



GLOBAL REFINISH  
SYSTEM



April 2010

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# Product Information



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## GRS Deltron UHS Rapid Clearcoat D8135

D8135 UHS Rapid Clearcoat

### PRODUCTS

Deltron UHS Rapid Clearcoat	D8135
Deltron UHS Hardener	D8217, D8218
Deltron Thinners	D807, D812, D8718, D8719
Deltron Accelerated Thinner	D8714

For matt, satin and textured finishes:

Deltron Matting Base	D8456 to create a matt or satin appearance
Deltron Texture Additive	D843 to create a fine textured 'suede' effect
Deltron Leather Grain Additive	D844 to create a coarser, more pronounced textured finish

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### PRODUCT DESCRIPTION

Deltron UHS Rapid Clearcoat is a 2K acrylic urethane clearcoat for fast small repairs of vehicles originally finished with clearcoat over a single or multistage colour basecoat system. This Clearcoat is flexible enough to be used over rigid plastic components.

D8135 is designed for use over Envirobase basecoat colour. It may be used in 2 different modes, "One' visit application" or standard 2 coat application. This clearcoat is recommended for a maximum of 3 panels.

D8135 comes with a standard 15 minute bake option at 60°C for use on between 1 and 3 panels. There is also a rapid 10 minute bake option at 60°C for single panel / spot repair and a 30 minute bake option at 60°C, for larger repairs up to an application temperature of 25°C. For optimum final appearance the 15 or 30 minute options are recommended depending on the type of repair.

These products are for professional use only.

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## PREPARATION OF SUBSTRATE

Deltron D8135 Clear must be applied on top of a clean and dust-free Envirobase basecoat.  
The use of a tack rag is recommended.

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## MIXING RATIO

Mixing ratios with UHS Hardener D8217/8218:

	<u>By Volume</u>	<u>By Weight</u>
D8135	3 vol	See table, Page 4/5
UHS Hardener	1 vol	
Thinner*	0.6 vol	

\*Choose Thinner according to application temperature, D8714 Accelerated Thinner is not recommended in combination with D8218 UHS Hardener.

As with all ultra high solids products, cold ready for use paint temperatures can lead to more difficult application and overspray absorption. It is strongly recommended that ready for use product is applied at a temperature greater than 15°C

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## HARDENER AND THINNER SELECTION

<u>Application Temperature</u>	<u>UHS Hardener</u>	<u>Thinner</u>	<u>Bake Schedule</u>
Below 25°C	D8217	D8714	10 minutes @60°C
Below 25°C 15 minutes @ 60°C	D8217	D807/D8718	
Above 25°C	D8217	D812/D8719*	15 minutes @ 60°C
Below 25°C	D8218	D807/D812/D8718/D8719*	30 minutes @ 60°C

\*The choice of hardener and thinner should be made according to application temperature, air movement, size of repair, and the speed of Bake required.

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## MIXED PRODUCT DETAILS

Pot-life at 20°C:	20 - 30 minutes with D8217 / D8714 30 - 40 minutes with D8217 / D807, D812, D8718 or D8719 40 - 50 minutes with D8218 / D807, D812, D8718 or D8719
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Spray viscosity at 20°C 18 - 20 seconds DIN4.

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## APPLICATION AND FLASH-OFF



*Spraygun set-up:*  
Express Single Visit Process  
*Application*

1.2 - 1.4 mm

Apply 1 medium & 1 full coat to give 50-60 microns dry film build. The first coat should be applied to all repair panels before the second coat is applied.

*Flash off between spray coats*

For 1 panel, 2-3 minutes flash off.

*Flash off before bake or IR dry*

For 2 to 3 panels, no flash off is required.

0 – 5 minutes

Conventional Two Coat Process  
*Application*

Apply 2 single coats to give ~60 microns dry film build.

*Flash off between spray coats*

5 – 7 minutes

*Flash off before bake or IR dry*

0 – 5 minutes



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## DRYING TIMES

- Dust free time at 20°C	20 - 30 minutes with D8217 30 - 40 minutes with D8218
- Dry to handle at 20°C	4 hours with D8217 6 hours with D8218
- Through dry at 20°C	12 hours with D8217 16 hours with D8218
- Through dry at 50°C*	20 minutes with D8217 40 minutes with D8218
- Through dry at 60°C*	10 minutes with D8217/D8714 15 minutes with D8217/D807, D812, D8718 or D8719 30 minutes with D8218/D807, D812, D8718 or D8719
- Through dry at IR (medium wave)	8 - 15 minutes (depending upon colour and equipment)



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

### USE OF D8216 Deltron UHS Hardener

This Hardener can be used following the mixing recommendations above, in combination with D8714 Accelerated Thinner, but is only suitable for use below 25°C and on small areas such as small vertical panels or components where a high gloss finish is not required.

