

Spray Application for First Contact Coatings

Since First Contact Polymer Solution was developed to clean historically uncleanable surfaces like first surface mirrors, diffraction gratings and sensitive coatings, the preferred method of application of polymer solution is by pouring or spraying and spreading (if necessary) without surface contact. Spraying from low pressure (much less than 20psi) systems works well. High pressure systems we have experimented with as well as pressure canisters with fine atomization have tended to result in formation of spider web like tendrils and are not recommended.

On large or high volume projects, spray applications may be more feasible than brush application and should be no problem for experienced practitioners. Due to the different nature of each job, we cannot address every issue that may arise, however, we hope to provide enough information to make an informed decision possible. Please feel free to contact us to discuss any questions you have or issues that arise.

An experienced operator is essential for a safe and satisfactory job. All safety and health regulations should be known and followed. While First Contact polymer solution contains inert polymers which are not a health hazard, the solution also contains flammable solvents. Normal protocols for spraying flammables should be followed for safe usage. Follow all local, state and federal regulations regarding disposal of any coating or thinner. Photonic Cleaning Technologies is not expert in the applicable regulations, nor does any information or guidance relating to spray application of First Contact Polymer Solution imply such knowledge. Photonic Cleaning Technologies expressly denies any responsibility for how First Contact Polymer Solution is applied by the customer.

For the spray application of FIRST CONTACT COATINGS, we recommend the use of an airless sprayer. This means simply push the product out a nozzle, such as a TeeJet Fan Spray Tip (XR TeeJet80) available at agricultural supply store or www.teejet-midtech.com. Only low pressure (<10psi) is needed to spray.

We recommend the application of our products at the viscosity at which they are packaged. The decision to thin the coating must be made by the applicator based on the requirements of each job. If thinning is required, contact us to purchase appropriate solvent to dilute First Contact and use no more than the necessary.

Care should be given as to location and surrounding areas of the job site, as over spray can carry in the atmosphere.

Clean up of equipment will require flushing a quantity of clean solvent through equipment to remove all traces of product.

EQUIPMENT SPECIFICATIONS FOR SPRAYING PRODUCTS

Sprayer: Any liquid delivery system with low pressure. Note: Flow Rate is proportional to $\sqrt{\text{pressure}}$

Hose: Solvent Compatible tubing, such as polyethylene, polypropylene or Teflon.

Spray Gun: Low or Sonic Pressure Delivery (no air assist).

Spray Tips: TeeJet XR TeeJet80, for example.

Orifice Sizes Using a Fan (spray width): smallest available since low flow is needed.