Refinish

ChromaSystem™ Mini Paint Repair Process

Description

The ChromaSystem™ Mini Paint Repair Process is a cosmetic repair process for small damage. It integrates DuPont's innovative ultra-productive products and techniques to enable fast turn around time on repairs within single panels.

The goal of each step in the process is to contain the size of the repair. The recommendations are specific to the type of damage and the location of the damage recognizing the unique challenges for a variety of situations.

The ChromaSystem™ Mini Paint Repair Process features clear coat blending : it is not a warranty repair process and it is not suited to restoring OEM finishes to pre-accident condition. Use the ChromaSystem™ Non-Stop Process for fast lane warranty repairs or repairs to restore finishes to their pre-accident condition.

General Information

Product List

DuPont™ Sontara® PS-3970S™ Solvent Cleaner Pre-saturated Wipes
DuPont™ 2311S™ Sanding Paste
DuPont™ A-3130S™ UVA Primer Surfacer
DuPont™ Sontara® PS-3909S™ Low VOC Pre-saturated Wipes
DuPont™ Sontara® SPS Final Tack
DuPont™ 222S™ Mid-Coat Adhesion Promoter
ChromaBase® Basecoat or ChromaPremier® Basecoat
DuPont™ 7175S™ BaseMaker®
DuPont™ ChromaClear® HC-7776S™
DuPont™ 7765S™ Activator
DuPont™ A-19301S™ ChromaSystem™ Blender
DuPont™ 2250S™ Premium High-Flow Putty
DuPont™ 2270S™ Flexible Putty
DuPont™ A-2320S™ Plas-Stick® Surface Cleaner
DuPont™ A-2330S™ Plas-Stick® Plastic Primer
DuPont™ Sontara® Solvent Wash & Dry Cloth wipes (E-4143)
DuPont™ Sontara® Final Tack tack cloths (E-4145)

Tools

The tools needed to complete a cosmetic repair are miniaturized versions of collision repair tools. They include a mini sander, mini spray gun and a mini polisher. Smaller repairs may call for a mini sanding block, a finessing block and an air brush. Many people in the trade also include a small IR unit to improve productivity. To achieve economy in material usage, the technician will need to mix small amounts of color using a 0.01 gram scale. These tools are readily available in the market. Access to ColorNet® would be a great asset to the technician in executing such repairs.

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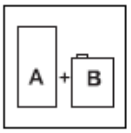
Mix Ratio



Refer to the Product Data Sheets of individual products for detailed information on product mix ratios.

Process

Step 1. Assess Repair

The most important step in the ChromaSystem™ Mini Paint Repair Process is to assess the damage. The primary considerations for a successful small repair are location and size;
A small repair can be completed successfully if the damage is not in the immediate vicinity of an adjacent like colored panel the repair is on a vertical surface.
Small repairs on horizontal surfaces such as hoods or near the top of fenders and the top of doors are difficult to achieve quickly and reliably due to their location.
The repair area should not exceed on square foot.

Repairs requiring over areas larger than one square foot can be completed efficiently with standard collision repair processes.

Step 2. Clean the surface

- Clean painted surfaces thoroughly with mild soap and water.
- Buff panel with polishing compound to remove oxidized layer of the paint finish
- For substrates painted with an OEM finish, wipe surface using DuPont™ Sontara® wipe PS-3970S™

Step 3. Identify the Color Formula

Follow the DuPont™ Color Retrieval process in the ChromaSystem™ Technical Manual to find the best color formula for the repair;

As simple as 1-2-3

1. Identify the manufacturer's paint code on the vehicle.
2. Cross-reference the paint code to the DuPont stock code
3. Look up the formula on ColorNet® and choose the best alternate with the help of VINdicator™ or ChromaVision®.

Mix the color in either activated ChromaBase® basecoat or ChromaPremier® basecoat.

Step 4. Mask

Mask area to be primed.

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Step 5: Sand and Fill

This step of the process is the most critical in containing the size of the repair. Keep the following tips in mind:

- Some repairs areas (i.e. chips) may not require sanding. Clean these areas with a probe to remove surface contaminates or loose materials.
- Keep the sanded area to an absolute minimum.
- Do not sand through layers of clear coat, basecoat and primer if the damage does not extend through to the layer.
- Use a detail sander.
- Most damage in these repairs should not require filling.
    - Where filling is required, sand the repair area with 220 grit paper
    - Clean sanding sludge with PS-3970S™
    - Apply 2250S™ Premium High Flow Putty and sand with 320-grit paper
    - Wipe surface with Sontara® PS-3970S™ and proceed to the priming stage.

Step 6. Prime

Prime with UVA Primer-Surfacer A-3130S™.