Pot Life is 15 minutes so this combination must be applied immediately after mixing and equipment must be cleaned as soon as application is finished.

Use on larger areas may lead to popping caused by the very fast cure rate.

This combination may be baked at 60°C for 10 minutes or air dried for 12 hours.

*Total dry film build:* 45 – 60 µm

*Theoretical coverage:* Assuming 100% transfer efficiency and dry film thickness as indicated: 8 m<sup>2</sup>/l

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## REPAIR AND RECOATING

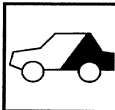


*Sanding:* Essential before recoating to ensure good adhesion

- *grade wet* P800
- *grade dry* P400 - P500

*Overcoat / Re-coat time:*

- *Force dry at 60°C, or IR* After cooling



*Overcoat with:* Deltron primers  
Envirobase  
Deltron topcoats



## MATT, SATIN AND TEXTURED FINISHES (using D807/D812/D8714 Thinners)

To obtain a matt, semi-matt (satin) or textured finish with Deltron D8135 UHS Rapid Clear it is necessary to include matt, or texture additives in the mix.

The additives required and the appropriate weight mix ratios are indicated in microfiches if relevant or in the tables below.

Weights in the following table are cumulative. Do not tare the balance between additions.

Substrate	Appearance	CUMULATIVE WEIGHT MIX GUIDE						
		Volume of RFU Paint (litres)	Weight D8135	Weight D8456	Weight D843	Weight D844	Weight D8217 /D8218	Weight D807 /D812 /D8714**
Rigid	Gloss	1,0 L	638g	-	-	-	870g	984g
	Satin	1,0 L	481g	724g	-	-	899g	985g
	Matt	1,0 L	386g	776g	-	-	916g	986g
	Matt Textured	1,0 L	284g	-	639g	-	743g	957g
	Leather Grain	1,0 L	392g	-	-	708g	850g	967g

## WEIGHT MIX TABLE FOR D8135 (using D807/D812/D8714 Thinners)

Target Volume of RFU Paint required (Litres)	Weight Clearcoat D8135	Weight UHS Hardener D8217/D8218	Weight Thinner D807/D812/D8714**
0.10 L	64 g	87 g	98 g
0.20 L	128 g	174 g	197 g
0.25 L	160 g	218 g	245 g
0.33 L	213 g	291 g	326 g
0.50 L	319 g	435 g	492 g
0.75 L	478 g	653 g	738 g
1.00 L	638 g	870 g	984 g
1.50 L	958 g	1305 g	1476 g
2.00 L	1277 g	1740 g	1968 g
2.50 L	1596 g	2174 g	2460 g

**\*\*Note:** D8714 Deltron Accelerated Thinner is not recommended in combination with D8218 UHS Hardener.



## MATT, SATIN AND TEXTURED FINISHES (using D8718/D8719 Thinners)

To obtain a matt, semi-matt (satin) or textured finish with Deltron D8135 UHS Rapid Clear it is necessary to include matt, or texture additives in the mix.

The additives required and the appropriate weight mix ratios are indicated in microfiches if relevant or in the tables below.

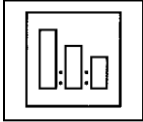
Weights in the following table are cumulative. Do not tare the balance between additions.

Substrate	Appearance	CUMULATIVE WEIGHT MIX GUIDE						
		Volume of RFU Paint (litres)	Weight D8135	Weight D8456	Weight D843	Weight D844	Weight D8217 /D8218	Weight D8718/ D8719
Rigid	Gloss	1,0 L	645g	-	-	-	875g	982g
	Satin	1,0 L	481g	724g	-	-	899g	980g
	Matt	1,0 L	386g	776g	-	-	916g	981g
	Matt Textured	1,0 L	287g	-	641g	-	745g	946g
	Leather Grain	1,0 L	392g	-	-	708g	850g	960g

