



Section 5

Priming



Priming: Panel Preparation



Powder Guide Coat.



P320 Abrasive.



Sand from 'out to in'.



Strip cleaning.



Re guide coat.



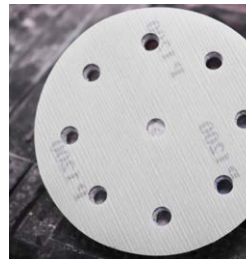
P500.



Use controlled motion.



Clean the repair area



P1000 film disc.



Use controlled motion.



Lubricated weave pad.



Abrade all hard to get to areas.

Priming:

Panel Preparation - Masking



Lubricated Weave Pad.



Ensure all swages and edges are abraded.



Clean the repaired area thoroughly before masking.



Thorough masking of apertures is essential.



Sponge foam is ideal for small gaps/apertures.



Use break lines where possible.



Clean the repaired area again before painting.



Use D8416 / D8421 / D8424 / D8426 1K Aerosol Primer on any small areas of bare substrate.

Priming:

D8092 DELTRON® Wash Etch Primer – Chromate Free

Product Description:

D8092 *Deltron* Wash Etch Primer is a two component, pigmented chromate-free etch. Designed to give good adhesion when used on new and bare metal repaired panels and to promote the adhesion of subsequent paint films. It can be over coated with any current PPG 2-pack Acrylic Primer. This product must always be catalysed with its own reactive thinners.

Best Practice:

- Must be used on any exposed Steel, Galvanized, Aluminium, GRP type substrate.
- Can be sprayed (optimum), rolled or applied via a lint free cloth or sponge.
- Once mixed allow to stand for 10 mins prior to application.
- Must be over-coated with a PPG acrylic primer

The Tech Stuff:

Mixing Ratio: 1 Part Primer : 1 Part Thinner
 Pot Life: 5 Days
 Application: One 100% coat
 Gun Set-up: 1.3-1.6 Gravity feed (Optimal)
 Dry Film: 10-15 microns (Optimal)
 Recoat: 15 mins

These products are for professional use only.

For full technical specification refer to TDS: RLD261V.



Range:

D8092 Wash Etch Primer
 D8293 Reactive Thinner (optimal)
 D833 Slow Reactive Thinner (warm temps:
 +35°C / +70% humidity)

Priming:

SP3006 Adhesion Wipes

Application Process for SPP3006 Adhesion Wipes

SPP3006 Adhesion Wipes are designed for the pre-treatment of bare metal surfaces, enhancing adhesion and corrosion resistance of subsequent primers. Suitable for aluminium, steel, stainless steel, and galvanised or sandblasted metal surfaces. This water-based treatment wipe is chromium-free with VOC <1% and complies with all PPG Primers.

Surface Preparation:

- Sand and clean bare steel, galvanised steel, or aluminium thoroughly.

Application:

- Wipe/apply SPP3006 evenly and thoroughly crosswise.
- Ensure the metal surface remains wet for at least one minute for effective passivation.
- Do not use wipe on different types of metal.

Primer Application:

- Only use 2K acrylic primer; avoid 1K primer, acid primer, polyester products, or epoxy primer.
- Ensure complete coverage of the treated surface.
- Apply 2K primer within 15 minutes after a flash-off time of 5 minutes.

Health, Safety, and Storage:

- Wear appropriate personal protective equipment (protective clothing, safety glasses, gloves).
- Store wipes in a dry location (10-25°C)
- Close the container immediately after removing a fresh wipe.
- Store used wipes in a sealable plastic bag for up to one working day.
- Do not put used wipes back into the container.
- Rewet unused wipes by rolling the container.



Priming:

DP4000 Primer D8501 / D8505 / D8507

Product Description:

DP4000 Primer is designed to deliver a high quality final appearance through a non sand process that is equivalent to a sanded primer. Excellent application, very smooth flow and superb holdout properties are at the core of this products' performance.

Due to superior adhesion characteristics DP4000 negates any sanding of sound, good condition electrocoat.

