

TECH LINE COATINGS, INC.

Powdr₂O (P2O) Trouble Shooting

PROBLEM	CAUSE	SOLUTION	VARIATIONS	SPECIAL NOTE
Cracking	1.Excessive thickness 2. Solvent entrapment	1. Use a smaller nozzle. 2. Increase spray pressure. 3. Apply only one coat at designated thickness. 4.Dry properly before baking		In some cases adding a little distilled water may help spray a proper thickness
Flaking	1. Water entrapment 2. Surface contaminate 3. Insufficient etch 4. Excessive heat.	1. Extend dry time, or provide an environment where the water will evaporate 2. Use a different degreasing agent 3. "Bake off" part at high temp. prior to coating 4. Etch at greater air pressure		Treat P2O as you would any water based coating. It has been the tendency of some to treat it as a dry powder and not allow to completely dry.
Peeling	1. Water entrapment 2. Surface contaminate 3. Insufficient etch 4. Excessive heat.	1. Extend dry time, or provide an environment where the water will evaporate 2. Use a different degreasing agent 3. "Bake off" part at high temp. prior to coating 4. Etch at greater air pressure		Treat P2O as you would any water based coating. It has been the tendency of some to treat it as a dry powder and not allow to completely dry.
Bubbles/Blistering	1. Solvent entrapment 2. Excessive heat at start up.	1. Allow to fully dry before baking		
Delaminating / Adhesion	1.Surface contaminate 2. Insufficient etch 3. Excessive thickness 4. Excessive heat at start up.	See above for Flaking/ Peeling		
Discoloration	1.Contaminant in the substrate 2. Excessive heat	1.Properly degrease prior to coating 2. Pre bake part 3. Check oven temperature		
Pin Holes	1. Too thin of a coat. 2. Surface contaminant 3. Solvent entrapment	1.Use larger nozzle 1.4 MM minimum recommended 2. properly Degrease 3. Pre bake part		
Clumping of coating in spray unit	1.Insufficient blending 2. Past shelf life 3. Introduction of a non compatible material	1. Blend with a dispersion blade		
Fish eyes	1. Surface contaminant 2. Insufficient blending before spraying	1.Properly degrease prior to coating 2. Pre bake part 3. Blend with a dispersion blade		
Waviness	1. Too thick of an application 2. Insufficient drying time	1. Add distilled water 2. Allow to fully dry before baking		
Balling up	1. Surface contaminant 2. Temperature of part is too cold	1.Properly degrease prior to coating 2. Pre bake part 3. Pre heat part to 75F		
Separation	1. Surface contaminant 2. Too thick of an application	1. Properly degrease prior to coating 2. Pre bake part 3. 1. Add distilled water		
Powdering after cure	1. Cured at too high of a temperature	1. Check oven for proper temperature control		
Solvent removes	1. Insufficient cure 2. Not a solvent it can resist	1. Check oven for proper temperature control		
Water removes	1. Insufficient cure	1. Check oven for proper temperature control		
Dry spray / spots	1. Spray pressure too high 2. Surface too hot 3. Insufficient blending	1. Adjust pressure till a wet coat is achieved 2. Surface should be below 90F 3. Use a dispersion blade to blend		
Orange peel	1. Too thick of an application 2. Insufficient drying time	1. Add distilled water 2. Allow to fully dry before baking		
Won't dry	1.Too cold for water to flash 2.Too humid for water to flash	1. Pre heat part to 75F 2. Add an air flow to drying operation/area		
Dries too fast	1. Too hot of an environment 2. Too thin of an application	1. Add distilled water 2. Use larger nozzle 1.4 MM minimum recommended		
Won't polish	1. Not designed to polish			
Runs	1. Too thick of a coat 2. Sprayed with too much air pressure 3. Sprayed with too large a nozzle. 4. Too much additional water added	1. Adjust spray procedure		