



GLOBAL REFINISH
SYSTEM



February 2010

Product Information



GRS Deltron UHS Premium Clearcoat D8137

D8137 UHS Premium Clearcoat

PRODUCTS

Deltron UHS Premium Clearcoat	D8137
Deltron UHS Hardeners	D8216, D8217, D8218, D8219

For matt, satin and textured finishes or painting of flexible substrates:

Deltron Matting Base	D8456 to create a matt or satin appearance
Deltron Plasticiser	D814 to plasticise finishes over a flexible substrate
Deltron Matt Flexibiliser	D819 to create a matt or satin appearance over a flexible substrate
Deltron Texture Additive	D843 to create a fine textured 'suede' effect
Deltron Leather Grain Additive	D844 to create a coarser, more pronounced textured finish

PRODUCT DESCRIPTION

Deltron UHS Premium Clearcoat, is a 2K acrylic urethane clearcoat for repairs of original finishes with clearcoat over a single or multistage colour basecoat system.

D8137 is designed for use over Envirobase basecoat colour. It may be used in 2 different modes, standard 2 coat application, or a "One Visit" application, where 1 medium / continuous coat is followed by a full coat with no flash off between coats.

Deltron UHS Premium Clearcoat may be used over Rigid Plastic substrates that are suitably primed and basecoated.



PREPARATION OF SUBSTRATE

Deltron D8137 Clear must be applied on top of a clean and dust-free Envirobase basecoat. The use of a tack rag is recommended.

MIXING RATIO

Mixing ratios with UHS Hardeners D8216 / D8217 / D8218

	<u>By Volume</u>	<u>By Weight</u>
D8137	3.5 vol	See table, Page 5
UHS Hardener*	1 vol	

- Choose UHS Hardener according to application temperature *
- 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

HARDENER SELECTION

<u>Application Temperature</u>	<u>UHS Hardener</u>	<u>Bake Schedule</u>
18 - 25°C	D8216	15 minutes @ 60°C
25 - 30°C	D8217	25 minutes @ 60°C
Above 30°C	D8218	35 minutes @ 60°C
Above 35°C	D8219	40 minutes @ 60°C

MIXED PRODUCT DETAILS

Potlife at 20°C: 30 - 45 minutes with D8216 hardener
 1 hour with D8217 hardener
 2 hours with D8218 hardener
 2.5 hours with D8219 hardener

Spray viscosity at 20°C 18 - 20 seconds DIN4.



APPLICATION AND FLASH OFF



Spraygun set-up: 1.3 - 1.4 mm

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

Single Visit Process

Application 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.

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

Flash off before bake or IR dry 0 – 5 minutes

DRYING TIMES

- Dust free time at 20°C
20 minutes with D8216,
20 - 30 minutes with D8217,
45 minutes with D8218, 60 minutes with D8219

- Dry to handle at 20°C
2 hours with D8216,
4 hours with D8217,
6 hours with D8218, 8 hours with D8219.

- Through dry at 20°C
8 hours with D8216,
12 hours with D8217,
16 hours with D8218, 24 hours with D8219.

- Through dry at 50°C*
30 minutes with D8216,
50 minutes with D8217,
70 minutes with D8218, 80 minutes with D8219.

- Through dry at 60°C*
15 minutes with D8216,
25 minutes with D8217,
35 minutes with D8218, 40 minutes with D8219.

- 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: 50 – 60 µm

Theoretical coverage: Assuming 100% transfer efficiency and dry film thickness as indicated: 8 m²/l

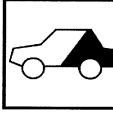


REPAIR AND RECOATING



- Sanding:** Essential before recoating to ensure good adhesion
- *grade wet* P800
 - *grade dry* P400 - P500

Overcoat / Re-coat time:



- *Force dry at 60°C, 70°C or IR* After cooling
- *Air drying at 20°C* 12 hours

- Overcoat with:**
- Deltron Primers
 - Envirobase
 - Deltron topcoats

MATT, SATIN AND TEXTURED FINISHES PAINTING OF FLEXIBLE SUBSTRATES

To obtain a matt, semi-matt(satin) or textured finish with Deltron D8137 UHS Premium Clear it is necessary to include matt, Flexible, or texture additives in the mix. Additives are also required when applying D8137 over a flexible substrate (typically plastics). The additives required and the appropriate volume and weight mix ratios are indicated in microfiches if relevant or in the tables below.

