



GLOBAL REFINISH
SYSTEM



June 2013

Product Information

GRS Deltron Matt Clearcoat System

D8115 Matt Clearcoat
D8117 Semi-Gloss Clearcoat

PRODUCTS

Deltron Matt Clearcoat	D8115
Deltron Semi Gloss Clearcoat	D8117
Deltron HS Hardeners	D8237, D8238, D8239
Deltron Thinners	D807, D812, D869
Deltron Low VOC Thinners	D8718, D8719, D8720

PRODUCT DESCRIPTION

The Clearcoats D8115 (Matt) and D8117 (Semi-Gloss) are designed for use over ENVIROBASE[®] High Performance. D8115 / D8117 may be used over Deltron basecoat for repair work not controlled by EU Directive 2004/42.

Deltron Matt Clearcoat System consists of two versatile 2K acrylic urethane clearcoats designed to reproduce a range of low gloss levels for the specialised repairs of vehicles or areas of vehicles originally finished with a low gloss clearcoat over a single or multistage colour basecoat system (e.g. Mercedes full body Matt Finish). To allow for the normal gloss variations - due to colour, model, position of repair on vehicle etc., the actual mix of the two Clearcoats can be varied to match the vehicle to be repaired.

The D8115 / D8117 or mixes of the two may be used over rigid plastics without the need for special additives.

The D8115/D8117 Clearcoats can be used with Deltron HS hardeners D8237 / D8238 / D8239.

These products are for professional use only.

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PREPARATION OF SUBSTRATE

When masking a repair, care should be taken to minimize direct contact of masking tape onto the original Matt finish. Where it is necessary to use masking tape directly on the original finish, the tape must be removed before baking to avoid marking of the original which may not recover.

The Deltron D8115 / D8117 Clearcoats must be applied on top of a clean and dust-free basecoat. The light use of a tack cloth is recommended after the basecoat has flashed off.

Care should be taken to avoid dirt inclusion at all stages. Rectification of dirt inclusion in Matt or Low Gloss finishes is not possible after the final coat of clearcoat.

D8115 / D8117 MIX RATIOS

To allow for normal variations in the gloss level, depending on colour, model, position of repair on vehicle, it is possible to mix the D8115 and D8117 together in any ratio to match the required gloss for a particular repair. The % ratio's quoted below are the best start point for the 5 gloss level ranges.

Gloss Level	FC01	FC02	FC03	FC04	FC05
	Matt e.g. Lamborghini full body Matt Finish		Low Gloss e.g. Mercedes, Smart, BMW, Fiat full body Matt finishes		Semi Gloss e.g. Older Mercedes Plastic side mouldings
Clearcoat	Percentage Parts by Weight (%)				
D8115	100	70	50	30	0
D8117	0	30	50	70	100

The resulting mix is then activated and thinned as below.

Note: Test panels MUST be produced using the intended hardener/thinner/ratio/spraygun combination to check for colour and gloss level against the vehicle to be repaired. D807 / D8718 Thinners are recommended to only be used on small areas or components (Mirror covers etc.)

* HARDENER / THINNER / MIX RATIO SELECTION

Smaller areas / Verticals / Higher Gloss
Below 25°C
Smaller Spraygun tip size



Faster Hardener/Thinner

Larger Areas / Horizontals / Lower Gloss
Above 25°C
Larger Spraygun tip size



Slower Hardener/Thinner

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MIXING RATIO

Mixing ratios with HS Hardeners D8237 / D8238 / D8239

	<u>By Volume</u>	<u>By Weight</u>
D8115 / D8117	3 volumes	See table, Page 5
Hardener*	1 volume	
Thinner*	1.5 volumes	

* Choose HS Hardener / Thinner according to guidance on previous page.

MIXED PRODUCT DETAILS

Potlife at 20°C: 1 - 2 hours depending on hardener/thinner

Spray viscosity at 20°C 15 seconds DIN4.

