

# DuPont™ Cromax® Pro

PAINTER'S GUIDE



Refinish

Innovation You Can Depend On

|  |    |
|--|----|
| Surface Preparation . . . . .                          | 5  |
| Paint Mixing . . . . .                                 | 8  |
| Basic Application & Blending . . . . .                 | 11 |
| Special Techniques . . . . .                           | 15 |
| High Aluminums . . . . .                               | 15 |
| Tri-coats . . . . .                                    | 18 |
| Small Area Repair in Low Visibility Areas . . . . .    | 20 |
| Correcting Defects . . . . .                           | 20 |
| Troubleshooting . . . . .                              | 22 |
| Controller Selection for Variable Conditions . . . . . | 27 |
| Tips for Success . . . . .                             | 29 |

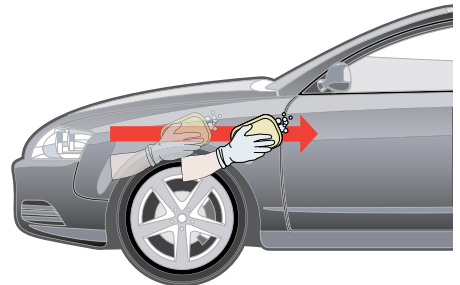
# Surface Preparation

## Cleaning

1. Clean surface with warm water and car wash soap; rinse thoroughly.
2. Clean surface with VOC-compliant surface cleaner.
3. Wipe dry with a separate clean cloth.

### Tips for Success:

- Wipe to loosen and lift contaminants.
- To prevent rag tracking, do not allow cleaner to dry on the surface. If this occurs, simply re-wet and wipe dry.



## Sanding

### When applying Cromax® Pro directly to primer:

Finish-sand as follows:

- For D/A, use P600 with interface pad
- For dry hand sanding, use P800
- For wet hand sanding, use P800

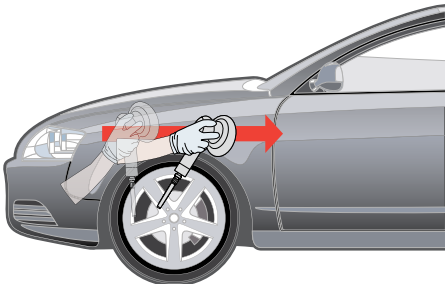
### If using sealer:

Finish-sand primer as follows:

- For D/A, use P400 with interface pad
- For dry hand sanding, use P500
- For wet hand sanding, use P600

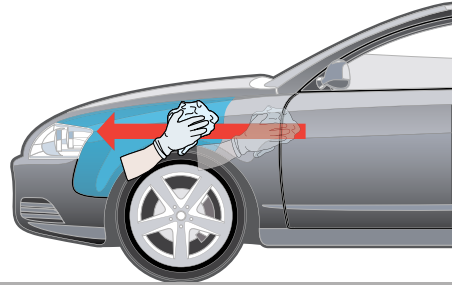
### Tips for Success:

- Use 3M gray scuff pads or equivalent before D/A—and only for edging.
- For best results, always use interface pad when dry sanding.



## Masking, Final Clean and Final Tack

- Use waterborne-compatible tape and coated paper or plastic.
- Final clean surface with VOC-compliant surface cleaner.
- Wipe dry with clean cloth.
- Tack with Sontara® Primary Tack Rag (green), item order number E-4586.



## Paint Mixing

The following recommendations are for normal conditions: 65° F–85° F with 30%–50% Relative Humidity.

- Mix at 20% to 30% for metallics and pearls.
- Mix at 10% to 20% for solid colors.

In dry conditions (less than 30%), use Cromax® Pro WB2043™ Low Humidity Controller.

In humid conditions (greater than 50%), use Cromax® Pro WB2040™ Standard Condition Controller at the higher end of the mixing range.

### Tips for Success:

- For most conditions, use a 1.2–1.3 fluid tip.
- For hot, dry conditions, use a 1.3–1.4 fluid tip.



