



Trouble Shooting Guide

This section provides a list of common problems, what causes the problem, and a general list of corrective actions.

Orange Peel: Film that has the physical appearance of an orange peel.



Cause: Film lacks ability to flow smoothly. Rough substrate transmits irregularities to subsequent topcoats.

Corrective Action Checklist:

- Check if defect is on whole unit or in specific area
 - Check other units on line to determine if pattern exists
 - Check for low air pressure
 - Check for under reduction
 - Check for proper film build
 - Check for improper gun distance
 - Check reducing solvent and viscosity
 - Check smoothness of substrate
 - Check if defect is specific to one color
 - Check for excessive temperature
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Dry Spray: A rough, textured surface often confined to a small area.



Cause: Paint lacks ability to flow properly.

Corrective Action Checklist:

- Check if defect is on whole unit or in specific area
- Check other units to see if a pattern exists
- Check if defect is specific to one color or many colors
- Check for proper film build
- Check for excessive air pressure
- Check for improper gun distance
- Check reducing solvent selection and spray viscosity



Sags or Runs: Tiers or curtains of paint on vertical or inclined areas



Cause:

Paint's inability to uniformly hold to a vertical or inclined surface producing excessive build-up.

Corrective Action Checklist:

- Check if defect is on whole unit or in a specific area
 - Check other units to determine if a pattern exists
 - Check if defect is specific to one color or many colors
 - Check for excessive film build
 - Check for excessive fluid delivery
 - Check for improper gun distance (too close)
 - Check solvent selection (too slow)
 - Check for insufficient air pressure
 - Check for excessive application overlap
 - Check for too short flash time
 - Check for low spray room temperature
 - Check temperature of paint
 - Check temperature of unit
 - Check for proper reduction
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Color Match: Finished panels do not match color standard.

Cause:

Variations in application and/or paint materials.

Corrective Action Checklist:

- Check other units on line to determine if a pattern exists
- Check for complete hiding
- Check for variables in spray application.
- Check lines and equipment for contamination from previous color
- Check for improper mixing
- Check for proper agitation
- Check gun pattern
- Check gun distance
- Check equipment setup

Fisheyes: Small rounded indentations that resemble fisheyes.



Cause:

Foreign substances that do not blend with paint.

Corrective Action Checklist:

- Check if defect is on whole unit or in a specific area
 - Check other units to see if a pattern exists
 - Check for oil in air lines and spray equipment
 - Check airborne contamination in spray area
 - Check for possible contamination in paint materials
 - Check for painter contamination, skin oils, perspiration, greasy foods, etc.
 - Check for any oils or contamination that might get into paint or spray area.
 - Check for proper cleaning procedures prior to refinishing
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Dirt: Small bumps deposited in, on, or under the paint film.



Cause:

Foreign particles entering wet paint film.

Corrective Action Checklist:

- Check if defect is on whole unit or in a specific area
 - Check other units to determine if a pattern exists
 - Check paint mixing / filtration process
 - Check spray environment (booth)
 - Check preparation process of unit, tacking, solvent wash, etc.
 - Check painters clothing
 - Check spray equipment
 - Check used paint filters for contamination
 - Check for use of anti-stat wipe or spray products
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Peeling: Topcoat peels off when unmasking.

Cause: Topcoat layer or paint separating because of lack of physical bonding.

Corrective Action Checklist:

- Check if defect is on whole unit or in a specific area
 - Check other units to determine if a pattern exists
 - Check film build-wet and dry.
 - Check for contamination -oil, sanding residue, overspray, water, cleaner residue, etc. on substrate prior to topcoat application.
 - Check for non-sanding or primer surfacer
 - Check for case hardening of substrate
 - Check for poor surface preparation prior to topcoat application.
 - Check for masking tape contacting painted surface
 - Check solvent selection (too fast)
 - Check for thin sealer film builds or no sealer
 - Check for in-compatible products
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Soft Paint: Easy to mar or penetrate film with fingernail



Cause: Insufficient cure of paint film

Corrective Action Checklist:

- Check if defect is on whole unit or in a specific area
 - Check other units to determine if a pattern exists
 - Check for improper film build
 - Check hardener (old, improper, or contaminated)
 - Check for improper mixing ratio
 - Check for improper heat during cure time
 - Check for improper air flow
 - Check flash or dry times
 - Check solvent selection (too fast)
 - Check for excessive humidity
 - Check for cool temperatures
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Die Back: Loss of gloss after application (if using glossy topcoat)

Cause: Improper evaporation of solvent, poor initial cure, or paint not flattened sufficiently.