DP4000 can be recoated directly after 15 minutes, or left or up to 5 days with no major sanding required, meaning new parts can be primed in batches in advance with minimal preparation.

The addition of D8740 Plastic Primer Additive will also allow new bare TPO, PP / EPDM panels to be painted.

Best Practice:

- Always use the correct Greymatic shade for the colour type.
- Option to use G3 on light colours instead of G1 to maximise primer opacity. (Good for priming spot/small repair areas).
- One 100% wet coat is all that is required.
- Optimum appearance and flow is achieved using a dedicated primer gun with a 1.4 fluid tip @ 2bar.
- D8092 is required for all areas of bare metal paying special attention to any vulnerable areas.
- Use D8731 Spot Blender to dissolve the primer edge and smooth its profile prior to topcoat application.

The Tech Stuff:

Mixing Ratio: 4 Parts Primer : 1 Part Hardener : 2 Parts Thinner
Pot Life: 1 hour @ 20°C
Application: One 100% wet coat.
Gun Set-up: 1.4 Gravity feed (Optimal) Sprayed @ 2bar
Drying: 15 mins @ 20°C
Dry Film: 25-35 microns



Range:

D8501 White G1
D8505 Grey G5
D8507 Dark Grey G7
D8302 / D8238 UHS Hardener
D8740 Plastic Primer Additive

These products are for professional use only

For full technical specification refer to TDS: RLD282V.

Priming:

DP4000 - New Genuine Electrocoat Panels (in sound condition)



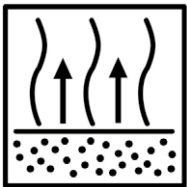
Thoroughly clean the new e-coat panel.



Apply a 100% full closed coat of DP4000 Primer @ 2 bar inlet pressure.



Top Tip: Attention should be given to vulnerable areas!



Flash-Off @ 20°C for 15 mins before topcoating.



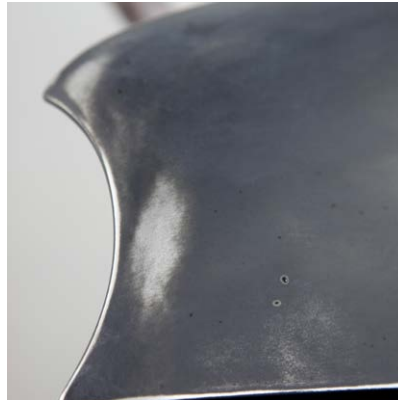
Dry to sand – 30 mins @ 60°C
5 Days - pre-clean prior to top coating.

Priming:

DP4000 - New Genuine Electrocoat Panels (with minor scratch abrasions)



Thoroughly clean the new e-coat panel.



Prep scratches using P500 abrasive.



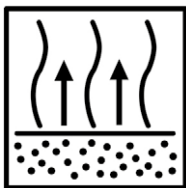
Apply D8092 Chromate Free Etch primer to these areas. Or use SPP3006 Adhesion wipes.



Apply a 100% full coat of DP4000 Primer @ 2 bar inlet pressure.



Top Tip: Attention should be given to vulnerable areas!



Flash-Off @ 20°C
for 15 mins before
topcoating.



Dry to sand –
30 mins @ 60°C
5 Days - pre-clean
prior to top coating.

Priming:

ENVIROBASE® High Performance Application – Internal Repair System (Engine Bay)

Product Description:

Envirobase High Performance Internal Repair System is designed to provide a simple and efficient process for repairs involving specific matt interior colours or low gloss versions of the external colour.

Direct application to electrocoat produces a groundcoat colour to accurately reproduce the original finish on internal parts. At the same time it provides a coloured wet on wet layer that can be topcoated to reproduce the original external finish, thereby removing the need for any undercoating.

Envirobase High Performance Internal Repair system has two modes of use. Internal colour formulas matched to dedicated OE internal colours are provided as part of the PPG colour retrieval system.