## WEIGHT MIX TABLE FOR D8135 (using D8718/D8719 Thinners)

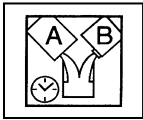
Target Volume of RFU Paint required (Litres)	Weight Clearcoat D8135	Weight UHS Hardener D8217/D8218	Weight Thinner D8718/D8719
0.10 L	65g	88g	98g
0.20 L	129g	175g	196g
0.25 L	161g	219g	245g
0.33 L	213g	289g	324g
0.50 L	323g	438g	491g
0.75 L	484g	656g	736g
1.00 L	645g	875g	982g
1.50 L	968g	1312g	1473g
2.00 L	1291g	1750g	1964g
2.50 L	1613g	2187g	2454g





Mixing by volume

With UHS Hardener 3:1:0.6



Pot Life at 20°C 20 - 30 minutes with D8217 / D8714

30 - 40 minutes with D8217 / D807/D812/D8718/D8719

40 - 50 minutes with D8218 / D807/D812/D8718/D8719

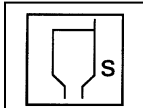
Hardener / Thinner Selection

Below 25°C D8217 / D8714 10 minutes @60°C

Below 25°C D8217 / D807/D8718 15 minutes @ 60°C

Above 25°C D8217 / D812/D8719\* 15 minutes @ 60°C

Below 25°C D8218/D807/D812 30 minutes @ 60°C  
D8718/D8719\*



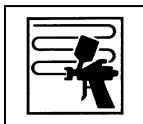
Application Viscosity

18 - 20 seconds DIN4



Spraygun Size

1.2 - 1.4 mm fluid tip



Number of Coats

**Express**

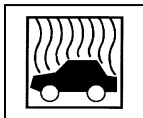
1 light/medium coat, plus 1 full coat. The first coat should be applied to all repair panels before the second coat is applied.

For less than 3 panels, allow 2 - 3 minutes flash off.

For more than 3 panels, no flash off is required.

**Conventional -**

2 single coats, 5 - 7 minute flash-off between coats



Drying Times

Dust free at 20°C

20 - 30 minutes with D8217

30 - 40 minutes with D8218

Through dry at 60°C

10 minutes with D8217 / D8714

15 minutes with D8217 / D807/D812/D8718/D8719

30 minutes with D8218 / D807/D812/D8718/D8719



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## **BEST PRACTICES WITH UHS PRODUCTS**

### **Paint storage conditions**

Keep ready for use paint in good conditions to ensure correct viscosity.

RFU temperature above a minimum of 15°C, and ideally over 18°C.  
This includes paint, hardeners and thinners.

### **Mixing and making ready for use**

Activate accurately, and by weight where ever possible.

Where mixing must be by volume, only use a round and parallel sided mixing container together with the correct mixing stick. If using a measuring container marked in percentages, you must be sure that the percentages give the correct quantities.

Make sure that Hardener and Thinner is mixed in well. High solids or high viscosity products can take a little longer to mix in, so a good practice is to stir Hardener in first, then add thinner before stirring again.

Use mixed product as quickly as possible.

Choose the correct Hardener for the required bake cycle.

Keep to the recommended levels of additives.  
Do not exceed the recommended level of additives such as Flexibilisers.

### **Application technique, process and equipment choices**

Use correct spraygun set ups, and set up the spraygun correctly.

Use a "Single Visit" application wherever possible, following the advice given in the application section.

Check that the spraybooth is operating effectively. If necessary make an oven check to be sure that metal temperature is reached, especially on low down repair areas.

PPG recommendations are based on time at metal temperature, so this should be allowed for in the bake cycle that is set for the job.



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## POLISHING



If polishing is required, i.e. to remove dirt nibs, it is recommended that it is carried out 1 hour after baking.  
Use PPG Specialty Polishing system SPP1001.

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## FADE - OUT REPAIR PROCEDURE

- Apply D8135 UHS Rapid Clear according to the information above
- Take care to minimise the clearcoat edge in the fade-out area
- Melt overspray edge using D8730 Aerosol Fade-Out Thinner or D8429 Rapid Blender.
- Refer to datasheet No: RLD 199V for successful repair.

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## EQUIPMENT CLEANING

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

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## VOC INFORMATION

The EU limit value for this product (product category: IIB.d) in ready to use form is max. 420g/litre of VOC. The VOC content of this product in ready to use form is max. 420g/litre.  
Depending on the chosen mode of use, the actual ready to use VOC of this product may be lower than that specified by the EU Directive code.

**Note:**

Combinations of this product with D8456, D843 or D844 will produce a paint film with special properties as defined by the EU Directive code. The EU limit for these combinations in ready for use form is 840g/litre of VOC. The VOC content of this product in these combinations is max 840g/L.

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## 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](http://www.ppgrefinish.com)

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