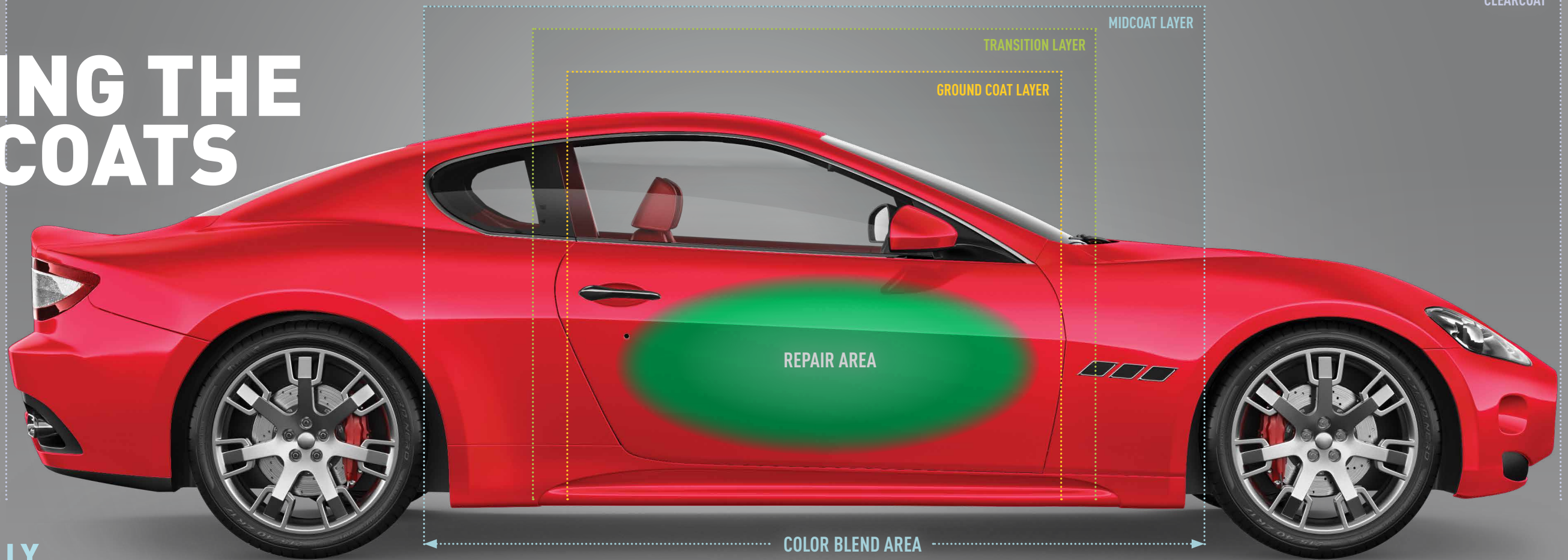


# TAMING THE TRI-COATS



## HOW TO SUCCESSFULLY REPAIR A TRI-COAT FINISH WITH PPG WATERBORNE

More often than ever before, automakers are employing the use of glamorous tri-coat finishes to entice the new vehicle prospect. So naturally collision centers are increasingly facing the need to repair these finishes. Fortunately, a PPG waterborne refinishing system is ideal for creating an invisible blend repair of an OEM tri-coat, provided the proper process is followed.

## THE BLEND REPAIR—STEP BY STEP

### 1. LET-DOWN PANEL

The essential first step for achieving a tri-coat blendable match is to create a let-down panel. It'll help determine the amount of midcoat that will be required to match the original finish. Once completed and dried, compare the panels to the car in daylight or under color-corrected indoor lighting and determine the appropriate number of midcoat layers. (See sidebar for a step-by-step guide on creating a let-down panel).

### 2. SPECTRAL GRAY UNDERCOAT

Using your PPG color retrieval tool, look up the OEM color formula to determine the correct shade of spectral gray undercoat. Apply the undercoat following the directions for the product used.

### 3. GROUND COAT

Apply a ground coat of the basecoat color using the normal coverage coat application technique—spray gun distance 6–8" with 75% overlap. Extend the ground coat just beyond the prepped repair area (see illustration). If the basecoat is a pearl or metallic color, a control coat must also be applied at reduced air pressure.

### 4. TRANSITION LAYER—BLEND REPAIR ONLY

The "transition layer" is designed to step out the blend further to help make a gradual transition from the ground coat to the midcoat. Mix one part of the ready-to-spray (RTS) ground coat color to one part of the RTS midcoat color. Apply as an "effect coat"—90% overlap at 10% reduced air pressure (2–4 psi). Fully dehydrate and then tack before proceeding.

### 5. APPLY MIDCOAT

A midcoat comprising a translucent tinted clear or pearl is key for creating the vivid appearance of a tri-coat. Apply the appropriate number of midcoats as determined by the let-down panel. Use the effect coat spray technique and blend out as necessary until an invisible repair is achieved. Thoroughly dehydrate between coats.