Alternatively, any waterborne colour can be converted to Internal Repair mode for use in many repairs where internal colours are low gloss versions of external areas.

Best Practice & Application:

Hand-shake T510 of *Envirobase High Performance waterborne Engine Bay Converter* and tinters for a few seconds before use to ensure that they are thoroughly incorporated.

Mixing Ratios:

Dedicated internal colour

Engine Bay colour:	100 parts
D8260 Activator:	15 parts
T494 Thinner:	10 - 20 parts for solid colours, 20 parts for Aluminium and Pearls 10 parts if using double coats

Converting an existing colour

<i>Envirobase</i> colour:	70 parts
T510 WB Engine Bay converter:	30 parts
Stir thoroughly then add:-	
D8260 Activator:	15 parts
T494 Thinner:	15 - 20 parts for solid colours, 20 parts for Aluminium and Pearls 10 parts if using double coats

Priming:

ENVIROBASE® High Performance Application – Internal Repair System (Engine Bay)

Application Process Steps - Dedicated Internal Colour

For an Internal colour taken from the colour system that includes the WB Engine Bay Converter.

- Select the Internal colour using the Engine Bay Colour Directory or Colour Swatch.
- Using the PAINTMANAGER® or PPG LINQ™ colour retrieval system, mix the *Envirobase* Internal Colour via the RFU feature which includes the addition of T510 WB Engine Bay Converter.
- Stir colour thoroughly before activation.
- Any rub through areas to bare metal should first be primed using D8421 (G5), D8424 (G6) or D8426 (G7) Aerosol 1K primers.
- Apply a light coat of colour to internal edges and sealer areas to maximize coverage. Flash off using air blowers or express systems.
- Apply coats of colour to internal areas and any external panels that need a wet on wet surface for topcoat.
- Use double coats (single coats can be applied if preferred) to reach coverage.
- Flash off using an air blower, Quads etc.
- Apply the topcoat to external panels, as necessary, after 15 minutes (or when fully flashed off) and bake. Internal colours can be overcoated with *Envirobase* High Performance and Clearcoat or DELTRON® Progress UHS DG colour.
- Normally this Internal Repair system does not require flatting and should be directly topcoated. If some dirt inclusions occur, then light flatting / denibbing can be carried out after 20 minutes using P1200 or a dry blend and finishing pad.

These products are for professional use only.

For full technical specification refer to TDS: RLD234V.

Priming:

ENVIROBASE® High Performance Application – Internal Repair System (Engine Bay)

Application Process Steps - Converting an Existing Colour

For an *Envirobase* colour that needs converting to an Internal colour.

- Select the colour using the *Envirobase* Colour Directory or Colour Swatch.
- Using the PAINTMANAGER® or PPG LINQ™ colour retrieval system, mix the *Envirobase* colour via the RFU feature and stir thoroughly.
- Add D8260 Engine Bay additive and stir thoroughly. Continue to activate and thin the Internal colour, as recommended.
- Any rub through areas to bare metal should first be primed using D8421 (G5), D8424 (G6) or D8426 (G7) Aerosol 1K primers.
- Apply a light coat of Internal colour to internal edges and sealer areas to maximize coverage.
- Flash off using air blowers or express systems.
- Apply coats of colour to internal areas and any external panels that need a wet on wet surface for topcoat.
- Use double coats (single coats can be applied if preferred) to reach coverage.
- Flash off using air blowers or express systems.
- Apply the topcoat to external panels, as necessary, after 15 minutes, (or when fully flashed off), and bake. Internal colours can be over coated with *Envirobase* High Performance and Clearcoat.
- Normally this Internal Repair system does not require flatting and should be directly topcoated. If some dirt inclusions occur, then light flatting / denibbing can be carried out after 20 minutes using P1200 or a dry blend and finishing pad.

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For full technical specification refer to TDS: RLD234V.



Greymatic Identification



To identify the optimum Greymatic by specific colour, please refer to the colour formulation.