Corrective Action Checklist:

- Check if defect is on whole unit or in a specific area
- Check other units to see if a pattern exists
- Check for too fast a solvent selection
- Check for cool temperature during cure
- Check for lack of airflow during cure
- Check for improper film build
- Check for improper flash times
- Check for incompatible products
- Check for proper mixing/agitation of product

Solvent Trap (Popping): A "goose pimple" or volcano appearance in paint film which, on close examination, frequently has small holes in the center of the bumps.



Cause: Improper evaporation of solvent from wet paint film during initial cure or force dry.

Corrective Action Checklist:

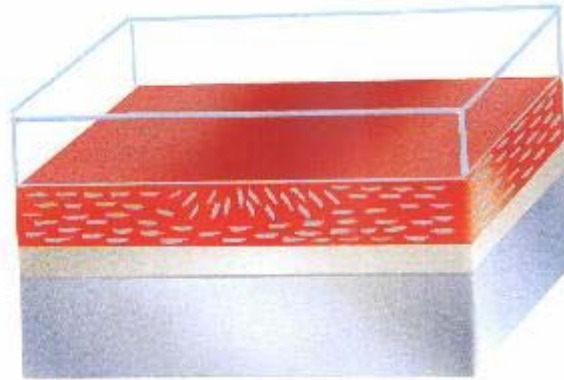
- Check to determine if defect is on entire unit or just in a specific area
 - Check for high temperature in first part of force dry
 - Check other units on line to determine if a pattern exists
 - Check for correct reducing solvent
 - Check if defect is specific to one or many colors
 - Check if defect is most prevalent on horizontal surfaces
 - Check for excessive film builds
 - Check for high fluid delivery
 - Check for low air pressure
 - Check for high viscosity
 - Check for too much overlapping in film build
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Mottling: Spotty, non-uniform, blotchy appearance of metallic paint.

Cause:

Uneven distribution of metallic flakes.

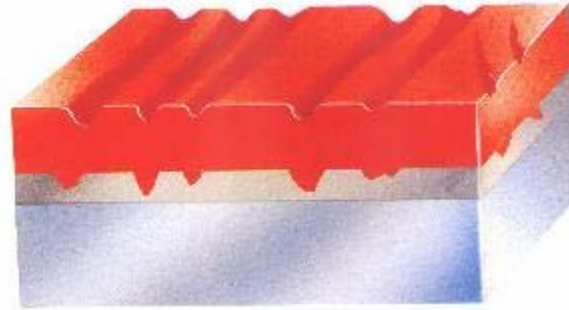


Corrective Action Checklist:

- Check if defect is on whole unit or in a specific area
 - Check other units to see if a pattern exists
 - Check if defect is specific to one color or many
 - Check for excessively high fluid delivery
 - Check atomizing air pressure
 - Check gun pattern
 - Check gun distance
 - Check equipment set-ups (fluid delivery)
 - Check solvent selection
 - Check reduction, viscosity
 - Check flash and dry times
 - Check temperature in spray environment (too cool)
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Sand Scratches & Bullseyes: Objectionable sanding pattern imperfections that show through the finished paint film.



Cause: Imperfections due to soft primer, improper sanding techniques and low topcoat film build. Excessive film builds with improper flash times.

Corrective Action Checklist

- Check if defect is on whole unit or in a specific area
 - Check other units to see if a pattern exists
 - Check if defect is specific to one or many colors
 - Check for correct sandpaper grit (too coarse)
 - Check topcoat film thickness
 - Check for proper feather edge technique (cont. next page)
 - Check for uncured primer
 - Check for poor quality solvent used in undercoats
 - Check flash and dry times
 - Check for excessive primer film builds
 - Check for proper gun technique and atomization
 - Check for under reduced primer surfacer (bridging scratches)
 - Check for sanding before primer surfacer is cured
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Overspray: Paint materials from another unit falling on adjacent surfaces.

Cause: Mis-directed spray droplets or dry spray.

Corrective Action Checklist:

- Check to determine if defect is on entire unit or in specific area
 - Check other units to see if a pattern exists
 - Check for correct booth air balance and flow
 - Check for sequence of panel application
 - Check gun technique
 - Check if defect is specific to one color
 - Check air pressure (too high)
 - Check for over reduction
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