

## Common Paint Problems with Solutions and Preventions

Problem	Appearance	Cause	Remedy	Prevention
<b>Acid &amp; Alkali Spotting</b>	Irregular shaped pitting, etching or discoloration of paint film	Chemical change occurring from harmful contaminants such as acid rain, tree sap, etc remaining on surface for extended period of time.	<ul style="list-style-type: none"> <li>a. Sand and buff</li> <li>b. Sand and refinish</li> <li>c. If reached metal must be stripped</li> </ul>	<ul style="list-style-type: none"> <li>a. Keep away from contaminated atmosphere</li> <li>b. Wash immediately after contamination</li> </ul>
<b>Bleeding</b>	Discoloration of the surface of the refinish color	<u>Solvent penetration from fresh color dissolves old finish releasing dye that comes to the surface.</u>	<ul style="list-style-type: none"> <li>a. Remove all color coats and refinish.</li> <li>b. Allow surface to cure then isolate with 2K undercoat and refinish</li> </ul>	Apply 2K undercoat or sealer over suspected problem areas before spraying new color
<b>Blistering (Solvent Pop)</b>	<ul style="list-style-type: none"> <li>a. Small pin sized bubbles</li> <li>b. Small swelled areas like a water blister on skin</li> </ul>	<ul style="list-style-type: none"> <li>a. Rust under surface</li> <li>b. <u>Trapped solvent</u></li> <li>c. Moisture in air line</li> <li>d. Prolonged exposure to high humidity</li> </ul>	Sand out blisters or solvent pops and refinish	<ul style="list-style-type: none"> <li>a. <u>Avoid use of fast reducer when temp is high</u></li> <li>b. Allow proper dry time between coats</li> </ul>

Problem	Appearance	Cause	Remedy	Prevention
<b>Blushing*</b>	The finish turns milky immediately or shortly after application	<ul style="list-style-type: none"> <li>a. <u>Fast reducer in high humidity</u></li> <li>b. <u>Unbalanced reducer</u></li> <li>c. Condensation on old surface</li> </ul>	<ul style="list-style-type: none"> <li>a. <u>Add retarder to reducer and recoat</u></li> <li>b. Sand and refinish</li> </ul>	<ul style="list-style-type: none"> <li>a. <u>Use good quality reducer</u></li> <li>b. Keep paint and paint surface room temp</li> <li>c. Use retarder on hot or humid days</li> </ul>
<b>Chalking</b>	Lack of gloss or a powdery surface	<ul style="list-style-type: none"> <li>a. Natural weathering of paint film</li> <li>b. Lack of thorough agitation of paint</li> <li>c. <u>Using paints and solvents of low quality</u></li> </ul>	<ul style="list-style-type: none"> <li>a. Polish to restore gloss</li> <li>b. Sand and refinish</li> </ul>	<ul style="list-style-type: none"> <li>a. Use quality products</li> <li>b. Keep paint surface clean w/ occasional waxing</li> <li>c. Thoroughly agitate all paint materials</li> </ul>
<b>Checking, Crazing, Cracking</b>	<ul style="list-style-type: none"> <li>a. Crowfoot (checking)</li> <li>b. Shattered Glass (crazing)</li> <li>c. Splits or separation (cracking)</li> </ul>	<ul style="list-style-type: none"> <li>a. <u>Using improper reducer</u></li> <li>b. Excessive film thickness</li> <li>c. Insufficient dry time of film</li> <li>d. Extreme temp change</li> </ul>	Remove finish down through checked or cracked area and refinish.	<ul style="list-style-type: none"> <li>a. Allow proper dry time</li> <li>b. Use sealer</li> <li>c. Use compatible products</li> <li>d. Avoid temp change</li> </ul>

