

Trouble Shooting Problems

Below are some of the common reasons for encountering coating problems.

1. Improper Surface Preparation

A. Wrong abrasive or grit size. A hard sharp abrasive blast media **MUST** be used. **DO NOT** use glass bead, plastic media or soft media's such as walnut shells etc. If the wrong media is used the coating may partially or fully delaminate.

B. Oils, Dirt, Debris or other surface contaminants have not been completely removed. If the surface is not properly cleaned, the coating can bead up during application or bubble, crack and flake during baking.

C. Oils or other contaminants which are deep within the surface, may need to be driven out by a pre-bake at temperature slightly above the cure temperature. If present during cure they can cause a bond failure.

2. Wrong Line Pressure / Nozzle Size

A. If solvent based coatings are sprayed at too **HIGH** an pressure, the solvents are "flashed" off and the coating goes down flat and rough. If water based coatings are sprayed down with too **LOW** a pressure they will show an orange peel effect and in some instances ball up or delaminate during baking.

B. If the nozzle size is too large the coating will come out in large droplets and may not flow out properly or too thick of a film may be laid down. This may lead to a rough or an orange peel effect and in some instances cracking, flaking or total delamination may occur during baking.

3. Mixing

A. If the coating is not properly dispersed prior to spraying the coating may spray with a rough finish or at times small agglomerations of solids may actually clog the spray nozzle. The end result will be an unsatisfactory finish. To avoid this completely disperse the solids that accumulate at the bottom of the container, do not simply shake the container. A Blender or Ball Mill will work well to do this. Small Ball Mills are available, call for information.

4. Cure Temperature

A. If the cure temperature is too high the coating resin can be burned. If the coating is cured at too low a temperature, a complete cure will not occur. If not cured for the minimum amount of time specified, the coating will not completely

cure. This is the most common problem. Cure time STARTS when the part reaches the required temperature, not just the oven.

5. Environmental

A. Drying is critical to any coating. If the air is too humid a water based coating will not dry. This leads to runs and potentially flaking during cure. If Cermakrome is not full dry before baking, the coating may not polish. If the air is too hot or too dry and cold, a coating may dry too fast and will not flow out properly. Solvent based coatings are less affected but can also dry too fast if the air is hot and dry, leading to an orange peel look or in severe cases a dull, dry finish.

CALL OUR TECHNICAL ASSISTANCE DEPARTMENT AT (972) 775 6130

FOR MORE DETAILED INFORMATION