# Basic Application & Blending

Cromax® Pro repairs follow a "Progressive Application" approach. Treat blends as individual repairs by starting with one repair and working towards the other(s).

The art of blending utilizes natural breaks and style lines to maximize the perception of color match repair. Strive for arced or diagonal blends and avoid straight, hard blends.

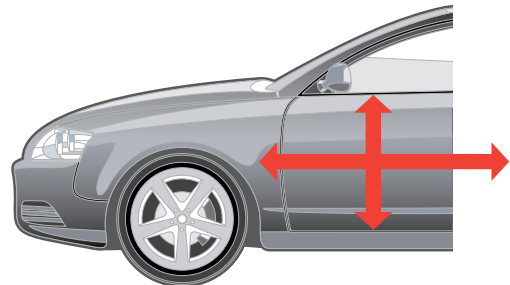
For best results, always use a 75% overlap technique between passes.

## Step 1: Apply Cromax® Pro WB2091™ Blender to entire blend-panel

- Apply blender using closed-coat (4" from work) to achieve a thin, evenly wetted film.
- Maintain a soft, thin edge at repaired or replaced panel.
- Do not allow blender to dry or flash. Move immediately to Step 2.

### Tips for Success:

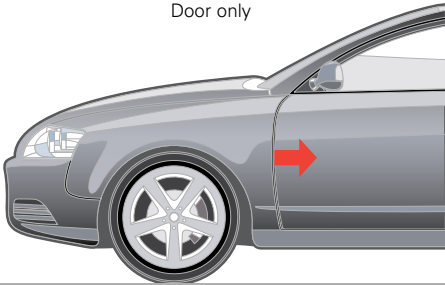
- In humid conditions, add 5% to 10% Cromax® Pro WB2040™ Controller in blender.



**Step 2: Blend color into blender**

- A. Apply medium wet cover coat of Cromax® Pro fading into blender.
- Use 8" gun distance and 75% overlap per pass.
- B. Apply effect coat faded into blender extending beyond cover coat.
- Use 12" gun distance at 75% overlap per pass.
  - Use the same gun speed as the cover coat.

Door only

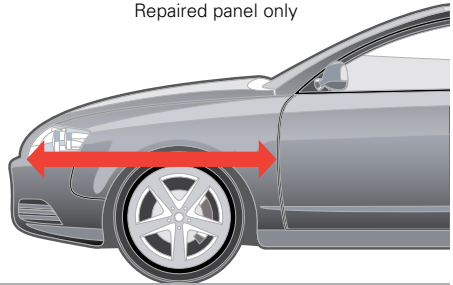


8" gun distance

**Step 3: Panel paint the remainder of the repair**

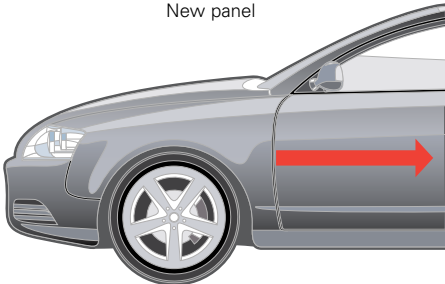
- A. Apply medium wet cover coat over entire panel.
- Use 8" gun distance at 75% overlap per pass.
  - Edge part, if necessary.
- B. Apply effect coat to panel.
- Use 12" gun distance at 75% overlap per pass.
  - Use the same gun speed as the cover coat.
  - Judge panel for uniformity of color and appearance.
  - Flash 1–2 minutes prior to using blowers.