Problem	Appearance	Cause	Remedy	Prevention
<b>Dieback (Dull Finish)</b>	<b>Gloss becomes dull as film dries or ages</b>	<ul style="list-style-type: none"> <li>a. <b>Compounding before <u>solvent</u> evaporates/cure</b></li> <li>b. <b>Using poorly balanced <u>reducer</u></b></li> <li>c. <b>No flash time b/t coats</b></li> <li>d. <b>Topcoats applied on wet undercoats</b></li> <li>e. <b>Washing with caustic cleaners</b></li> </ul>	<ul style="list-style-type: none"> <li>a. <b>Allow to cure before polish</b></li> <li>b. <b>Sand and refinish</b></li> </ul>	<ul style="list-style-type: none"> <li>a. <b>Allow proper dry time of all coatings</b></li> <li>b. <b>Use top quality materials</b></li> <li>c. <b>Use well balanced <u>reducer</u></b></li> </ul>
<b>Edge Mapping</b>	<b>Raised or lifted edges in wet or dry paint film that outline sand through or feathered edges</b>	<b><u>Solvent</u> from new topcoat penetrates a <u>solvent</u> sensitive substrate causing a lifting or wrinkling that outlines a feathered edge</b>	<ul style="list-style-type: none"> <li>a. <b>Sand smooth with 400 grit or finer</b></li> <li>b. <b>Isolate affected area w/ 2K primer and refinish</b></li> </ul>	<ul style="list-style-type: none"> <li>a. <b>Use 2K primer or waterborne surfacer over questionable areas.</b></li> <li>b. <b>Avoid sanding through topcoat</b></li> </ul>
<b>Fisheyes**</b>	<ul style="list-style-type: none"> <li>a. <b>Cratering of the wet film</b></li> <li>b. <b>Small craters formed in topcoat</b></li> <li>c. <b>Previous finish can be seen in spots</b></li> </ul>	<ul style="list-style-type: none"> <li>a. <b>Spraying over surfaces that contain silicone or fisheye eliminator</b></li> <li>b. <b>Improper cleaning of old surface</b></li> </ul>	<ul style="list-style-type: none"> <li>a. <b>Add fisheye eliminator and recoat</b></li> <li>b. <b>Wash off paint while wet, clean then recoat</b></li> </ul>	<ul style="list-style-type: none"> <li>a. <b>Clean surface w/ wax &amp; grease remover.</b></li> <li>b. <b>Use fisheye eliminator</b></li> <li>c. <b>Use clean air supply source</b></li> </ul>

Problem	Appearance	Cause	Remedy	Prevention
<b>Lifting</b>	<ul style="list-style-type: none"> <li>a. Raising or swelling of the wet film</li> <li>b. Peeling or dry film</li> </ul>	<ul style="list-style-type: none"> <li>a. Exceeding max flash time during application</li> <li>b. Recoating where clearcoat has insufficient film build</li> </ul>	<ul style="list-style-type: none"> <li>a. Do not exceed max recoat time during application</li> <li>b. Avoid applying excessively wet</li> <li>c. Seal old finishes</li> </ul>	<ul style="list-style-type: none"> <li>a. Allow undercoats to dry fully</li> <li>b. Seal old finished, especially if enamel or lacquer</li> </ul>
<b>Mottling</b>	<p>Streaking of color. Generally associated with metallic colors</p>	<ul style="list-style-type: none"> <li>a. Excessive wetting of paint material</li> <li>b. Improper spray technique</li> <li>c. Unbalanced spray pattern</li> <li>d. Uneven film thickness</li> </ul>	<ul style="list-style-type: none"> <li>a. Back away and increase air pressure for final coat</li> <li>b. <u>Avoid over reducing</u></li> <li>c. Allow base coat to flash and apply low pressure mist coat</li> </ul>	<ul style="list-style-type: none"> <li>a. Avoid excessive film build or wetting</li> <li>b. <u>Do not over reduce</u></li> </ul>
<b>Orange Peel</b>	<p>Paint film having texture resembling skin of an orange</p>	<ul style="list-style-type: none"> <li>a. Wrong temp reducer</li> <li>b. Improper gun setup</li> <li>c. Under reduction or pressure low</li> </ul>	<ul style="list-style-type: none"> <li>a. Sand and buff</li> <li>b. Sand and refinish</li> </ul>	<ul style="list-style-type: none"> <li>a. <u>Proper reduction</u></li> <li>b. Proper gun setup and spray technique</li> </ul>

<b>Problem</b>	<b>Appearance</b>	<b>Cause</b>	<b>Remedy</b>	<b>Prevention</b>
<b>Peeling (Delaminating)</b>	Loss of adhesion or separation of paint film from substrate	<ul style="list-style-type: none"> <li>a. Improper surface prep</li> <li>b. Insufficient flash time exceeding product recoat time</li> <li>c. Insufficient film thickness</li> <li>d. Excessive base coat film thickness</li> </ul>	Remove peeling paint completely and refinish	<ul style="list-style-type: none"> <li>a. Thoroughly clean all substrates</li> <li>b. Follow acceptable refinish procedures w/ compatible materials</li> </ul>
<b>Pin Holes</b>	<ul style="list-style-type: none"> <li>a. Small pin point holes in finish</li> <li>b. Air bubbles raising the film and causing craters when erupted</li> </ul>	<ul style="list-style-type: none"> <li>a. Excessive amount of hardener</li> <li>b. Applying heavy thick coats causing heat buildup producing gas bubbles as product cures</li> </ul>	Sand thoroughly and apply coat of polyester putty	<ul style="list-style-type: none"> <li>a. Mix proper amount of hardener</li> <li>b. Do not exceed manufacturer filler thickness for body filler</li> </ul>
<b>Plastic Filler Bleed-Thru</b>	Discoloration of topcoat color. Usually yellowing appearing on light colors	<ul style="list-style-type: none"> <li>a. Too much hardener</li> <li>b. Applying topcoat before plastic is cured</li> </ul>	<ul style="list-style-type: none"> <li>a. Remove filler patch</li> <li>b. Cure topcoat sand and refinish</li> </ul>	<ul style="list-style-type: none"> <li>a. Use correct amount of hardener</li> <li>b. Allow adequate cure time</li> </ul>

