



GLOBAL REFINISH
SYSTEM

Product Information

2K Primer Surfacer/Sealer D839

Product Description

D839 is a grey 2K-primer surfacer suitable for a wide range of day-to-day repair work in the refinish body shop. Versatile, quick drying and easy to apply and sand, it offers excellent adhesion, film build, surface levelling and gloss holdout over a wide range of substrates.

D839 may be applied directly to sound original paintwork, polyester body fillers and suitable adhesion primers. It may be directly overcoated with Global BC, Global DG or Envirobase.

D839 can be applied as a conventional spray filler, primer surfacer or sealer. It may be air-dried, low baked or IR cured.

Preparation of Substrate



In all cases, wash all surfaces to be painted with soap and water, then apply the appropriate Global cleaner. See GLG-142 Global Cleaners bulletin for selection and usage instructions. Ensure that the substrate is thoroughly cleaned and dried both before and after application work.



Original Paintwork should be sanded using European P280 / U.S. 240 grit discs (dry) or European P360 / U.S. 320 grade paper (wet). Exposed bare metal should be spot-primed with a suitable bare metal primer (see below).



Electrodeposition Primer must be thoroughly cleaned as outlined above and may then be directly overcoated with D839 as a wet-on-wet sealer without abrading. If using D839 as a spray filler or primer surfacer, abrade the electrodeposition primer as recommended in the “original paintwork” section.

Aluminum, Bare Steel and Galvanized Steel must be clean, rust-free and abraded thoroughly using European P180 / U.S. 180 to European P280 / U.S. 240 grit paper and primed with D831 Chromate-Free Wash Primer after sanding.

Polyester Body Fillers should be dry sanded with European P180 / U.S. 180 followed by European P280 / U.S. 240 grit paper.




Fibre Glass and SMC should be dry sanded using European P280 / U.S. 240 grit paper.

Plastic should be dry sanded with European P600 / U.S. 400 (use a finer grit for softer plastics) and prime first with D820 Plastic Adhesion Promoter. Wash off residue and dry thoroughly before recleaning with appropriate Global substrate cleaner. The use of a tack rag is recommended.

APPLICATION GUIDE

Mix Ratio:

When Mixed as:

Spray Filler <i>Optimum Film Build</i>	Primer Surfacer* <i>Optimum Drying Speed</i>	Wet-On-Wet Sealer
 <p>D839: 4 Vols D802: 1 Vol Thinner: —</p>	 <p>D839: 4 Vols D802: 1 Vol Thinner: 1/2 Vol</p>	 <p>D839: 4 Vols D894/DG Tinter** : 2 Vols D897 or D884: 1 Vol Thinner: 2 Vols</p>

* D885 may be added up to 1 oz. per ready-to-spray quart in the 4:1: 1/2 option, if desired.

** The DG Tint must have a package VOC of 4.60 or less.

Note: Spray filler and Primer Surfacer applications **must** be sanded.



Potlife @ 20°C / 68°F

When Sprayed as a...

<i>Primer Surfacer</i>	1 Hour
<i>Wet-On-Wet Sealer</i>	1 Hour

Thinner:

D-Thinner Selection	Appropriate Temperature Range:
D870:	Up to 18°C / 65 °F
D871:	18° - 25°C / 65° - 77°F
D872:	25° - 35°C / 77° - 95°F
D873:	Over 35°C / 95°F

Note: D8700 Retarder may be mixed with thinners in temperatures over 35°C / 95°F. The retarder can be mixed up to 10% with the appropriate thinner. Do not use alone as a reducer.

Additives



D839 can be tinted:

In the 4:1 or 4:1:1/2 option, D839 may be tinted by addition of up to 10% by volume of Global DG tinter or mixed DG colour PRIOR to addition of D802 Hardener and the thinner.

D839 as a primer surfacer or wet-on-wet sealer only, can be flexed:

D839 : Ready to spray mix
D814 : 10% by volume

Spraygun set up

Potlife is 1 hour @ 20°C / 68 °F



When Sprayed as a...

<i>Spray Filler</i>	1.6 - 1.8 mm or equivalent
<i>Primer Surfacer</i>	1.6 - 1.8 mm or equivalent
<i>Wet-On-Wet Sealer</i>	1.4 - 1.6 mm or equivalent

Spray pressure

<i>HVLP at air cap</i>	0.7 bar / 10 PSI
<i>Conventional at spray gun</i>	3 bar / 45 PSI

Number of coats



When Sprayed as a...