APPLICATION AND FLASH-OFF



Spraygun set-up: 1.2 - 1.4 mm

Application 1 Full single coat
Flash off until evenly Matt all over
+
1 Full single coat followed immediately by a lighter
(½ coat) cross coat.
Flash off until evenly Matt all over before baking.

Flash off between spray coats 15 - 30 minutes or until fully and evenly matt over the whole repair area.*

Flash off before bake or IR dry 15 - 30 minutes or until fully and evenly matt over the whole repair area.*

***Note:** Allowing the Clearcoat Mix to flash off fully between coats and before bake is important to achieve an even appearance and gloss level over the whole area.

The actual flash off times will depend on the hardener/thinner combination required to achieve the correct gloss effect and could vary between 15 – 45 minutes.

DRYING TIMES

Through dry at 60°C*	30 minutes with D8237 / D8238, 40 minutes with D8239
Through dry at IR (medium wave)	8 - 15 minutes (depending upon colour)



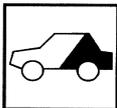
*Bake times are for quoted metal temperature. Additional time should be allowed in the bake schedule to allow metal to reach recommended temperature.

Total dry film build: 45 – 55 µm

REPAIR AND RECOATING



Sanding:	Essential before recoating to ensure good adhesion
- <i>grade wet</i>	P800
- <i>grade dry</i>	P400 - P500



Overcoat / Re-coat time:	
- <i>Force dry at 60°C, or IR</i>	After cooling
- <i>Air drying at 20°C</i>	12 hours

Overcoat with:	Deltron primers Envirobase High Performance or Deltron Basecoat Deltron topcoats
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WEIGHT MIX TABLES FOR D8115 / D8117

GUIDELINES FOR WEIGHT MIXING

Where a specific volume of clearcoat mix is required, this may be best achieved by weight mixing, using the guidelines below. The weights are cumulative - please do **NOT** tare the balance between additions.

Target Volume of RFU Paint required (Litres) @ 3/1/1.5	Weight Clearcoat D8115/D8117 or Blends	Weight HS Hardener D8237/D8238/D8239	Weight Thinner D807/D812/D869
DO NOT TARE THE SCALE BETWEEN ADDITIONS			
0.10 L	57g	75g	99g
0.20 L	113g	150g	197g
0.25 L	142g	187g	246g
0.33 L	187g	247g	325g
0.50 L	284g	374g	493g
0.75 L	425g	561g	739g
1.00 L	567g	748g	985g
1.50 L	851g	1122g	1478g
2.00 L	1135g	1496g	1971g
2.50 L	1418g	1870g	2464g

Target Volume of RFU Paint required (Litres) @ 3/1/1.5	Weight Clearcoat D8115/D8117 or Blends	Weight HS Hardener D8237/D8238/D8239	Weight Thinner D8718/D8719/D8720
DO NOT TARE THE SCALE BETWEEN ADDITIONS			
0.10 L	57g	75g	97g
0.20 L	113g	150g	194g
0.25 L	142g	187g	243g
0.33 L	187g	247g	321g
0.50 L	284g	374g	486g
0.75 L	425g	561g	729g
1.00 L	567g	748g	972g
1.50 L	851g	1122g	1458g
2.00 L	1135g	1496g	1944g
2.50 L	1418g	1870g	2430g

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REPAIR OF FULL BODY MATT FINISHES

BLENDING THE WB BASECOAT + DUAL CLEAR MATT REPAIR PROCESS

Fading out of the Matt Clearcoat itself is not possible because the resulting clearcoat edge cannot be successfully polished to give an invisible repair. However, depending on the colour and the effect of the OEM clearcoat, the WB basecoat layer can be faded out as normal, followed by the Dual Clear Matt Repair Process to the next convenient panel edge, using the steps listed below.

To allow for the normal gloss variations - due to colour, model, position of repair on vehicle etc., the actual mix of the two Matt Clearcoats can be varied to match the gloss level of the vehicle to be repaired. Using the D8135 as the 1st coat in this process will result in a slightly higher gloss than when the D8115/D8117 are used as normal for both coats.

