ensure material in drums is within its processing temperature range.



Troubleshooting Guide

Other Issues	Probable Causes	Recommended Solutions
Lower Yield than Expected	Cold material (lack of heat), cold substrate, excessive overspray, thin passes, excessive touch- ups, off-ratio foam, degraded material	 Increase heat (primary and hose). Pre-warm substrate or area of installation if possible. If not, flashing technique can be used. Ensure proper distance and pressure as determined by mix chamber size. Keep spray gun motion and amount of overlap consistent throughout. Maintain sufficient speed of application for pressure and mix chamber size. Protect areas not to be foamed with poly and be aware of surroundings. Check and clean in-line filters at proportioner and spray gun. Replace screens if 20% or more clogged. Check for empty or cold drum. Check for blocked side-seal or impingement port. Check ball valves and air supply to transfer pumps, then ball valves and seals on proportioner. 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	 Increase heat (primary and hose). Pre-warm substrate or area of installation if possible. If not, flashing technique can be used. Ensure proper distance and pressure as determined by mix chamber size. Spray maximum amount per pass (2" except for 1st pass of Quik-Shield 118 at 4") and avoid excessive touch-up work. 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	 Increase heat (primary and hose). Pre-warm substrate or area of installation if possible. If not, flashing technique can be used. Ensure substrate is clean, dry, and properly prepared in accordance with the Installation Instructions. Spray maximum amount per pass (2" except for 1st pass of Quik-Shield 118 at 4") and avoid excessive touch-up work. Adhere to proper waiting times before applying subsequent passes.
E24 on Graco Reactor	Cold material (lack of heat), blockage at the gun, lack of material being supplied	 Increase heat (primary and hose). Check and clean in-line filters at proportioner and spray gun. Replace screens if 20% or more clogged. Check for empty or cold drum. Check for blocked side-seal or impingement port. Check ball valves and air supply to transfer pumps, then ball valves and seals on proportioner. Ensure material in drums is within its processing temperature range.

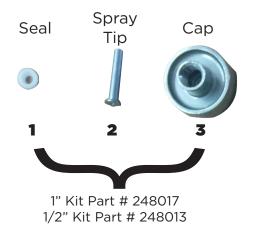


With the help of SWD technical support, Quik-Shield 118 has the capability of spraying foam up to 20 feet away. This technology can decrease the time consumed setting up ladders and scaffolds transforming the way closed-cell is staged and applied.

Contact SWD Technical support for more information.

GUN TIP ASSEMBLY

For best results we recommend using either a $\frac{1}{2}$ inch or 1 inch extension and adapter for a 02 Round mix chamber (AR5252) for a Graco Fusion Gun.









Insert the seal on the tip of the mixing chamber.

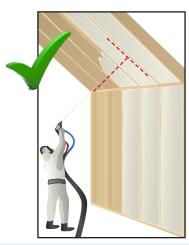
Insert the spray tip over the seal.

Screw on the cap over the spray tip

For other types of guns, contact SWD Tech Support at 800-380-2022.

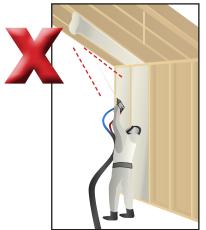
APPLICATION BEST PRACTICES

- · Start at the bottom of the roof deck (at roof to wall transition), and work your way up to the peak
- Apply foam in an even and consistent lift with a side-to-side motion
- Hold the spray gun perpendicular to the substrate
- For best results when using a ½ inch extension tip, apply foam at a distance between 5-10 feet.
- For best results when using a 1 inch extension tip, apply foam at a distance between 8-20 feet.
- If you spray too close to the substrate, it can cause the foam to splatter and create a very uneven surface.
- Heat and pressure settings may need to be adjusted as necessary.



Spray as close to a 90° angle as possible.

DO spray perpendicular to the deck, from the bottom to the top.



Spraying at less than a 90° angle can cause issues.

DON'T spray at an angle because it may negatively affect the adhesion of the foam.



The information herein is believed to be reliable; however, unknown risks may be present. SWD Urethane makes no warranty, expressed or implied, concerning this product's merchantability or fitness for any particular use. The product will meet the written liquid component specifications as indicated on the technical data sheet published at the time of the purchase. The entirety of SWD Urethane's responsibility is limited only to the cost of the SWD material. The foregoing constitutes SWD Urethane's sole obligation with respect to damages, whether direct, incidental or consequential, resulting from the use or performance of the product.

Safety is the responsibility of the owner, the owner's appointed representative, the contractor, and/or inspector. Become familiar with local, state, and federal regulations regarding chemical health, safety, and handling. For more information consult the product SDS, contact the SPFA (www.sprayfoam.org) or the ACC (www.spraypolyurethane.org).