Repaired panel only

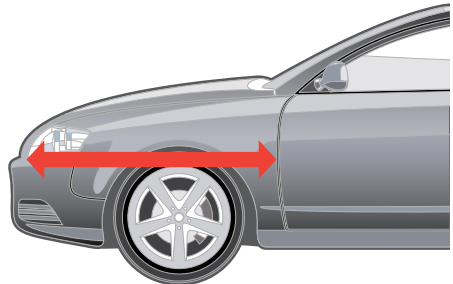


8" gun distance

New panel



12" gun distance



12" gun distance

# Special Techniques

## High Aluminums

### This applies to:

- Colors containing Cromax® Pro WB1032™ and WB1035™ Bright Aluminum Toners.
- Colors containing higher than 50% total aluminum in formula.

The following recommendations are for normal conditions: 65° F–85° F with 30%–50% Relative Humidity.

### Mixing

- Dilute color with 20% Cromax® Pro WB2091™ Blender.
- To diluted color, add 20% to 30% Cromax® Pro WB2040™ Standard Condition Controller.
- In dry conditions (less than 30%), use Cromax® Pro WB2043™ Low Humidity Controller.
- In humid conditions (greater than 50%), use Cromax® Pro WB2040™ Standard Condition Controller at the higher end of the mixing range.
- This mix is your ready-to-spray color.

### Equipment

- In most conditions, use 1.2–1.3 fluid tip.
- In hot, dry conditions, use 1.3–1.4 fluid tip.

### Step 1

- Apply Cromax® Pro WB2091™ Blender to the entire blend-panel.

Note: In high humidity conditions, add 5% to 10% Cromax® Pro WB2040™ into Cromax® Pro WB2091™ Blender.

- Use closed-coat method. This means in close (4" gun distance) using fast gun speed. Maintain a soft, thin edge at repaired or replaced panel.
- Do not allow wet bed to dry or flash. Move immediately to Step 2.





**Step 2**

- Blend color into blender using an outside/in application.
- Apply the 1<sup>st</sup> coat using an effect coat technique, 10" to 12" gun distance, 75% overlap, and carry the furthest distance into the blend.
- Apply the 2<sup>nd</sup> coat using an effect coat technique, 10" to 12" gun distance, 75% overlap, staying inside the 1<sup>st</sup> coat.
- Apply the 3<sup>rd</sup> coat using an effect coat technique, 10" to 12" gun distance, 75% overlap, staying inside the 2<sup>nd</sup> coat.

**Step 3**

- Panel paint the remainder of the repair using standard 1.5 coat application method.
- Using an 8" gun distance, apply a medium wet cover coat over entire panel.
- Edge part, if necessary.
- Using a 12" gun distance, apply the effect coat to panel.
- Flash 1–2 minutes prior to using blowers.



## Tri-coats

The following recommendations are for normal conditions: 65° F–85° F with 30%–50% Relative Humidity.

### Best practice for tri-coat color selection:

- Use Acquire RX™ and read the vehicle as a solid color.
- Use this color as your white ground coat.
- Always apply pearl coat over ground coat on a test panel to check color match.
- Use let-down to determine number of pearl coats needed to match factory effect.

## Mixing

### Ground coat (diluted)

- To a container of mixed ground coat, mix 1:1 with Cromax® Pro WB2091™. Add 5% Cromax® Pro WB2075S™ Activator and 10% to 20% Cromax® Pro WB2040™ Controller by volume.

### Ground coat (full strength)

- To a container of mixed ground coat, add 5% Cromax® Pro WB2075S™ Activator and 10% to 20% Cromax® Pro WB2040™ Controller by volume.

### Midcoat

- To a container of mixed pearl midcoat, add 20% Cromax® Pro WB2040™ Controller.

## Equipment

- Use 1.2–1.3 fluid tip.

## Tri-coat blending process

### Ground coat

#### Step 1: Ground coat application to blend panel with no wet bed

- Using an 8" gun distance, apply diluted ground coat to the furthest point required "to make the blend," while still allowing blending room for the pearl midcoat.

#### Step 2:

- Using an 8" gun distance, apply full strength ground coat, staying within the diluted ground coat to effect full coverage on the blend panel.

