



# Quik-Shield 144 - Quick-Start Processing

## PRECONDITIONING

- Material should be 60 - 80°F for optimal performance.

## PRIMARY AND HOSE HEATERS TEMPS



### Temperature Settings



Summer: 110 - 125°F



Winter: 125 - 140°F



### Pressure Settings

Dynamic Pressure:  
1000 psi minimum

Static Pressure:  
1100 - 1400 psi



# Quik-Shield 144 - Dial-In Guide

Dialing-in the foam at each jobsite is important in order to maximize expansion and optimize yield on Quik-Shield 144. Not only does it improve yield, but dialing-in also improves the quality of the foam, making the job more profitable with fewer issues.

As per SWD’s recommendations, do the following:

1. Determine temperature settings starting point.

Substrate Temp	Set Equipment Temp At
<40°F	135°F
40-50°F	130°F
50-115°F	120°F
>115°F	115°F

Temperature Settings:

**125°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
3-4 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 1200 psi. Optimal pressure settings for maximum output of product will likely be 1100-1400 psi. Higher pressure will typically lead to greater performance and fewer issues.

Pressure Settings:

**1200 psi**

Starting point for new QS144 sprayers

Optimal Pressure Settings:

**1100-1400 psi**





# Quik-Shield 144 - Changeover Guide

If you are changing to Quik-Shield 144 foam from closed-cell foam or from a competitor's foam, you must not allow the first product to contaminate the Quik-Shield 144 resin drum.

## CHANGING TO QUIK-SHIELD 144

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 144 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.



# Quik-Shield 144 - Seasonal Processing Guide

Techniques for optimal Quik-Shield 144 closed-cell foam differs from summer to winter applications. Adherence to these specific techniques will help maximize both the physical and thermal properties of the foam.



Winter: Temperatures below 70°F



Summer: Temperatures above 70°F

## STORAGE

Storage temperatures should be 50-90°F (10-32° C). Store out of direct sunlight, in a cool dry place, and avoid freezing. Caution: If the drum temperature is 80°F or higher, use caution when opening the drum! The contents will be under pressure.

## PRECONDITIONING



A & B liquid components need to be preconditioned in the drums to a minimum of 60°- 80°F (16-27°C).

\*Do not recirculate



If the core temperature of the material is already greater than 70°F (21°C), no preheating is necessary.

## TEMPERATURE & PRESSURE SETTINGS



Hose Heaters	125-140° F (51-60° C)
Primary Heaters (A&B)	125-140° F (51-60° C)
Dynamic Pressure (A&B)	1000 psi minimum
Static Pressure (A&B)	1100-1400 psi



Hose Heaters	110-125° F (43-51° C)
Primary Heaters (A&B)	110-125° F (43-51° C)
Dynamic Pressure (A&B)	1000 psi minimum
Static Pressure (A&B)	1100-1400 psi

\*These settings may vary according to specific jobsite conditions and should be maintained to the spray gun by heated hoses. These are recommendations only, individual variations may be needed.

## APPLICATION TIPS

- When switching products, flush all hoses with Quik-Shield 144 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.
- The ideal distance is approximately 18-24".
- 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.

**For Additional Questions, Call SWD Tech Support at 888-380-2022**

PUBLISH DATE: 07/2021





# Quik-Shield 144 - 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"> <li>1. Increase heat (primary and hose).</li> <li>2. Pre-warm substrate or area of installation if possible. If not, flashing technique can be used.</li> <li>3. Ensure material in drums is within its processing temperature range.</li> </ol>
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"> <li>1. Ensure proper distance and pressure as determined by mix chamber size.</li> <li>2. Keep spray gun motion and amount of overlap consistent throughout. Maintain sufficient speed of application for pressure and mix chamber size.</li> </ol>
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"> <li>1. Protect areas not to be foamed with poly and be aware of surroundings and wind conditions.</li> <li>2. Ensure proper distance as determined by pressure and mix chamber size.</li> </ol>
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"> <li>1. Check and clean in-line filters at proportioner and spray gun. Replace screens if 20% or more clogged.</li> <li>2. Check for empty or cold drum.</li> <li>3. Check for blocked side-seal or impingement port.</li> <li>4. Check ball valves and air supply to transfer pumps, then ball valves and seals on proportioner.</li> </ol>
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"> <li>1. Check and clean in-line filters at proportioner and spray gun. Replace screens if 20% or more clogged.</li> <li>2. Check for empty or cold drum.</li> <li>3. Check for blocked side-seal or impingement port.</li> <li>4. Check ball valves and air supply to transfer pumps, then ball valves and seals on proportioner.</li> </ol>
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"> <li>1. Increase heat (primary and hose).</li> <li>2. Pre-warm substrate or area of installation if possible. If not, flashing technique can be used.</li> <li>3. Ensure material in drums is within its processing temperature range.</li> </ol>
Lower Yield than Expected	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"> <li>1. Increase heat (primary and hose).</li> <li>2. Pre-warm substrate or area of installation if possible. If not, flashing technique can be used.</li> <li>3. Ensure proper distance and pressure as determined by mix chamber size.</li> <li>4. Keep spray gun motion and amount of overlap consistent throughout. Maintain sufficient speed of application for pressure and mix chamber size.</li> <li>5. Protect areas not to be foamed with poly and be aware of surroundings.</li> <li>6. Check and clean in-line filters at proportioner and spray gun. Replace screens if 20% or more clogged.</li> <li>7. Check for empty or cold drum.</li> <li>8. Check for blocked side-seal or impingement port.</li> <li>9. Check ball valves and air supply to transfer pumps, then ball valves and seals on proportioner.</li> <li>10. Spray maximum amount per pass (4 in.) and avoid excessive touch-up work.</li> <li>11. Ensure material in drums is within its processing temperature range.</li> </ol>

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# Quik-Shield 144 - Troubleshooting Guide

Density is too high	Cold substrate, cold material, thin passes, degraded material, spraying too far	<ol style="list-style-type: none"><li>1. Increase heat (primary and hose).</li><li>2. Pre-warm substrate or area of installation if possible. If not, flashing technique can be used.</li><li>3. Ensure proper distance and pressure as determined by mix chamber size.</li><li>4. Spray maximum amount per pass (4 in.) and avoid excessive touch-up work.</li><li>5. Ensure material in drums is within its processing temperature range.</li></ol>
Foam is popping and cracking	Likely cold substrate, thick passes, previous pass not cool, cold material	<ol style="list-style-type: none"><li>1. Increase heat (primary and hose).</li><li>2. Pre-warm substrate or area of installation if possible. If not, flashing technique can be used.</li><li>3. Ensure substrate is clean, dry, and properly prepared in accordance with the Installation Instructions.</li><li>4. Spray maximum amount per pass (4 in.) and avoid excessive touch-up work.</li><li>5. Adhere to proper waiting times before applying subsequent passes.</li></ol>
E24 on Graco Reactor	Cold material (lack of heat), blockage at the gun, lack of material being supplied	<ol style="list-style-type: none"><li>1. Increase heat (primary and hose).</li><li>2. Check and clean in-line filters at proportioner and spray gun. Replace screens if 20% or more clogged.</li><li>3. Check for empty or cold drum.</li><li>4. Check for blocked side-seal or impingement port.</li><li>5. Check ball valves and air supply to transfer pumps, then ball valves and seals on proportioner.</li><li>6. Ensure material in drums is within its processing temperature range.</li></ol>