Application: Shake the aerosol for 2 minutes after the mixing marble inside is heard and spray to test application. Apply 2 to 3 coats with a 1 minute flash between coats.

Flash/Dry Times

Flash between Coats:	1 minutes.
Flash before UV Cure:	2 minutes
Sanding:	Immediately on cooling.

Cure : Cure primer with a UVA Lamp. Follow curing instruction found in the Technical Data Sheet for A-3130S™.

All standard plastic preparation procedures in the ChromaSystem™ Technical Manual must be followed before applying primer. Refer to the section on Flexible Parts for additional information.

You can elect to use 4004S™ Ultra-Productive Primer Surfacer if you choose not to use a UV cured primer.

Step 7: Final Sand and Surface Preparation

Sand with 400 grit paper on a DA sander.

Finish sand with 600 grit or 800 grit on a DA.

Scuff panel with 2311S™ Sanding Paste and an ultra fine scuffing pad. Use a non-abrasive brush and 2311S™ around moldings. Water rinse and immediately wipe the entire area with a clean damp cloth. Remove sanding sludge and cleaning paste residue with DuPont™ Sontara® wipe PS-3909S™ and wipe dry.

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Step 8. Mask for Topcoat
Mask area for topcoat according to the needs of the topcoat. Mask to 36" for HC-7776S™.

Step 9. Final Wipe

Remove sanding sludge with DuPont™ Sontara® wipe PS-3909S™.

Step 10. Tack

Tack with SPS™ Primary Tack cloth (Part E-4586).

Step 11. Apply Basecoat
Apply 1 coat of the appropriate ValueShade® in basecoat. Allow to flash 5 minutes.
Apply 1 coat of 222S™ Mid-coat Adhesion Promoter to the repair area beyond the primer.

Mix the basecoat with 7160S™ or 7175S™ Basemaker® according to instructions on the mix formula. Apply the basecoat to hiding in the repair area. Use a detail spray gun to minimize repair area. Reduced spray pressure usually helps the blending process.

Blend basecoat for an invisible repair. Follow related procedure found in the ChromaSystemTM Technical Manual.

12. Clear Coat Application
Mix HC-7776S™ according to the directions for use. Apply 2 medium-wet coats HC-7776S™ with a 3 - 5 minute flash between coats. Apply blender A-19301S™ immediately to make an invisible repair. Mist the blender continuously until the clearcoat overspray edge appears to melt away. Excessive wetting of the surface with A-19301S™ can produce poor results.

Flash/Dry Times – HC-7776S™

Air Dry

Flash between Coats:	3 - 5 minutes
Dust Free:	8-10 minutes
Time to Handle (Assemble):	2 hours
Time to Polish:	2 hours
Time to Stripe:	2 hours
Time to Deliver:	2 hours
Time to Decal:	After 24 hours

Additional Information

Filling Small Damage

Most small damage repair will not require filling. Where filling is required for light damage, sand bare metal with 180 grit or 220 grit paper, clean with PS-3970S™, apply 2250S™ Premium High Flow Putty direct to metal and sand with 320 grit paper. Wipe surface with PS-3970S™ and proceed to the priming stage.

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Flexible Parts

The following procedure applies to repairing bare plastic. Refer to the ChromaSystem™ Technical Manual for complete information.

Prime

Clean surface with A-2320S™ Plastic Prep. (Do not use A-2320S™ on ABS or Lexan®)
Prime bare plastic with 1 coat of A-2330S™. Allow to dry 30 minutes before applying primer-surfacer.

Fill Small Damage

Where filling is required for superficial damage on flexible plastic parts, prepare part following the instruction in the ChromaSystem™ Technical Manual. Prime the part as indicate above. Apply 2270S™ Flexible Putty and sand with 320 grit paper. Clean surface with A-2320S™ Plastic Prep. (Do not use A-2320S™ on ABS or Lexan®)

Lexan® is a trademark of GE

Physical Properties

Refer to the MSDS of the individual products.

VOC Regulated Areas

These directions refer to the use of products which may be restricted in VOC regulated areas. Follow usage recommendations in the VOC Compliant Products Chart for your area.

Safety and Handling

For industrial use only by professional, trained painters. Not for sale to or use by the general public. Before using, read and follow all label and MSDS precautions. If mixed with other components, mixture will have hazards of all components.

Ready to use paint materials containing isocyanates can cause irritation of the respiratory organs and hypersensitive reactions. Asthma sufferers, those with allergies and anyone with a history of respiratory complaints must not be asked to work with products containing isocyanates.

Do not sand, flame cut, braze or weld dry coating without a NIOSH approved air purifying respirator with particulate filters or appropriate ventilation, and gloves.

Please visit: www.performancecoatings.dupont.com to view or print an addition copy of this "Technical Product Data" sheet.

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K-15944 Rev 12/06
E-R 4451