



GLOBAL REFINISH  
SYSTEM

Dec 2018

# Product Information



## RAPID-BUILD 4:1 Primer

*D8541 White*  
*D8545 Grey*  
*D8547 Dark Grey*  
*D8234/D8237/D8238/D8239 HS Hardeners*  
*D802/D863 MS Hardeners*  
*D8717/18/19/20 Low VOC Thinners*  
*D808/D807/D812/D869 Thinners*

### PRODUCT DESCRIPTION

Rapid-Build 4:1 Primers are a range of 2K primer-fillers. Formulated to high solids with high in-can structure and build - they are particularly suitable for spot repair & panel repair work in the refinish bodyshop.

Rapid-Build 4:1 primers are compatible with a range of PPG DELTRON® hardeners & thinners. Rapid-Build 4:1 primers offer excellent film build, fast drying and good sag resistance. After drying, Rapid-Build primers sand easily and have good holdout over a wide range of substrates such as sound original paintwork, bare steel, polyester body fillers and suitable adhesion primers.

These primers may be directly over coated with *Deltron* UHS Progress or ENVIROBASE® High Performance basecoat.

By combining D8541, D8545 and D8547 (see **GreyMatic** section), the GreyMatic shades can be obtained. In this way, the topcoat consumption and the total repair process time may be optimised.

### PREPARATION OF SUBSTRATE – DEGREASING



Before any preparation work, wash all surfaces to be painted with soap and water. Rinse and allow to dry before degreasing with a suitable PPG substrate cleaner: Ensure all substrates are thoroughly cleaned and dried before and after each stage of the preparation work. Always wipe substrate cleaner off the panel surface immediately, using a clean, dry cloth.

Please see **Deltron Cleaners (RLD63V)** Technical Data Sheet for appropriate substrate cleaning and degreasing products.

## PREPARATION OF SUBSTRATE - PRIMING & SANDING



**Bare Steel** should be lightly abraded and completely rust free before application. Rapid-Build 4:1 primer may be applied directly to small areas of bare steel, but Universal or Epoxy Primers, are recommended on large areas or where optimum adhesion and corrosion resistance is required.



**Other bare metals** should be pre-primed with either Universel or an Epoxy Primer.

**Electropaint** should be sanded with P360 grade paper (dry) or P800 grade (wet).



**Original Paintwork or Primers** should be sanded using P280-P320 grade paper (dry) or P400-P500 grade paper (wet). Spot prime any exposed bare metal with bare metal primer Universel or an Epoxy Primer.

**GRP or Fibreglass** should be sanded using P320 grade paper (dry).



**Polyester Fillers** should be dry sanded using a sequence of grade of paper grades P80-P120-P240

## HARDENER & THINNER SELECTION

<u>Temperature</u>	<u>MS Hardeners</u>	<u>HS Hardeners</u>	<u>Thinner</u>
Below 20°C	D863	D8237	D808/D8717
Up to 25°C	D863/D802	D8234/D8237/D8238	D807/D8717/D8718
25-35°C	D802	D8238/D8239	D812/D8718/D8719
Above 35°C	D802	D8239	D812/D869/D8719

## MIXING



Product is thixotropic - Hand stir before use.



Mixing Ratio:

Rapid-Build 4:1 Primer	4 vol
Hardener	1 vol
Thinner	1 vol

**Note: For accurate activation and thinning, weight mixing is recommended (See tables on Pages 4 and 5)**

## MIXED PRODUCT DETAILS

Pot-life at 20°C: 30-40 min at 20°C.  
**Clean gun immediately after use.**

Spray viscosity  
 DIN4/20°C: 32 - 38 seconds



## SPRAYGUN SETUP

Gravity gun recommended.

Fluid Tip, 1.8 - 1.9 mm  
 Pressure: Follow spraygun manufacturer's recommendations (normally 2 bar / 30 psi)

## APPLICATION GUIDE

Number of coats: Normally 3 coats

Flash off/20°C:  
 - Between coats Until fully matt – normally 3-5 mins  
 - Before stoving Until fully matt (Minimum 5 mins before IR drying)

## DRYING TIME

	Sandable / 20°C	*Bake / 60°C
Using Fast hardeners D8237, D863	1.5 hours	15 mins
Using Standard hardeners D8238, D802	2.5 hours	20 mins
Using Slow hardeners D8239, D8234	3 hours	30 mins

Infra Red Drying Guide time 10-15 minutes

Infrared drying times given require the short wave infrared lamp to be positioned 70-100 cm away from the panel. Allow the primer surfacer to flash off for 5 minutes before drying with the infrared lamp. Drying times will depend on the type of infrared lamp used.

### Notes:

- \* Drying time once substrate reaches 60°C metal temperature.
- Drying times depend on the film thickness.
- Allow panels to cool fully after bake or IR drying cycle before attempting to sand.

## FILM PROPERTIES

Dry film build depends on the application technique and spraygun used.

