

Problem	Cause	Remedy
Chipping	<ol style="list-style-type: none"> 1. Powder not fully cured 2. Coating thickness too high 	<ol style="list-style-type: none"> 1. Increase oven temperature, time, or both. 2. Reduce thickness by lowering voltage or reducing spray time.
Cratering	<ol style="list-style-type: none"> 1. Contamination with other powder 2. Inadequate pretreatment of substrate 3. Contaminations with incompatible materials from the spray area 4. Oil or moisture in air lines 	<ol style="list-style-type: none"> 1. Clean the system and start with virgin powder. 2. Check the pretreatment. 3. Check for presence of incompatible materials. 4. Check air lines; install filters if necessary.
Off Color	<ol style="list-style-type: none"> 1. Improper oven exhaust 2. Bake time too long or too short 3. Film thickness too low 4. Oven temperature too high or too low 	<ol style="list-style-type: none"> 1. Check exhaust vent fans. 2. Adjust the conveyor speed, oven temperature, or both. 3. Increase the thickness by raising voltage or increasing spray time. 4. Adjust oven temperature.
Orange peel	<ol style="list-style-type: none"> 1. Warm-up of the coated material too slow or too fast 2. Heat damage to powder 3. Film thickness too low 	<ol style="list-style-type: none"> 1. Check curing cycle and curing oven; if necessary, contact your powder supplier. 2. Replace the powder. 3. Increase the thickness by raising voltage or increasing spray time.
Poor adhesion	<ol style="list-style-type: none"> 1. Inadequate cleaning or pretreatment 2. Undercured powder 3. Film thickness too high 	<ol style="list-style-type: none"> 1. Check pretreatment equipment and chemicals. 2. Increase oven temperature, or increase dwell time in oven. 3. Reduce thickness by lowering voltage or reducing spray time.
Poor Corrosion Resistance	<ol style="list-style-type: none"> 1. Inadequate cleaning or pretreatment 2. Undercured powder 	<ol style="list-style-type: none"> 1. Check pretreatment equipment and chemicals. 2. Increase oven temperature, or increase dwell time in oven.
Poor impact resistance or poor flexibility	<ol style="list-style-type: none"> 1. Undercured powder 2. Poor cleaning or pretreatment 3. Film thickness too high 4. Change in substrate thickness or type 	<ol style="list-style-type: none"> 1. Increase oven temperature, or increase dwell time in oven. 2. Check pretreatment equipment and chemicals. 3. Reduce film thickness by adjusting application equipment. 4. Check substrate with supplier.
Poor pencil hardness or poor abrasion resistance	<ol style="list-style-type: none"> 1. Undercured powder 	<ol style="list-style-type: none"> 1. Increase dwell time in oven.
Poor penetration (Powder won't coat Faraday cage areas, such as holes, grooves, channels, inside corners, and recesses)	<ol style="list-style-type: none"> 1. Poor delivery 2. Poor ground 3. Improper spray pattern 4. Voltage too high or too low 5. Poor gun placement 6. Powder too fine or too coarse 	<ol style="list-style-type: none"> 1. Adjust powder delivery. 2. Check ground. 3. Select proper deflector, or use suitable barrel and cover (consult your equipment supplier). 4. Adjust voltage settings so that powder builds on part edges and leading surfaces don't repel powder from corner. 5. Adjust gun position so that the powder cloud has a direct path to the recess area. 6. Consult your powder supplier.