<b>Problem</b>	<b>Appearance</b>	<b>Cause</b>	<b>Remedy</b>	<b>Prevention</b>
<b>Plastic Filler Not Drying</b>	Stays soft after applying	<ul style="list-style-type: none"> <li>a. Insufficient amount of hardener</li> <li>b. Hardener exposed to sunlight</li> </ul>	Scrape off plastic and re-apply	<ul style="list-style-type: none"> <li>a. Add recommended amount of hardener</li> <li>b. Make sure not exposed to sunlight</li> </ul>
<b>Runs &amp; Sags</b>	<ul style="list-style-type: none"> <li>a. Running of wet film in rivulets</li> <li>b. Mass slippage of paint film</li> </ul>	<ul style="list-style-type: none"> <li>a. Over reduction or low air press</li> <li>b. Painting on cold surfaces</li> <li>c. Holding gun too close</li> <li>d. Double coating</li> <li>e. Not adhering to proper flash time b/t coats</li> </ul>	<ul style="list-style-type: none"> <li>a. Wash with solvent and refinish</li> <li>b. After dry sand and refinish</li> <li>c. Sand out and finish polish</li> </ul>	<ul style="list-style-type: none"> <li>a. Mix to directions w/ proper solvent</li> <li>b. Allow paint and substrates to reach room temp.</li> </ul>
<b>Sand Scratches</b>	Visible lines or marks in paint film that follow the direction of the sanding marks	<ul style="list-style-type: none"> <li>a. <u>Using too fast of a reducer</u></li> <li>b. Sanding w/ too coarse grit sand paper</li> <li>c. Refinishing over soft substrates</li> <li>d. <u>Using reducer to clean surface</u></li> </ul>	Sand and refinish	<ul style="list-style-type: none"> <li>a. <u>Select proper reducer for temp</u></li> <li>b. Sand with proper grit sandpaper</li> <li>c. Allow undercoats to fully cure</li> </ul>
<b>Stone Bruises</b>	Small chips of paint missing from an otherwise intact finish	Loss of adhesion due to impact of stones, car doors, etc.	Sand/featheredge the damaged area to remove chips then refinish	Use premium 2K undercoat and topcoat systems

<b>Problem</b>	<b>Appearance</b>	<b>Cause</b>	<b>Remedy</b>	<b>Prevention</b>
<b>Transparency</b>	Original finish or undercoat is visible through top coat or variations in surface color	<ul style="list-style-type: none"> <li>a. <u>Color over reduced</u></li> <li>b. Substrate not uniform color</li> <li>c. Color not stirred or agitated</li> </ul>	Sand and refinish	<ul style="list-style-type: none"> <li>a. <u>Reduce paint according to instructions</u></li> <li>b. Use sealer to provide uniform color</li> </ul>
<b>Wet Spots</b>	Discolored and/or slow drying spots of various sizes	<ul style="list-style-type: none"> <li>a. <u>Reducing paint w/ improper solvent</u></li> <li>b. Excessive heavy undercoat not properly dried</li> <li>c. <u>Sanding with contaminated solvent</u></li> </ul>	Sand or wash off thoroughly and refinish	<ul style="list-style-type: none"> <li>a. Use only h2o as a sanding lubricant</li> </ul>
<b>Wrinkling</b>	<ul style="list-style-type: none"> <li>a. Puckering effect</li> <li>b. Resembles skin of prune</li> </ul>	<ul style="list-style-type: none"> <li>a. <u>Under reduced paint or air pressure too low causing excessive film thickness</u></li> <li>b. <u>Fast reducers</u></li> <li>c. Excessive coats</li> <li>d. Fresh paint subjected to heat too soon</li> </ul>	Break top surface by sanding allowing paint to dry thoroughly. Buff or refinish	<ul style="list-style-type: none"> <li>a. Do not force dry until solvents have flashed off</li> <li>b. Apply as recommended</li> <li>c. <u>Reduce according to directions</u></li> </ul>

**Clean air supply, free of moisture and contaminates, is a necessity for problem free paint application.**

**\* Excessive moisture in airlines \*\* Contaminated airlines**