## Application to new replacement panel

- Use full strength ground coat color (with 5% Cromax® Pro WB2075S™ Activator and 10% to 20% Controller) for full panel application.
- Using an 8" gun distance, apply two coats of mixed ground coat to entire panel.
- Edge, if necessary.
- Wait 2 minutes, then dry the basecoat.

### Midcoat application

#### Step 3: Application of blender to blend panel

- Apply Cromax® Pro WB2091™ Blender to the entire blend panel.

Note: In high humidity conditions, add 5% to 10% Cromax® Pro WB2040™ into Cromax® Pro WB2091™ Blender.

- Use closed-coat method. This means in close (4" gun distance) using fast gun speed. Maintain a soft, thin edge at repaired or replaced panel.
- Do not allow wet bed to dry or flash. Move immediately to Step 4.

#### Step 4: Application of midcoat to blend panel and replacement panel

- Using an 8" gun distance, apply 1–2 medium wet coats of midcoat fading into blender on blend panel and then onto replacement panel.

Note: One coat versus two coats is determined based on let-down panel.

- Edge, if necessary.
- Using a 12" gun distance, apply another coat of midcoat extending beyond the ground coat on blend panel and then onto replacement panel.
- Flash to dry.

### Small Area Repair in Low Visibility Areas

This procedure may be used for small surface areas of less than 24" diameter.

#### For effect/metallic colors:

To one part color, add one part Cromax® Pro WB2091™ Blender and 10% WB1050™ Brightness Adjuster.

- Apply mixed color in light, successive coats to achieve hiding. Flash dry using blowers or spray gun.
- Apply light control coat.
- Allow to flash dry before applying clearcoat.

#### For solid colors:

To one part color add one part Cromax® Pro WB2091™ Blender.

- Apply mixed color in light, successive coats to achieve hiding. Flash dry using blowers or spray gun.
- Allow to flash dry before applying clearcoat.

### Correcting Defects

Re-repair of basecoat prior to clearcoat:

- For small nib sanded areas (with no cut-through), refer to small damage repair procedures.
- For feather-edged areas, apply sealer to provide a buffer for the feather edge and allow to dry. Then, perform basic blend process.



## TROUBLESHOOTING

| Defect  | Possible Cause   | Solution  |
|---|--|---|
| Flake control and mottling  | 1. Effect coat not applied properly.                     | 1. Maintain 75% overlap and full trigger application; increase distance.  |
|   | 2. Incorrect controller choice for conditions.           | 2. Choose the correct controller for humidity conditions.   |
|   | 3. Not employing dwell time in high humidity conditions. | 3. Ensure dwell time of 30–120 seconds between cover coat and effect coat.  |
| Splashing and dimpling  | 1. Over-application of basecoat.                         | 1. Use proper gun distance and hand speed.  |
|   | 2. Use of incorrect controller.                          | 2. Do not use Cromax® Pro WB2043™ Low Humidity Controller above recommended humidity conditions.                            |
| Cratering in basecoat   | 1. Incorrect container for mixing and storage.           | 1. Only use recommended plastic containers or lined metal cans.   |
|   | 2. Improper surface cleaning.                            | 2. Do not allow surface cleaner to flash dry on surface. Make sure it is wiped until dry.                                   |
| Pinholes after clearcoat—typically in solid color application             | 1. High film build application.                          | 1. Employ correct ValueShade®. Use proper fluid tip and gun distance.   |
|   | 2. Improper use of air blowers.                          | 2. Do not use air blowers too soon. Use appropriate air speed and distance.   |
|   | 3. Excessive shaking of basecoat prior to use.           | 3. Do not use mechanical agitation for basecoat.  |
| Basecoat swelling in feather-edge areas during re-repair before clearcoat | 1. Feather edge not properly sealed.                     | 1. Apply sealer and allow proper dry time.  |
|   | 2. Basecoat applied too soon and too wet.                | 2. Apply medium coats. Allow initial coat-to-flash process to act as a buffer before finishing with the wet-on-wet process. |

(Continued on next page.)