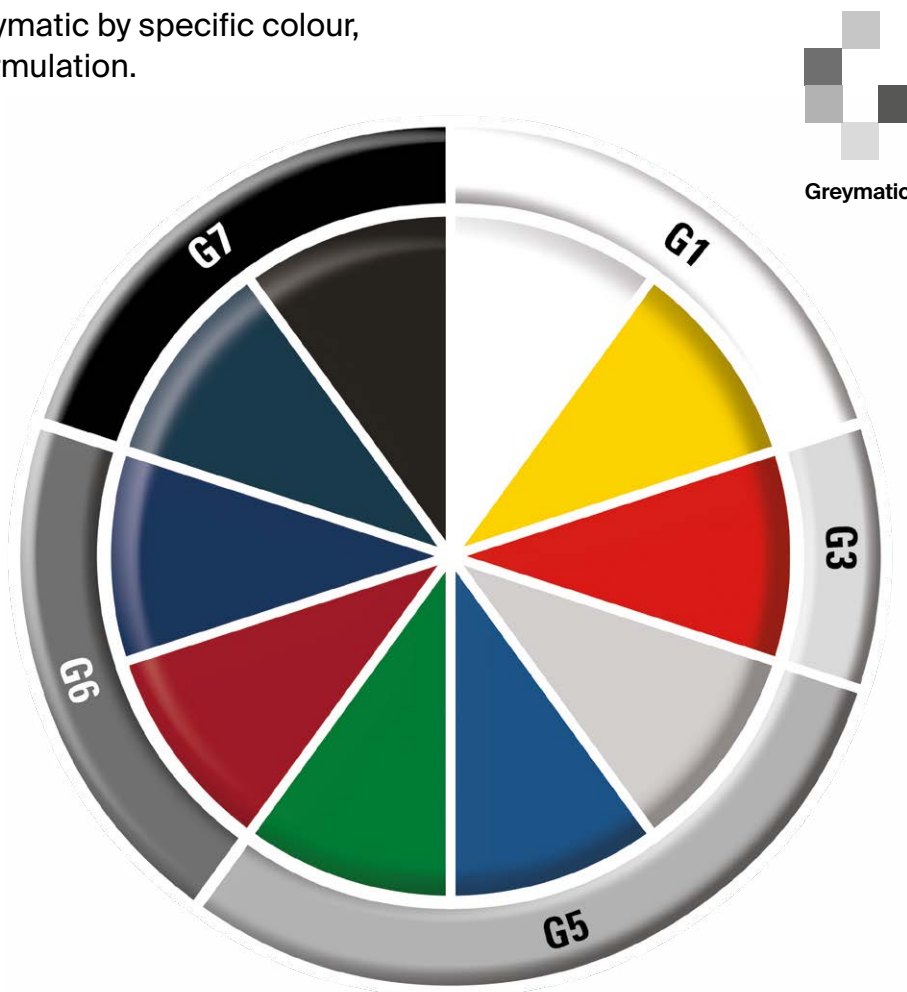
G1
Use under:
Whites
Light Yellows
Light Greens
Light Blues

G3
Use under:
Light Greys
Yellows
Possible alternative for G1 on spot repairs**

G5
Use under:
Medium Greys
Dark Yellows
Greens
Blues
Light/Med Reds

G6
Use under:
Dark Greys
Dark Greens
Dark Blues
Dark Reds
Red Pearls

G7
Use under:
Blacks
Very Dark Greys
Maroon Pearls
Some Dark Red Pearls



**Using G1 when priming spot repair areas could sometimes produce transparency issues. As an alternative it may sometimes be advisable to use G3 in it's place which will help optimise coverage of the primer.

