



May 2006

Product Information

GRS Deltron DG

Direct Gloss 2-Pack acrylic colour

PRODUCTS

Deltron Direct Gloss Tinters	D7xx
Deltron Medium Solids Hardeners	D803, D841, D861
Deltron Accelerated Medium Solids Hardener	D864
Deltron Standard Solids Hardener	D802
Deltron Accelerated Standard Solids Hardener	D863
Deltron Thinners	D808, D807, D812, D869
Deltron DG Fade-out Thinner	D868
Deltron Accelerator	D818

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

Deltron Matting Base	D759 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 DG is a high-performance durable two-pack acrylic urethane topcoat designed for the repair and repainting of direct gloss.

Deltron DG can be accelerated to maintain fast curing at low temperature, or to speed-up process times for small to medium repairs under normal temperature.

In order to accelerate the curing. Accelerated hardeners (D863 - D864) and D818 Accelerator can be used separately or in combination.

D863/D864 hardeners are used as replacement for Standard or MS hardeners in the Deltron mix. D818 Accelerator is an additive which is added to the ready mixed paint or to the thinner.

PREPARATION OF SUBSTRATE



Apply over original stoved finishes or over recommended PPG primers.

Degrease all surfaces to be painted with appropriate PPG substrate cleaner before wet sanding with P600-800 grade paper or dry sanding with P400-500 grade paper.



Wash off residues and dry thoroughly before re-cleaning with appropriate PPG substrate cleaner. See Technical Data Sheet **RLD63 Deltron Cleaners**. The use of a tack rag is recommended.

MIXING RATIOS

1. Mixing ratios with Standard System

	<u>By Volume</u>
DG	2 vol
D802	1 vol
Thinner**	1 vol*

2. Mixing ratios with MS System

	<u>By Volume</u>
DG	3 vol
MS Hardener**	1 vol
Thinner**	1 vol*

* For high build, use 0.5 vol.

** Choose MS Hardener and Thinner according to application temperature

HARDENER AND THINNER SELECTION

<u>Temperature</u>	<u>MS Hardener</u>	<u>Thinner</u>
Up to 18°C	D803 Fast	D808
18°C - 25°C	D841 Medium	D807
Over 25°C	D861 Slow	D812

For exceptional conditions of temperature and humidity (> 35°C / >70%) the use of Very Slow Thinner D869 is recommended.

MIXED PRODUCT DETAILS

	<u>Standard System</u>	<u>MS System</u>
Potlife at 20°C:	6 - 8 hours	6 hours
Spray viscosity at 20°C:	15 seconds DIN4	17 - 18 seconds DIN4

SPRAYGUN SET UP

1.4 - 1.8 mm Fluid Tip - Pressure as per manufacturers recommendations

NUMBER OF COATS

With NS Hardener, apply 1 light coat, followed by 2 full coats, to give a dry film thickness of 45 - 50 microns.

With MS Hardener, apply 1 medium coat followed by 1 full coat, to give a dry film thickness of 55 - 60 microns.

FLASH OFF TIMES

5 minutes between each coat.
10 minutes before stoving / baking.

DRYING TIMES

Dust Free at 20°C	20 minutes with NS Hardener, 30 minutes with MS Hardener
Through dry at 20°C	20 hours with either NS or MS Hardener.
Through dry at 60°C*	30 minutes with either NS or MS Hardener
Infra Red Drying	10 - 15 minutes, depending upon colour.

- Stoving times are for quoted metal temperature. Additional time should be allowed in the stoving schedule, to allow metal to reach recommended temperature.

Drying times may be further reduced by using the GRS Deltron accelerated systems.

See the **Deltron DG Accelerated Systems section of this TDS.**

OVERCOATING / RECOATING

Overcoat / Recoat time - If Force dried, after cooling, or after Air drying at 20°C for 8 hours. It is essential to sand before recoating to ensure good adhesion.

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

Overcoat with - Any PPG 2K primer, GRS Deltron topcoats, or Envirobase.

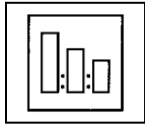
SPOT REPAIR PROCEDURE

- Apply GRS Deltron DG according to the details given above.
- Leave to flash off for 10 minutes at 20°C after the second full coat.
- A suitable quantity of activated and thinned DG colour should be further reduced with GRS Deltron DG Fade Out Thinner D868 at a ratio of 1:3 (1 part activated DG to 3 parts D868)
- Apply this 1:3 mix over the repair area, using a reduced gun pressure to minimise overspray; Spray from the outside of the repair inwards, covering an area that extends beyond the edge of the initial application.
- After force drying or IR buff the repair edges.

Global at a Glance

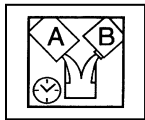
GRS Deltron Direct Gloss Topcoat

DG



Mixing by volume

With NS Hardener - 2:1:0.5 or 2:1:1
With MS Hardener - 3:1:0.5 or 3:1:1

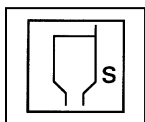


Pot Life at 20°C 6 - 8 hours with D802, D803 or D841
Pot Life at 20°C 3 - 4 hours with D864, or D863

Hardener / Thinner Selection

Up to 18°C	D803 MS Accelerated Hardener D808 - Fast thinner
18 - 25°C	D841 MS Hardener D807 Thinner
Over 25°C	D861 MS Hardener D812 Slow thinner

For exceptional conditions of Temperature and humidity (above 35°C or 70% RH) the use of D869 Very Slow thinner is recommended.