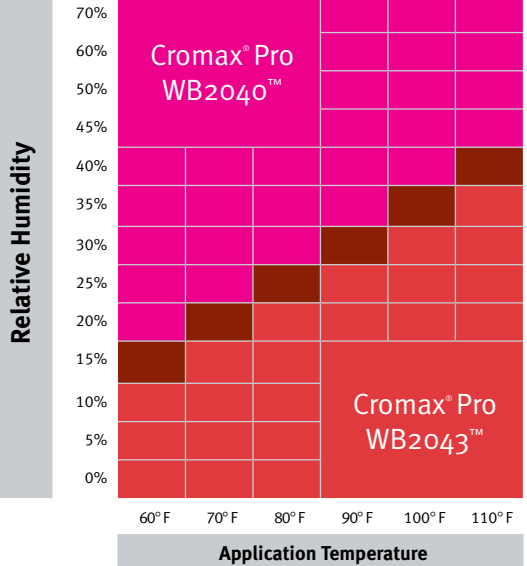
## TROUBLESHOOTING

| Defect                           | Possible Cause  | Solution   |
|----------------------------------|---|--|
| Blistering in clearcoat          | 1. Clearcoat over "damp" or wet basecoat.   | 1. Ensure thorough drying of basecoat.   |
|                                  | 2. Improper surface cleaning resulting from incorrect use of sanding pastes.          | 2. Extend basecoat dry times in high humidity conditions.<br><i>Note: Use of sanding paste is not recommended.</i> |
| Poor adhesion in fresh paint job | 1. High film build application during tri-coat, two-toning and trim-out.              | 1. Use Cromax® Pro WB2075™ Activator in ground coat and first color of two-tone.                                   |
|                                  | 2. Over-application of clearcoat.   | 2. Use proper fluid tip and application process for basecoat and clearcoat.  |
|                                  | 3. Inadequate cure of clearcoat.  | 3. Use correct clearcoat activator for your conditions.  |
| Clearcoat dieback                | 1. Clearcoat applied too soon after basecoat has flashed in high humidity conditions. | 1. Extend dry times on basecoat in high humidity conditions.   |
|                                  | 2. High film build of basecoat.   | 2. Increase booth temperature during drying process by 10° F–15° F above ambient.                                  |
|                                  | 3. Exaggerated dry spray of basecoat.   | 3. Maintain wetted film during application of basecoat.  |
| Dirt in basecoat                 | 1. Improper filtration equipment or process.  | 1. Use 125-micron nylon mesh strainer.<br><i>Note: Use best practices for disposable spray cup systems.</i>        |

# Controller Selection for Variable Conditions



Cromax® Pro Controller Selection Guidelines



Use Cromax® Pro WB2040™ under these conditions.

Consider mixing controllers under these conditions.

Use Cromax® Pro WB2043™ under these conditions.

# Tips for Success

## For extremely high temperatures and high humidity conditions:

1. Use 5%–10% controller in the Cromax® Pro WB2091™ Blender.
2. Use up to 20% controller in solid colors and up to 30% controller in effect colors.
3. Employ a dwell time of 45–90 seconds between blender and color, and again between the 1<sup>st</sup> and 2<sup>nd</sup> coats of color.
4. Use 1.2 fluid tip and increase the gun distance.

## For extremely dry conditions:

1. Use Cromax® Pro WB2043™ Controller instead of Cromax® Pro WB2040™ Controller.







*Copyright © 2010 DuPont. The DuPont Oval Logo, DuPont™, The miracles of science™, and all products designated with TM or ® are trademarks or registered trademarks of E.I. du Pont de Nemours and Company or its affiliates. All rights reserved. E-R5365 K-22558 10/10*

DuPont™ Cromax® Pro

1.800.GET DUPONT (prompt 7)

upgrade2cromaxpro.dupontrefinish.com



*The miracles of science™*