Note: **Rigid** substrates include all metals, fibreglass and GRP
Flexible substrates are all flexible plastic types.

Substrate	Appearance	D8137	D8456	D843	D844	D814	D819	UHS Hardener	Thinner
RIGID	Gloss	761g	-	-	-	-	-	997g	-
	Satin	565g	811g	-	-	-	-	989g	-
	Matt	452g	847g	-	-	-	-	989g	-
	Matt Textured	331g	-	685g	-	-	-	789g	961g
	Leather Grain	452g	-	-	768g	-	-	911g	969g
FLEXIBLE	Gloss	521g	-	-	-	736g	-	900g	968g
	Satin	288g	519g	-	-	-	652g	857g	987g
	Matt	242g	595g	-	-	-	706g	897g	991g
	Matt Textured	234g	-	535g	-	-	643g	826g	978g
	Leather Grain	323g	-	-	549g	-	698g	952g	993g

Note: The use of PPG thinners is required in some ratios to obtain the correct application viscosity. The thinner should be selected to suit the application conditions.



WEIGHT MIX TABLE FOR D8137

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)	Weight Clearcoat D8137	Weight UHS Hardener
0.10 L	76 g	100 g
0.20 L	152 g	199 g
0.25 L	190 g	249 g
0.33 L	251 g	329 g
0.50 L	380 g	498 g
0.75 L	570 g	747 g
1.00 L	761 g	997 g
1.50 L	1141 g	1496 g
2.00 L	1521 g	1994 g
2.50 L	1902 g	2493 g



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

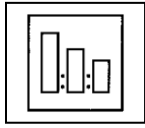
Use correct spraygun set ups, and set up the spraygun correctly.

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.

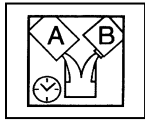




Mixing by volume

With UHS Hardener 3.5:1

Note: No thinner required

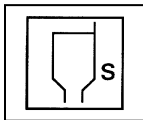


Pot Life at 20°C

Using D8216	30 - 45 minutes
Using D8217	1 hour
Using D8218	2 hours
Using D8219	2.5 hours

Hardener Selection for Application Temperatures

18 - 25°C	D8216 UHS Hardener
25 - 30°C	D8217 UHS Hardener
Above 30°C	D8218 UHS Hardener
Above 35°C	D8219 UHS Hardener



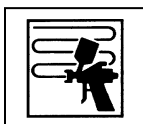
Application Viscosity

18 - 20 seconds DIN4



Spraygun Size

1.3 - 1.4 mm fluid tip



Number of Coats

Conventional -

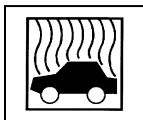
2 single coats, 5 - 7 minute flash-off between coats.

Fast

1 light/medium coat, plus by 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.



Drying Times

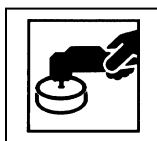
Dust free at 20°C	20 minutes with D8216, 20 - 30 minutes with D8217 45 minutes with D8218, 60 minutes with D8219
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Through dry at 60°C

15 minutes with D8216 25 minutes with D8217 35 minutes with D8218, 40 minutes with D8219
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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.

FADE - OUT REPAIR PROCEDURE

- Apply D8137 UHS Premium Clear according to the information above
- Take care to minimize the clearcoat edge in the fade - out area.
- Melt overspray edge using Aerosol Fade Out Thinner D8730 or Rapid Blender.
- Refer to datasheet No: RLD 199V for successful repair.

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, D814, D819, D843 or D844 will produce a paint film with special properties as defined by the EU Directive code.

In these specific combinations: The EU limit value for this product (product category: IIB.e) in ready to use form is max. 840g/litre of VOC. The VOC content of this product in ready to use form is max. 840g/litre.

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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