



GLOBAL REFINISH
SYSTEM

Oct 2020

Product Information



D8177 Rapid Performance Clearcoat

PRODUCTS

UHS Rapid Performance Clearcoat	D8177
UHS Hardener	D8307
UHS Hardener Fast	D8308
Accelerator Thinner - Medium	D8757
Accelerator Thinner - Slow	D8758

For textured finishes or painting of flexible substrates:

DELTRON® Plasticiser	D814 to plasticise finishes over a flexible substrate
<i>Deltron</i> Matt Flexibiliser	D819 for textured appearance over a flexible substrate
<i>Deltron</i> Texture Additive	D843 to create a fine textured 'suede' effect
<i>Deltron</i> Leather Grain Additive	D844 to create a coarser, more pronounced textured finish

PRODUCT DESCRIPTION

D8177, the new Rapid Performance Clearcoat, has been developed to improve and surpass D8175. Using the most advanced technology, D8177 provides PPG customers with an incredibly fast clearcoat that can be applied in a single visit, maintain a rapid 5 min bake cycle and also offers a quick Air Dry cycle where appropriate. Thus offering both a significant amount of energy saving and process time improvement, without compromising on performance. A truly flexible product to enhance the bodyshops capabilities.

It uses dedicated hardeners (D8307/08) and has two thinners(D8757/58) to ensure the optimum application in all temperatures.

D8177 is designed for use over ENVIROBASE® High Performance and DELTRON®.GRS basecoats.



PREPARATION OF SUBSTRATE

Apply on top of a clean and dust free ENVIROBASE® High Performance or DELTRON®.GRS basecoats (the use of a tack rag is recommended to remove dust from the basecoat film).

MIXING RATIO

Mixing ratios with UHS Hardener:

	<u>By Volume</u>
D8177	2 vol.
D8307/8	1 vol.
D8757/8*	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.

MIXING BY WEIGHT:

The weights are cumulative - please do **NOT** tare the balance between additions.

Volume of RFU paint required	D8177	D8307/D8308	D8757/D8758
100,0 ml	56,2g	86,6g	101,6g
200,0 ml	112,4g	173,1g	203,2g
300,0 ml	168,7g	259,7g	304,8g
400,0 ml	224,9g	346,2g	406,4g
500,0 ml	281,1g	432,8g	508,0g
600,0 ml	337,3g	519,3g	609,6g
700,0 ml	393,6g	605,9g	711,2g
800,0 ml	449,8g	692,4g	812,8g
900,0 ml	506,0g	779,0g	914,5g
1000,0 ml	562,2g	865,6g	1016,1g

Hardener & THINNER SELECTION

The selection of thinner depends on the temperature application

Hardener and Thinner selection - Recommendation			
Temperature (°C)	< 20°C, and Air-dry	20°C < To < 30°C Air-dry and Bake	> 30°C and Bake
Hardener	D8308	D8307	D8307
Thinner	D8757	D8757	D8758



RFU MIXED PRODUCT DETAILS

Pot-life at 20°C 45 to 60 minutes sprayable time at 20°C.

Viscosity RFU 18-19 seconds DIN4 cup at 20°C.

SPRAYGUN SET UP

Spray Nozzle: 1.2 mm Fluid Tip -

Spray Pressure: 2.0 - 2.2 Bar

APPLICATION AND FLASH OFF



Two Coat Process:

Application

**Apply 1 light/medium & 1 full coat.
The first coat should be applied as a light closed coat.
Second coat is applied as a full coat.**

Flash off between coats

1 Visit application: If only 1 -2 panels; 1 minute flash off.

Flash off before bake or IR

0-5 minutes

Recommended film thickness: 50-60 µm dry film thickness



DRYING TIMES

	20°C	40°C	60°C
Dust free:	20 minutes	-----	-----
Dry to handle:	60 minutes	20 minutes	5 minutes
Polishing:	90 minutes	after cooling	after cooling

IR Drying: Short wave – 2-3 min @ 50% followed by 5-8 minutes @ 100%

*Note: For IR process use only D8307 and D8758.

Drying times will depend on the type of infrared lamp used.



**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

OVERCOATING/RECOATING

Overcoat / Recoat time - If Force dried, after cooling, or after Air-drying.

It is essential to sand before recoating to ensure good adhesion.

Sand with P800 (wet) or P400 (Dry).

Overcoat with - Any PPG 2K primer, or Envirobase HP or DELTRON®.GRS basecoats

POLISHING

After the indicated baking time it is ready to polish after cooling down.

When air dry, ready to polish after 90 min @ 20°C.

If left longer, polishing could result more difficult.



FADE - OUT REPAIR PROCEDURE

- Prepare the fade out area with a 3000 grade soft pad on a DA sander.
- Apply D8177 according to the information above.
- Take care to minimise the clearcoat edge in the fade-out area.
- Immediately melt overspray edge using D8430 Spot Blender.
- It is not recommended to fade out on ½ panels such as doors. It is more efficient to Clearcoat the whole panel.
- After a thorough bake or if necessary application of an IR lamp for 5 mins, sand the edge briefly with 3000 grade soft pad on a DA sander.
- This step is not essential but makes the polishing much easier.
- Polish with normal process system.



PAINTING OF PLASTIC SUBSTRATES - TEXTURED FINISHES

To obtain a textured finish with D8177 Rapid Performance Clearcoat, it is necessary to include flex or texture additives in the mix. Additives are also required when applying D8177 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	D8177	D843	D844	D814	D819	D8307/8	D8757/8
RIGID	Gloss	562,2g	-	-	-	-	865,6g	1016,1g
	Fine Textured	279,8g	612,6g	-	-	-	763,6g	980,0g
	Coarse Textured	361,4g	-	647,1g	-	-	816,1g	988,1g
FLEXIBLE	Gloss	474,4g	-	-	619,2g	-	892,2g	1012,6g
	Fine Textured	210,8g	511,8g	-	-	620,4g	779,7g	986,6g
	Coarse Textured	278,5g	-	498,7g	-	642,2g	842,6g	1000,0g

EQUIPMENT CLEANING

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



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.

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.

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