Lapolla FL 500™ Best Practices

In order to properly process Lapolla FL 500™ and to maximize yield, please adhere to the following guidelines:

Storage:
- Once received, FL 500™ drums should be stored at 50°F to 90°F. This will allow for quicker warm up of materials and will keep the B-side resin from degrading prematurely.
- 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 500™ 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 500™ does NOT require mixing prior or during application. If changing to FL 500™ from another product, follow the changeover procedure below.

Heating:
- For improved yield, it is recommended to warm the material in the drums. The ideal drum temperature for processing Lapolla FL 500™ (B-side Resin and A-side ISO) is 80°F.
- If necessary in cooler weather and while mixing, the proportioner if equipped with circulation lines, can be used to warm up the drums to 85°F by circulating through the machine back to the drums. The machine heaters should be set no higher than 110°F during this operation.
- If not equipped with a circulation system, drum band heaters or electrically heated drum blankets can be used to warm and maintain the drum temperatures at 85°F. Non-heated drum blankets can be used with a circulation system to maintain drum temperatures at 85°F. In all cases be careful not to overheat the drums (over 90°F).
- Drum temperatures in excess of 90°F may decrease performance and produce cosmetic defects within the foam structure and surface.
- If you have a hose circulation block, it is also good practice to circulate the hose for about 10 minutes before spraying FL 500™.
Best Practices & Guide

Processing Temperature and Pressure:

- In standard ambient conditions of 20°F to 120°F Lapolla recommends the following for processing FL 500™:
  
  Drum Temperatures: 80°F  
  A and B Primary Heaters: 130°F to 140°F  
  Hose Heat: 130°F to 140°F  
  Mix Chamber: AR5252 (02 round)  
  Pressure: 1200 psi (dynamic)  
  Spray Distance: 12” to 14”

- Ideally the foam should stop rising in about 5 to 6 seconds.
- In cold weather (below 60°F) increase the A, B and Hose heats in 3 degree increments (up to 150°F) to achieve this rise time.
- In hot weather (above 85°F) decrease the A, B and Hose heats in 3 degree increments (down to 120°F) to achieve this rise time.
- To maximize yield Icynene recommends using an AR5252 (02 round) at 1200 psi dynamic pressure. If it is necessary to use another sized chamber, use the following guidelines:

<table>
<thead>
<tr>
<th>Mix Chamber Size</th>
<th>Pressure (dynamic)</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>00 (2929)</td>
<td>700-900 psi</td>
<td>10” - 12”</td>
</tr>
<tr>
<td>01 (4242)</td>
<td>900-1100 psi</td>
<td>12” - 14”</td>
</tr>
<tr>
<td>02 (5252)</td>
<td>1100-1350 psi</td>
<td>12” - 14”</td>
</tr>
<tr>
<td>03 (6060)</td>
<td>1350-1500 psi</td>
<td>14” - 17”</td>
</tr>
</tbody>
</table>

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

Cold Weather Applications:

In most cases, the best application technique for cold weather, is to work from the bottom to the top of the intended target. This allow the material to build and maintain heat as the material reacts and helps overcome cold ambient and substrate conditions. Minimum pass thickness per pass in cold weather should result no less than 2 to 3 inches of foam to insure proper temperature is developed by the reaction to attain complete reaction of all materials.
Spray Technique:
- Always spray with the spray gun at a 90 degree angle to the substrate.
- Maintain the proper distance as recommended above.
- For wall cavities, spray side-to-side from the bottom of the bay to the top while wetting the studs all the way up.
- If spraying a flat wall, maintain gun angle and distance. Don’t spray more than 2ft wide. If necessary, create “foam studs” 2ft apart as a guide.
- Spray the full thickness required in one single pass. Spraying in layers or excessive touch-up work will lead to a reduction in yield.
- When applying the material in more than one pass, 15 minutes is recommended between passes.

Changeover:
- If you are changing in to FL 500™ from another product you must not allow the other product to contaminate the FL 500™ resin drum.
  - Make sure the dip tubes, drum pump and pump housing are completely free of the previous resin.
  - Allow some air in to the drum pump or dip tube.
  - Put the drum pump in to the drum of FL 500™ 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.
  - Connect the re-circulation/pressure relief line to the FL 500™ 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 above are followed before installing FL 500™ as outlined above.

Before spraying Lapolla FL 500™ for the first time you should contact Icynene-Lapolla Technical Services for installation guidance.