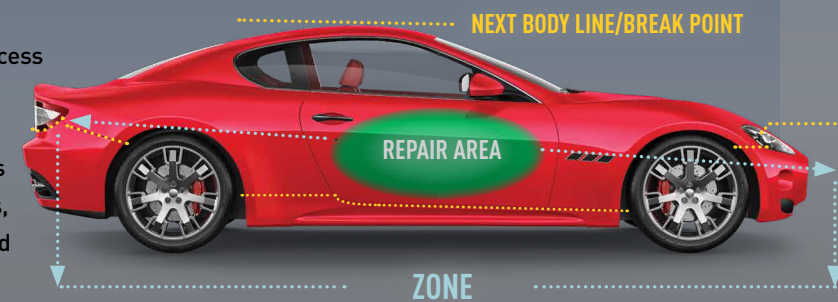
### 6. CLEARCOAT

After the midcoat has flashed, apply two coats of a PPG premium clear, edge to edge.

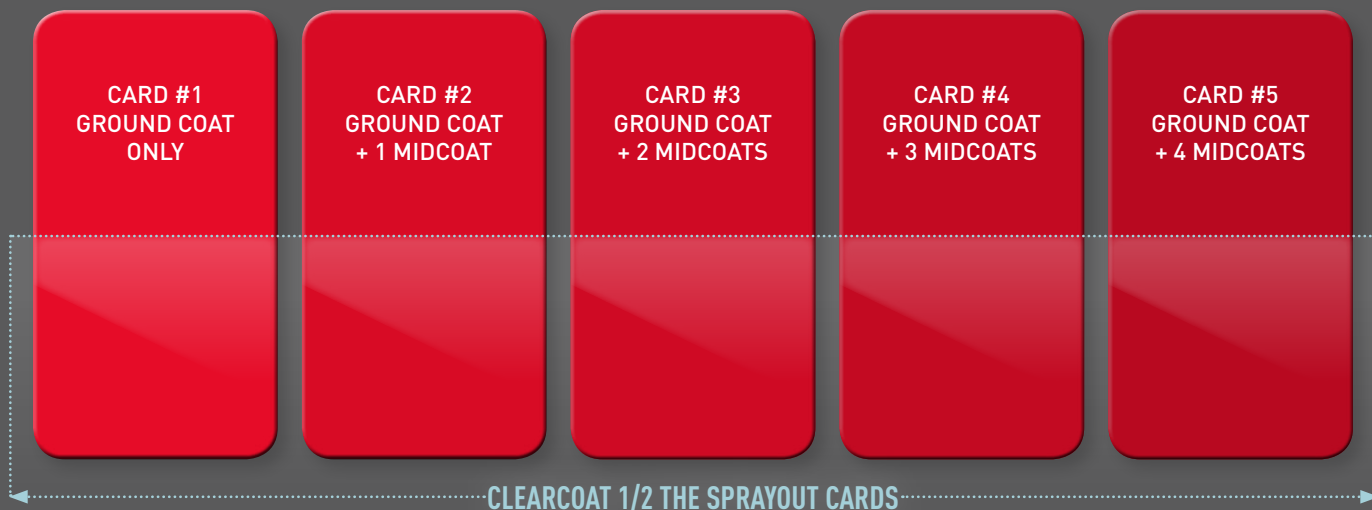
For complete details on tri-coat refinishing, refer to technical bulletin WBTP001, found in the *Technical Bulletins & Product Index* of the waterborne product catalog at [ppgrefinish.com](http://ppgrefinish.com).

### ZONE REFINISHING—NO COLOR BLENDING

Unlike a tri-coat blend repair, this application process does not require a transition coat and should be considered when an existing finish varies in blotchiness and/or opacity in multiple panels on the vehicle. Body lines, feature lines, moldings, etc., may be used to "disguise" or "hide" the blend rather than a typical/traditional color blend.



# CREATING A TRI-COAT LET-DOWN PANEL



CREATING A LET-DOWN TOOL WILL VERIFY THE NUMBER OF MIDCOAT LAYERS REQUIRED FOR THE TRI-COAT VEHICLE COLOR BEING REPAIRED.

**IMPORTANT:** Once you've selected the best match, be sure that the vehicle is sprayed exactly the same way, using the same equipment, viscosity and application technique.

1. Set up 5 PPG sprayout cards with the recommended G-shade or applied with appropriate spectral gray sealer.

2. Apply coats of ground coat until perceived opacity is achieved. Dehydrate between coats. *Apply a final control coat for metallic or pearl colors only.* (The ground coat must match the target ground coat before applying the transition layer or a midcoat.)

3. Cover Card #1 using masking paper. This will be used to reference the ground coat color.

4. If a blend is being performed, apply 1 transition layer as an effect coat to exposed cards. (This layer is not necessary for full-panel, zone or overall refinishing.)

5. Cover each card with separate pieces of masking paper, except for Card #5.

6. Apply 1 midcoat to all exposed cards.

7. Remove masking paper from Card #4 and apply 1 midcoat to all exposed cards.

8. Remove masking paper from Card #3 and apply 1 midcoat to all exposed cards.

9. Remove masking paper from Card #2 and apply 1 midcoat to all exposed cards.

For pearl-containing midcoats, vertically mask off half of each sprayout card and apply a control coat to the exposed areas. (Depending on the vehicle, a control coat may or may not be necessary.)

10. After all basecoat layers have dehydrated thoroughly, mask off the lower half of the cards and apply two coats of a PPG premium clear.

Now, using natural daylight or color-correct lighting, evaluate which card best matches the vehicle color.

Lastly, on the back of the panels make sure to note the formula numbers, viscosity, number of ground- and midcoats applied, spray gun type/setup, air pressure, etc. This thorough documentation will make it easier to replicate the finish in the future.