



GLOBAL REFINISH
SYSTEM



April 2011

Product Information



UHS Premium Clearcoat D8171

D8171 UHS Premium Clearcoat

PRODUCTS

UHS Premium Clearcoat	D8171
UHS Hardeners	D8302
Thinners	D8718-D8719
Accelerated Thinner	D8714

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

D8171 is an acrylic 2 component clearcoat optimized for use over Envirobase basecoat. It provides a high level of durability and enhanced scratch resistance demanded in the repair of modern OEM finishes whilst providing versatility and ease of use.

D8171 is especially suited to situations where higher bake temperatures are difficult to achieve, and just one Hardener can be used to achieve the majority of applications, thereby reducing stockholding.

PREPARATION OF SUBSTRATE

Deltron D8171 Clear must be applied on top of clean and dust-free Envirobase basecoat.
The use of a tack rag is recommended.

MIXING RATIO

Mixing ratios with UHS Hardener:

	<u>By Volume</u>	<u>By Weight</u>
D8171	3 vol	See table, Page 5
UHS Hardener	1 vol	
Thinner*	0.6 vol	

- Choose Thinner 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 AND THINNER SELECTION

<u>System</u>	<u>UHS Hardener</u>	<u>Thinner</u>	<u>Bake Schedule</u>
Express	D8302	D8714	10 mins at 60°C / 20 mins at 50°C
Standard	D8302	D8718-D8719	30 mins at 50°C / 20 mins at 60°C
Slow - For high Temperatures	D8302	D8719	30 mins at 50°C / 20 mins at 60°C

The choice of thinner should be made according to application temperature, air movement and size of job.

MIXED PRODUCT DETAILS

Potlife at 20°C: 40 minutes with D8302 and D8714 Accelerated Thinner
75 minutes with D8302 hardener

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



APPLICATION AND FLASH OFF



Spraygun set-up:

1.2 - 1.3 mm

Express 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 less than 3 panels, 2-3 minutes flash off.

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

Flash off before bake or IR dry

0 – 5 minutes

DRYING TIMES

Through dry at 50°C*	20 minutes with D8302 + D8714
	30 minutes with D8302 + D8718/19
- Through dry at 60°C*	10 minutes with D8302 + D8714
	20 minutes with D8302 + D8718/19
- Through dry at IR (medium wave)	8 - 15 minutes (depending upon colour) metal temperature 90°C-100°C



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

REPAIR AND RECOATING



Sanding:

Essential before recoating to ensure good adhesion

- *grade wet*

P800

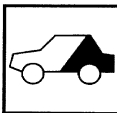
- *grade dry*

P400 - P500

Overcoat / Re-coat time:

- *Force dry , or IR*

After cooling



MATT, SATIN AND TEXTURED FINISHES PAINTING OF FLEXIBLE SUBSTRATES

To obtain a matt, semi-matt (satin) or textured finish with D8171 Premium UHS Clearcoat, it is necessary to include matt, flex or texture additives in the mix. Additives are also required when applying D8171 over a flexible substrate. The additives required and the appropriate volume and/or weight mix ratios are indicated in microfiches if relevant or in the tables below.

Note: The majority of plastics used on cars are considered **Rigid**. These plastics may have some flexibility when painted off the car, but are rigid once mounted. UHS Clearcoats only require the addition of the Plasticiser Additive (See **Flexible** chart below) when painting very flexible plastics, mostly found on older vehicles, e.g. foam type.

Cumulative Mixing by Weight

Do not tare the balance between additions

Substrate	Appearance	D8171	D8456	D843	D844	D814	D819	UHS Hardener	Deltron Thinner
RIGID	Gloss	652g	-	-	-	-	-	883g	990g
	Satin	375g	714g	-	-	-	-	913g	990g
	Matt	348g	777g	-	-	-	-	962g	997g
	Matt Textured	267g	-	590g	-	-	-	732g	949g
	Leather Grain	375g	-	-	672g	-	-	871g	973g
FLEXIBLE	Gloss	545g	-	-	-	646g	-	877g	984g
	Satin	333g	635g	-	-	-	809g	986g	1062g
	Matt	308g	687g	-	-	-	808g	971g	1007g
	Matt Textured	207g	-	508g	-	-	616g	836g	1053g
	Leather Grain	300g	-	-	538g	-	694g	906g	1008g

POLISHING



If polishing is required, i.e. to remove dirt nibs, it is recommended that it is carried out between 1 hour and 24 hours after the quoted drying time.

Denib with P1200, followed by P1500 dry disc.

Lightly damp a 3M Trizact P3000 disc or similar with clean water ensuring that the P1500 scratches are eliminated.

Use PPG Specialty Polishing system SPP1001.

It is important to start with the lambs wool pad at minimum speed, to avoid the surface becoming too hot. If necessary, allow the panel to cool down before continuing to polish.

Complete the process using a hard sponge followed by a soft sponge.



FADE - OUT REPAIR PROCEDURE

- Apply D8171 Premium UHS Clearcoat 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.

WEIGHT MIX TABLE FOR D8171

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 D8171	Weight UHS Hardener	Weight Thinner
0.10 L		65	88	100
0.20 L		130	176	200
0.25 L		163	220	250
0.33 L		216	290	330
0.50 L		328	440	500
0.75 L		490	660	750
1.00 L		650	880	1000
1.50 L		975	1320	1500
2.00 L		1300	1760	2000
2.50 L		1630	2200	2500



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.



EQUIPMENT CLEANING

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

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 D759, 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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