DELTRON® DP7000 Air Dry Primer

	G1	G3	G5	G6	G7
D8561	100%	80%			
D8565		20%	100%	20%	
D8567				80%	100%

Deltron DP5000 2K Primer

	G1	G3	G5	G6	G7
D8521	100%	75%			
D8525		25%	100%	48%	
D8527				52%	100%

Deltron DP4000 2K Primer

	G1	G3	G5	G6	G7
D8501	100%	75%			
D8505		25%	100%	48%	
D8507				52%	100%

% mix by weight



Greymatic

Priming:

Greymatic Identification Guidance

Perceived opacity is best achieved by using a primer that matches the lightness and darkness of the topcoat colour. The PPG Greymatic system is a range of grey shades designed to allow you to use the correct grey shade for the colour. To support the bodyshop in identifying the correct Greymatic shades for application PPG have developed a Greymatic Identification tool.

The purpose of this tool is to help you reduce the amount of basecoat material needed to achieve perceived coverage. Use of the Greymatic Identification Tool will help you to select the correct primer shade, and avoid situations where the incorrect primer shade is used.

'Suggested' colour type options aligned to a Greymatic shade

G1 Use under: Whites Light Yellows Light Greens Light Blues	G3 Use under: Light Greys Yellows Possible alternative for G1 on spot repairs**	G5 Use under: Medium Greys Dark Yellows Greens Blues Light/Med Reds	G6 Use under: Dark Greys Dark Greens Dark Blues Dark Reds Red Pearls	G7 Use under: Blacks Very Dark Greys Maroon Pearls Some Dark Red Pearls
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****Best Practice:**

Using G1 when priming spot repair areas could sometimes produce transparency issues. As an alternative it may sometimes be advisable to use G3 in it's place which will help optimise coverage of the primer.

The recommended Greymatic shade is shown on the formula screen when mixing via PAINTMANAGER® or PPG LINQ™ Colour software.

Priming:

DP5000 High Build Primer D8521 / D8525 / D8527

Product Description:

DP5000 High Build Primer is suitable for a wide range of repair work. Easy to apply and sand, it offers excellent film build and gloss holdout over a wide range of substrates, such as sound original paintwork, bare steel and polyester body fillers.

Greymatic system: combine D8521, D8525 and D8527 primers to create a range of grey shades offering fast, effective topcoat opacity and colour match capabilities, thus reducing topcoat colour consumption, leading to quicker application and process time while maximising production efficiencies and cost savings.

Best Practice:

- Always use the correct Greymatic shade for the colour type
- You must spray using an 'out to in' method: the first coat extended to the outer edge of the repair with subsequent coats sprayed just inside the last.
- Make sure you use the primer immediately after mixing.
- Always mix the primer via the PAINTMANAGER® or PPG LINQ™ Colour software for accurate and efficient volumes.

The Tech Stuff:

Mixing Ratio:	7 Parts Primer : 1 Part Hardener : 1-2 Parts Thinner
Pot Life:	90 mins 20°C
Application:	Three 100% coats. Allow to matt between coats
Gun Set-up:	1.6 Gravity feed (Optimal)
Drying:	20-30 mins @ 60°C / IR 12mins / 3-4 hrs Air dry @ 20°C
Dry Film:	75-130 microns (Optimal)

These products are for professional use only.
For full technical specification refer to TDS: RLD301V.



Range:

- D8521** Light Grey
- D8525** Grey
- D8527** Dark Grey
- D8302** UHS Hardener
- D8717** Fast Thinner
- D8718** Medium Thinner
- D8719** Slow Thinner

Always ensure paint is at the correct temperature. Ensure that paint is warmer than 15°C before application.

Priming:

DP5000 High Build Primer D8521 / D8525 / D8527



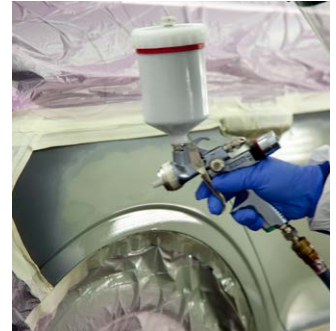
Thorough cleaning with D837 Spirit Wipe.



Remove excess Spirit Wipe with lint free cloth.



Blow off and tack the panel thoroughly.