- 3 Coats expected build 150-200 microns

## SANDING



Finish with the following grades: - P360 or finer: Single layer solid colours (Direct Gloss)  
 P400 or finer: Basecoats



Finish with the following grades: - P600 or finer: Single layer solid colours (Direct Gloss)  
 P800 or finer: Basecoat





## TOPCOATING

After sanding, Rapid-Build 4:1 primer may be overcoated directly with the following topcoats:

*Deltron* UHS Progress Direct Gloss Colour  
*Envirobase* High Performance basecoat colour

## GREYMATICS

The mixtures below should be activated and thinned in the normal way before spraying.

For each of the Rapid-Build 4:1 primer variants specified the following weight mix ratios apply:

	<b>G1</b>	<b>G3</b>	<b>G5</b>	<b>G6</b>	<b>G7</b>
<b>D8541 White</b>	<b>100</b>	<b>75</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>D8545 Grey</b>	<b>--</b>	<b>25</b>	<b>100</b>	<b>45</b>	<b>--</b>
<b>D8547 Dark Grey</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>55</b>	<b>100</b>

## WEIGHT MIXING

<b>Weight Activations for use with HS hardeners (D8237 / D8238 / D8239 / D8234) Ratio 4 : 1 : 1</b>			
	Please note the weights are cumulative. Do not tare or zero scale between additions		
RFU Sprayable Volume ( 4 : 1 : 1 ratio)	Wt. Primer Grams (4 Parts)	Wt. Hardener <b>D8237/8/9/4</b> Grams (1 Part)	Wt. Thinner <b>D8717/8/9/20</b> Grams (1 Part)
0.25 L	279.5	320.8	355
0.5 L	559	641.5	710
0.75 L	838.8	962.3	1065
1.0 L	1118	1283	1427
1.5 L	1677	1924.5	2129.5



Weight Activations for use with MS hardeners (D863, D802) Ratio 4 : 1 : 1			
The weights are cumulative. Do not tare or zero scale between additions			
RFU Sprayable ( 4 : 1 : 1 Vol)	Wt Primer Grams (4 Parts)	Wt Hardener D863/D802 Grams (1 Part)	Wt. Thinner D808/D807/D812/D869 Grams (1 Parts)
0.25 L	279.5	319.9	357.4
0.5 L	559.0	639.8	714.8
0.75 L	838.5	959.8	1072.3
1.0 L	1118.0	1279.7	1429.7
1.5 L	1677.0	1919.5	2144.5

## PRE-THINNED OPTION FOR D8545 – MIXING MACHINE

It is possible to store the larger 2L pack of D8545 Grey on the mixing machine **pre-thinned**. G5 is the most often used Greymatic shade.

To save time in product preparation, thinner can be added to the primer pack & the material stirred on a mixing machine.

To use – only the hardener needs to be added at a 5:1 ratio

1. Take a new 2L tin of D8545 Grey Rapid-Build 4:1 primer and hand stir.
2. Add 0.5L of one of the recommended *Deltron* thinners.  
(There is sufficient space in the 2L can to add thinner)
3. Hand stir to fully incorporate the thinner with the primer.
4. Attach a mixing machine stirring lid to the tin.
5. Place on the mixing machine and stir for 5 mins.
6. Stir twice daily or ideally just before use.  
(Do not leave the pre-thinned product for more than 2 weeks without stirring)

To make Pre-thinned material ready to spray, Mix as follows:



Mixing Ratio: Pre-thinned D8545 Rapid-Build Primer  
Hardener (See Page 2)

Volume	Weight
5 vol	100g
1 vol	13g

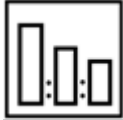
- The pre-thinned mode is also available through PAINTMANAGER® Software.

- It is not possible to combine the pre-thinned D8545 primer with D8541/D8547 to create Greymatics



## FLEXIBLE SUBSTRATES

*Deltron* Plasticiser D814 can be used when Rapid-Build 4:1 Primer is being used on a very flexible substrate.



Rapid-Build 4:1 Primer  
D814  
Hardener  
Thinner

### Mixing Ratio:

3.2 vol  
0.8 vol  
1 vol  
0.5 vol

## LIMITATIONS

Part used cans of hardener must be carefully closed immediately after use.  
All equipment must be perfectly dry and clean.  
Clean sprayguns immediately after use.

## VOC INFORMATION

The EU limit value for this product (product category: IIB.c) in ready to use form is max. 540g/litre of VOC. The VOC content of this product in ready to use form is max. 540g/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.

## 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)

**PPG Industries (UK) Limited.**  
**Auto Refinish**  
**Customer Service and Sales Group,**  
**Needham Road,**  
**Stowmarket,**  
**Suffolk.**  
**IP14 2AD,**  
**England.**  
**Tel: 01449 771775**  
**Fax: 01449 77348**

DELTRON® ENVIROBASE® and PAINTMANAGER® are registered marks of PPG Industries Ohio, Inc. Copyright © 2018 PPG Industries Ohio, Inc. All rights reserved.  
Copyright in the above product numbers that are original is asserted by PPG Industries Ohio, Inc..

