Best Practices & Guide



Lapolla FL 2000 4G™ Best Practices

In order to properly process Lapolla FL 2000 4G[™] and to maximize yield, please adhere to the following guidelines:

Storage:

- Once received, FL 2000 4G[™] drums should be stored at 65°F to 85°F.
- FL 2000 4G[™] drums should be stored out of direct sunlight and out of cold temperatures.
- Do not store material on rigs other than what is required for current application needs, as materials left inside of rigs can easily exceed these recommended storage temperatures.
- FL 2000 4G[™] B-side resin has a 6 month shelf life if stored as stated.
- Follow FIFO (First-In-First-Out) stock rotation.

Mixing:

- Note: Lapolla FL 2000 4G[™] does not require any mixing prior to or during application.
- If changing to Lapolla FL 2000 4G[™] from another product follow the changeover procedure below.

Heating:

- Drum temperatures for processing Lapolla FL 2000 4G[™] (B-side Resin and A-side Iso) need to be between 65°F and 85°F.
- In cooler weather the Lapolla FL 2000 4G[™] drums should be kept at the stated storage temperature range so that pre-heating is not necessary.
- Drum band heaters or electrically heated drum blankets can be used to warm and maintain the drum temperatures between 65°F and 85°F.
- Do not exceed 85°F as the blowing agent will start to come out of the resin blend which may lead to frothing, poor quality foam, and a possible pressure build up in the drum.
- Note: Do not circulate the Lapolla FL 2000 4G™ B-side resin to warm the drum.

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Processing Temperature and Pressure:

In standard ambient conditions the following are recommended for processing FL 2000 4G™:

Drum Temperatures: 65°F to 85°F All heaters for FL 2000 4G™ - Regular: 105°F to 125°F All heaters for FL 2000 4G™ - Summer: 105°F to 120°F Pressure: 1,000 to 1,250 psi (dynamic)

Spray Distance: 18" to 24"

- In cooler weather, increase the A, B and Hose heats gradually.
- In warmer weather, decrease the A, B and Hose heats gradually.

Please be aware that altering recommended settings may cause poor foam quality and a substantial reduction in yield.

Environmental Issues:

• Lapolla FL 2000 4G[™] may be sprayed at the following ambient / substrate temperatures:

| Lapolla FL 2000 4G™ – Regular | 35 to 75°F |
|-------------------------------|-------------|
| Lapolla FL 2000 4G™ – Summer | 55 to 120°F |

- Use wind screens if spraying where the wind speed is over 10mph.
- Wet, saturated substrates will cause bubbling in the foam and loss of adhesion.
- Substrates must be clean, dry and free of contaminants such as grease, oil and solvents.

Spray Technique:

- Maintain the proper distance as recommended above.
- Always spray with the spray gun at a 90 degree angle to the substrate.
- For wall cavities the best technique is to "picture frame" the studs and then to vertically fill in the middle in 24" to 36" sections while overlapping by 50 percent.
- For flat concrete or metal substrates maintain a gun angle of 90 degrees and a spray distance of around 18" to 24" (depending on chamber size and psi) with an overlap of around 50 percent.
- Build thickness by spraying on to the expanding material (known as the "cream").
- When spraying passes at or over 2.5" it is optimal to spray it like open cell (side to side) to obtain the highest possible yields so adjust the pressures accordingly.
- "Flashing" is recommended for best adhesion to cold substrates.
- Spray a minimum of ½" per pass so as to not affect the foam's adhesion.

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- Lapolla FL 2000 4G[™] can be sprayed up to 5.5 inches in one pass in either a full 5.5 inch lift or in a combination of lifts immediately following one another. Please be aware that if spraying multiple passes to obtain a 5.5 inch lift, there will be a slight reduction in overall yield.
- For thicknesses greater than 5.5 inches, the above procedure can be repeated after 30 minutes or until the surface temperature has returned to ambient.
- Spraying too thick in one pass or spraying multiple passes without waiting for the foam to cool can cause the foam to scorch or even to catch fire due to excessive heat build-up within the foam.
- <u>LIMITATIONS</u>: Only wood and concrete substrates may receive 5.5 inches per application.
 Metal substrates thinner than 22 gauge and sheet rock substrates should be applied at 1 inch for the first pass. Low voltage wiring should not be encased in a single 5.5 inch pass.

Changeover:

- If you are changing in to FL 2000 4G[™] from another product you must not allow the other product to contaminate the FL 2000 4G[™] resin drum.
 - Make sure the drum pump and pump housing are completely free of the previous resin.
 - Allow some air in to the drum pump.
 - o Put the drum pump in to the drum of FL 2000 4G™ resin.
 - If you have a re-circulation/pressure-relief line, pump the contents to the previous drum or into a waste container with the transfer pumps.
 - o Connect the re-circulation/pressure relief line to the FL 2000 4G[™] drum lid.
 - Remove the gun from the hose manifold and pump the hose contents in to the previous drum until you see a color change or until you reach the air pocket in the line.
 - Keep the hose heat on at 125°F during changeover.
 - There will be some mixture of the two resins in the line which you can run in to a container for disposal or spray out as foam for disposal.
 - Spray a test bun and watch for good foam with no collapse.
- Make sure recommended settings are followed before installing FL 2000 4G[™] as outlined above.

Before spraying Lapolla FL 2000 4G[™] for the first time you should contact lcynene-Lapolla Technical Services for installation guidance.

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