Apply a 100% coat of D8092 to bare substrate. Or use SPP3006 Adhesive wipes



Apply a 100% first coat to DP5000 to the whole repair area.



Apply a 100% second coat just inside the first.



Apply a 100% third coat just inside the second coat.



If needed a 100% fourth coat can be applied just inside the third coat

After completion of the primer application process allow the booth to clear of overspray. It can now be baked for: 20 mins at 60°C panel temp, IR lamped for 12 mins or air dried for 3-4 hrs at 20°C.

Priming:

DP7000 2K Rapid Primer D8561 / D8565 / D8567

Product Description:

DP7000 Air-dry Primer's outstanding drying properties differentiate this new primer in both Air-dry, IR and bake process. In Air-dry mode, the new DP7000 provides 80-100 microns sandable in 30 mins @20°C under all humidity conditions. This provides a market leading primer surfacer with no reliance on humidity conditions to enhance speed of dry.

DP7000 is easy to apply with excellent sanding properties whilst focusing on the efficiency of the bodyshop. The one-visit application helps in reducing overall process time and the fast air-drying makes this product environmentally sustainable.

Greymatic system: combine D8561, D8565 and D8567 primers to create a range of grey shades offering fast, effective topcoat opacity and colour match capabilities, thus reducing topcoat colour consumption, leading to quicker application and process time while maximising production efficiencies and cost savings.

Best Practice:

- Always use the correct Greymatic shade for the colour type
- Application in 1 light coat followed by 2-4 full coats without flash-off
- Make sure you use the primer immediately after mixing and with the correct thinning option dependant on application mode.
- Always mix the primer via the PAINTMANAGER® or PPG LINQ™ Colour software for accurate and efficient volumes.

The Tech Stuff:

Mixing Ratio:	3 Parts Primer : 1 Part Hardener : 0.5 Parts Thinner
Pot Life:	30 mins @ 20°C
Application:	1 light and 2-4 full coat
Gun Set-up:	1.4 - 1.6mm Fluid Tip
Drying:	30 mins @ 20 degrees / IR 1 min flash followed by 5 min @ 50% efficiency / 5-10 min @ 60°C
Dry Film:	80 - 140 microns

These products are for professional use only.

For full technical specification refer to TDS: RLD308V.



Range:

- D8561** DP7000 Air-dry Primer G1
- D8565** DP7000 Air-dry Primer G5
- D8567** DP7000 Air-dry Primer G7
- D8270** DP7000 Hardener
- D8727** DP7000 Standard Thinner
- D8728** DP7000 High Temp Thinner

Priming:

DP7000 2K Rapid Primer D8561 / D8563 / D8567



Thoroughly clean with D837 Spirit Wipe and remove any excess Spirit Wipe with a lint free cloth. Before spraying thoroughly blow and tack off the panel.



Best Practice:

Apply a 100% coat of D8092 CF Etch to any bare substrate. Or use SPP3006 Adhesion wipes.



Apply a 50% first coat to the outer edges of the whole repair area and flash off for approximately 1 minute or until touch dry.



Apply a 75% second coat followed by another 75% third coat just inside the second as a wet on wet process with no flash off. If required a fourth coat can be applied.

After completing the primer application and all overspray has cleared, the vehicle can be removed from the booth and air dried for **30 minutes @ 20°C**. Infra red lamps can also be used with D8719 Slow Thinner.

Priming:

Roll Priming Mode using DP5000 & DP7000 Primers

DP5000 - designed as a conventional standard process

DP5000	7 parts by vol
D8302	1 part by vol
D8718	1 part by vol
Pot Life:	30 mins @ 20°C

DP7000 - designed as a productivity fast cure process

DP7000	3 parts by vol
D8270	1 part by vol
D8727	0.25 part by vol
Pot Life:	40 mins @ 20°C

Application Best Practice:

The size of the area to be roll primed can be assessed based on the panel shape, the skill level and confidence of the operative.