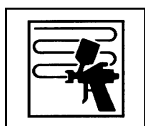
Application viscosity

15 seconds DIN4 with NS hardeners
17 - 18 seconds DIN4 with MS hardeners



Spraygun Size

1.4 - 1.8 mm fluid tip



Number of Coats

1 light coat followed by 2 full coats with NS hardeners
1 medium coat followed by 1 full coat with MS hardeners



Drying Times

Dust Free - 20 minutes with NS hardeners, 30 minutes with MS hardeners
Through dry at 20°C - 20 hours
Through dry at 60°C - 30 minutes

DELTRON DG ACCELERATED SYSTEMS

MIXING RATIOS

Mixing Ratios with Standard Hardener:

	<u>By Volume</u>
DG	2 vol
D863	1 vol
Thinner	1 vol

Mixing Ratios with MS Hardener:

	<u>By Volume</u>
DG	3 vol
D864	1 vol
Thinner	1 vol

For higher build, use 0.5 vol thinner.

HARDENER AND THINNER SELECTION

Choose Thinner according to application temperature:

<u>Temperature</u>	<u>Thinner</u>
5°C - 18°C	D808
18°C - 25°C	D807

The recommended use at low temperatures is as follows:

8°C - 10°C	Use Accelerated hardeners + D818 Accelerator
10°C - 15°C	Use Accelerated hardener
15°C - 20°C	Use D818 Accelerator

D818 Accelerator can either



- be added to the ready for use paint in the proportion of 12ml or 12 mg or 2 capsful per litre of paint.

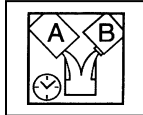
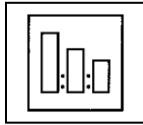
OR

- be used to prepare an "accelerated thinner" by adding 125 ml of D818 in 5L of Deltron thinner.

DRYING TIMES (ACCELERATED SYSTEMS)

	POTLIFE (Hours)	DUST FREE (Minutes)	Tape Free Hours			Stoving Times	
			10°C	15°C	20°C	50°C	60°C
D863	3 - 4	10	7	6	5	30 min	20 min
D864	5	15			8		25 min
D818 + Standard hardener	5	15			8		25 min
D818 + MS hardener (D803)	4	5			8		30 min
D863 + D818	3 - 4	5	6	5	4	25 min	15 min
D864 + D818					6		20 min

These products are for professional use only



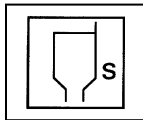
Mixing by volume

With NS Hardener - 2:1:0.5 or 2:1:1
 With MS Hardener - 3:1:0.5 or 3:1:1

Pot Life at 20°C 2 - 3 hours with Accelerated hardeners+ D818.
 Pot Life at 20°C 3 - 4 hours with Accelerated hardeners.
 Pot Life at 20°C 4 - 5 hours with D818 in standard hardener.

Hardener / Thinner Selection

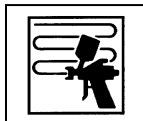
Thinner	5 - 18°C	D808 - Fast thinner
	18 - 25°C	D807 Thinner
Hardener	8 - 10°C	Accelerated hardener + D818
	10 - 15°C	Accelerated hardener
	15 - 20°C	Standard Hardeners + D818



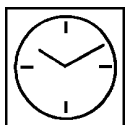
Application viscosity: 15 seconds DIN4 with NS hardeners
 17 - 18 seconds DIN4 with MS hardeners



Spraygun Size 1.4 - 1.8 mm fluid tip



Number of Coats
 1 light coat followed by 2 full coats with NS hardeners
 1 medium coat followed by 1 full coat with MS hardeners



Drying Times

Dust Free 20°C – 5-10 minutes with Accelerated hardener + D818
 10-15 minutes Accelerated hardeners D863/D864
 15 minutes with Standard hardeners + D818

Through Dry 20°C 20 hours

Through Dry 50°C 30 minutes with Accelerated hardeners D863/D864
 25 minutes with Standard hardeners + D818

Through Dry 60°C 15 minutes with D863+D818
 20 minutes with D864+D818
 20 minutes with D863, 25minutes with D864
 25 -30 minutes with Standard hardeners + D818

MATT, SATIN AND TEXTURED FINISHES PAINTING OF FLEXIBLE SUBSTRATES

To obtain a matt, semi-matt (satin) or textured finish with Deltron Direct Gloss, it is necessary to include matt, flex or texture additives in the mix. Additives are also required when applying DG 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 plastic types except GRP

<u>Substrate</u>	<u>Appearance</u>	<u>DG</u>	<u>D759</u>	<u>D843</u>	<u>D844</u>	<u>D814</u>	<u>D819</u>	<u>MS Hardener</u>	<u>Deltron Thinner</u>
<u>RIGID</u>	Gloss	3 vol	-	-	-	-	-	1 vol	1 vol
	Satin	3 vol	1.5 vol	-	-	-	-	1.5 vol	1 vol
	Matt	3 vol	3 vol	-	-	-	-	1.5 vol	2 vol
	Matt Textured	3 vol	-	3 vol	-	-	-	1.5 vol	2 vol
	Leather Grain	3 vol	-	-	1.5 vol	-	-	1.5 vol	1 vol
<u>FLEXIBLE</u>	Gloss	3 vol	-	-	-	1 vol		2 vol	
	Satin	4 vol	2 vol	-	-	-	2 vol	3.5 vol	0.5 vol
	Matt	4 vol	4 vol	-	-	-	2 vol	3.5 vol	1.5 vol
	Matt Textured	4 vol	-	4 vol	-	-	2 vol	3.5 vol	1.5 vol
	Leather Grain	4 vol	-	-	2 vol	-	2 vol	3.5 vol	0.5 vol

POLISHING



Low bake or IR force drying:

Minimum 1 hour after cooling

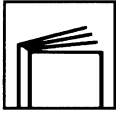
Air drying at 20°C:

Minimum 20 hours after application

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, also available at; <http://www.ppg.com/PPG MSDS>

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