Note: Test panels MUST be produced to check for colour and gloss level against the vehicle to be repaired. It is important to spray these test panels with the ancillaries, application method and conditions that will be used for the actual car.

Activation by Volume or refer to relevant TDS or IT for Weight Activation

D8135	3 volumes	D8115 / D8117	3 volumes
D8217 Hardener	1 volume	Hardener	1 volume
Thinner	0.6 volumes	Thinner	1.5 volumes

Step 1. Prepare the whole panel to be faded onto up to the panel edge or to a break line.
Apply coats of normally thinned WB basecoat to the repaired panels to achieve the required coverage.

Step 2. Blend the basecoat as normal 60% across the fade out panel.

Step 3. 1st coat Clearcoat - Using the D8135 Clearcoat, apply 1 single coat to the whole repair area.
Allow this coat to flash-off for 30 minutes before applying the Matt Clearcoat.

Step 4. 2nd Coat Clearcoat - Use the D8115 / D8117 Matt Clearcoat mix established from the test panels to give to best gloss level match to the area of the vehicle being repaired.

Activate & apply the Matt Clearcoat mix over the whole repair area using the application recommendation given earlier.

PERFORMANCE AND LIMITATIONS

The Gloss levels achieved with this clear may vary depending upon film thickness and application. Low film thickness and dry application will give a Lower Gloss. High film thickness and wet application will give a higher gloss level.

To remove minor dirt inclusions in the final finish, the repair should be fully dried, de-nibbed after cooling and **one** further coat of the Clearcoat Mix applied. Care should be taken to avoid too high clearcoat film thicknesses because the final colour could be affected. In this situation, the repair will require sanding and recoating with Basecoat and Clearcoat.

Dirt removal from the final Matt Finish is not possible.

EQUIPMENT CLEANING

After use, clean all equipment thoroughly with cleaning solvent or thinner.

GENERAL CARE AND MAINTENANCE OF MATT FINISHES

The following guidance on Care and Cleaning of matt finish vehicles is aimed at the car owner, and applies to both the OE and the repair finish.

Particular care must be taken with Matt Finishes to maintain an original even Matt effect.

Guidance for the car owner on maintaining the even matt effect over time

Matt/Gloss finishes can be relatively easily marked with general handling and day to day use (door/bonnet/boot opening, shoe scuffing on entry or exit of vehicle etc.). Care should be taken with these operations because marking or changing of the Matt effect could result.

Care should be taken to avoid spillage of fuel onto the Matt/Low Gloss finishes. Spilt fuel should be removed as soon as possible using the washing guidelines below, to avoid permanent damage or altering of the Matt/Low Gloss effect.

1. In order to keep the Matt surface effect, the use of paint cleaner, abrasives or polishes and wax polishes **must** be avoided. The vehicle **must** not be polished.
2. Polishing will lead to a higher, uneven gloss effect.
3. Cleaning/Polishing with unsuitable materials could alter the Matt effect (generally increased gloss).
4. Automated car washing machines should be avoided. The preferred car washing method is by hand with a soft sponge, neutral soap and lots of water. Too frequent car washing could over a period of time lead to increased and inconsistent gloss levels across a car panel. Washing under direct sunlight should be avoided.
5. Insects and bird residues should be removed immediately. The residues should be soaked in water to soften and/or removed carefully with a high pressure cleaning equipment. In the case of strongly adhered residues, a spray on insect remover should be used prior to washing.
6. Whenever using any type of cleaning fluids with soft sponges or cloths, it is essential not to apply pressure or rub the Matt finish. A gentle wipe/spray on, wipe off technique should be used. Applying pressure will alter the Matt effect and result in an uneven appearance.

HEALTH AND SAFETY

These products are for professional use only, and are not to be used for purposes other than those specified. The information on this TDS is based on present scientific and technical knowledge, and it is the responsibility of the user to take all necessary steps in order to ensure the suitability of the product for the intended purpose. For Health and Safety information please refer to the Material Safety Data Sheet, also available at: www.ppgrefinish.com

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