- 1 The use of a good quality high density foam roller is essential.
- 2 Load the roller from an onion board. Remove excess primer from the roller remembering full paint loading is essential.
- 3 The first coat covers the largest or full repaired area, working an 'out to in' method with all subsequent coats.
- 4 Apply primer from the centre of the repaired area, rolling outwards using light pressure. Do not overwork the primer.
- 5 Use the roller with less primer loading to 'flare' the edges of each coat, reducing the build up of primer on the edge.
- 6 Allow the primer to flow out on the panel; avoid over working, which can leave an uneven surface and reduced build.
- 7 When one coat becomes matt, it is ready for the next coat. Flash-off is approximately 3-5 minutes.
- 8 The application process can be shortened by using an IR lamp to speed up the drying times between coats.
- 9 When an IR lamp is used, flash off takes approx. 1 minute.
NOTE: The surface has to be cool before next coat is applied.

Number of coats:

Apply 3-4 coats to give a film thickness of 75 - 125 microns (3 - 5 thou.).
3 - 5 min flash-off.



Top Tip:

RFU viscosity at 60 seconds gives the best balance between application properties, film build and final appearance.

PPG DP7000 Roll Primer
Process Video



Priming:

Roll Priming Mode using DP5000 & DP7000 Primers



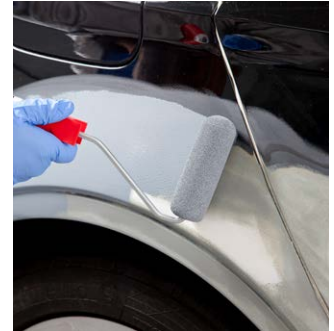
Dab D8092 Etch Primer or use SPP3006 adhesion wipes onto any bare substrate with the end of a roller.



Alternatively use a piece of rolled up foam masking.



Fully load the roller.



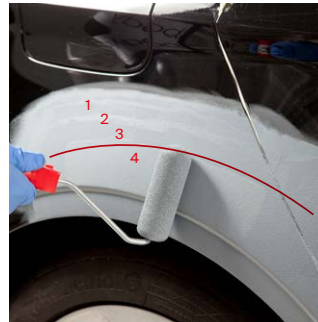
Apply the first coat to the full extent of the repair.



Apply second coat just inside the first.



Apply third coat just inside the second.



Apply a final coat inside the third.



Top Tip and Best Practice:

Always 'flare' the edges of each coat to help soften and reduce film build which will make the sanding process more effective. Ensure the roller is kept well loaded for each coat and that it is not 'overworked' as this could reduce the build per coat.

Priming:

SPP3007 UV Primer

Application Process for SPP3007 UV Primer:

The **SPP3007 UV Primer** is designed for quick and professional repairs, offering ease and efficiency for bodyshops handling spot repairs. This primer is easy to spray and allows sanding just two minutes after drying, making it ideal for small to medium repairs.

Mixing:

- SPP3007 is ready to spray. Mechanically agitate before use.
- Use a black/opaque PVC spray cup to extend the life of the UV paint in the cup.

Application Procedure:

- Apply 2 wet coats.
- Dry film build should be 50-60 microns per coat.
- Do not spray to hiding or exceed more than 2 coats.

Air Pressure and Gun Setup:

- HVLP: 2 bar (0.7 bar at the air cap).
- Compliant: 2 bar at the gun.
- Fluid Tip: 1.0 - 1.2 mm or equivalent.

Flash Time:

- Optional 30 seconds between coats, but no flash before curing.

Cure Process:

- Use Personal Protective Equipment (PPE) to prevent UV radiation damage.
- Cure for 2 minutes using a UV-A LED Light held 10-20 cm away from the panel.
- Continuously move the light over the repair area if larger than 15 cm.
- Ensure UV light source is perpendicular to all panel surfaces for the required time.
- UV primer can also be cured by direct sunlight (10-30 mins depending on UV intensity).

Post-Cure:

- The repair is ready to sand immediately after curing.