<i>Spray Filler</i>	up to a maximum of 4 wet coats
<i>Primer Surfacer</i>	2 to 3 wet coats
<i>Wet-On-Wet Sealer</i>	1 medium coat

	<u>Spray Filler</u>	<u>Primer Surfacer</u>	<u>Wet-On-Wet Sealer</u>
<i>Film build per wet coat</i>	125µ / 5.0 mils	100µ / 4.0 mils	75µ / 3.0 mils
<i>Dried film build per coat</i>	50µ / 2.0 mils	37µ / 1.5 mils	25µ / 1.0 mils

APPLICATION GUIDE

Flash off at 20°C / 68°F



Between coats
Before stoving
Before Topcoat

	<u>Spray Filler</u>	<u>Primer Surfacer</u>	<u>Wet-On-Wet Sealer</u>
	5 – 10 minutes	5 – 10 minutes	N/A
	N/A	10 minutes	N/A
	N/A	N/A	15 minutes minimum, 72 hours maximum*

* After 72 hrs Wet-On-Wet Sealer must be scuffed.

Wet-On-Wet Sealer: Over D831, topcoat must be applied within 15 - 45 minutes @ 20°C / 68°F or baked 45 minutes @ 60°C / 140°F or after overnight dry.

Drying times



Dust-free
20°C / 68°F

	<u>Spray Filler</u>	<u>Primer Surfacer</u>	<u>Wet-On-Wet Sealer</u>
	15 minutes	15 minutes	15 minutes



Dry to handle
20°C / 68°F

	60 minutes	60 minutes	80 minutes
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Dry to Sand
20°C / 68°F
60°C / 140°F

	4 hours	2 hours	Sand after 2 hours air dry
	Do not force dry	30 minutes**	30 minutes**



Tape Time
20°C / 68°F
60°C / 140°F

	N/A	N/A	3 hours
	N/A	N/A	45 minutes**

IR (Infrared)
Medium Wave
Short Wave

	Do Not Force Dry	20 minutes	5 – 10 minutes
	Do Not Force Dry	10 minutes	3 – 5 minutes

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

Overcoat /Recoat



Dry to Topcoat
20°C / 68°F
60°C / 140°F

	<u>Spray Filler</u>	<u>Primer Surfacer</u>	<u>Wet-On-Wet Sealer</u>
	4 hours (after sanding)	2 hours (after sanding)	15 minutes
	N/A	15 minutes	45 minutes



Grade wet
Grade dry
Overcoat with

	European P600 / U.S. 400 followed by European P1200 / U.S. 600		
	European P360 / U.S. 320 followed by European P1000 / U.S. 500		
	Envirobase or any Global Topcoat		

Technical Data

	<u>Spray Filler</u>	<u>Primer Surfacer</u>	<u>Wet-On-Wet Sealer</u>
Total dry film build:			
Minimum after sanding	50µ / 2.0 mils	50µ / 2.0 mils	25µ / 1.0 mil
Maximum after sanding	250µ / 10. mils	150µ / 6.0 mils	35µ / 1.4 mils
Film build per wet coat	125µ / 5.0 mils	100µ / 4.0 mils	75µ / 3.0 mils
Dried film build per coat	50µ / 2.0. mils	37µ / 1.5. mils	25µ / 1.0. mil
% solids by volume RTS	40.9	37.1	35.9
Theoretical coverage	Approx	Approx.	Approx. .
	109 sq.ft. / US Gal	149 sq.ft. / US Gal	480 sq.ft. / US Gal

Theoretical coverage in sq.ft./US gal. ready-to-spray (RTS), giving 150µm (6.0 mils) dry film thickness for spray filler, 100µm (4 mils) dry film thickness for Primer Surfacer and 30µm (1.2 mils) for primer sealer.




VOC

(D839)	496 gms per litre / 4.14 lbs. per US gal.
(D839:D802, 4:1)	516 gms per litre / 4.30 lbs. per US gal.
(D839:D802:D872, 4:1:1/2)	546 gms per litre / 4.56 lbs. per US gal.
(D839:DG:D897:D872, 4:2:1:2)	551 gms per litre / 4.60 lbs. per US gal.

2K Primer Surfacer/Sealer

Mix Ratios:

When Sprayed as:

Spray Filler <i>Optimum Film Build</i>	Primer Surfacer* <i>Optimum Drying Speed</i>	Wet-On-Wet Sealer
 D839: 4 Vols D802: 1 Vol Thinner: —	 D839: 4 Vols D802: 1 Vol Thinner: 1/2 Vol	 D839: 4 Vols D894/DG Tinter**: 2 Vols D897 or D884: 1 Vol Thinner: 2 Vols

* D885 may be added up to 1 oz. per ready-to-spray quart in the 4:1: 1/2 option, if desired.

** The DG Tint must have a package VOC of 4.60 or less.

Note: Spray filler and Primer Surfacer applications must be sanded.



Pot life

as a Spray Filler	30 Minutes at 20°C / 68°F
as a Primer Surfacer	1 Hour at 20°C / 68°F
as a Wet-On-Wet Sealer	1 Hour at 20°C / 68°F

Thinner:

<u>D-Thinner Selection</u>	<u>Appropriate Temperature Range:</u>
D870:	Up to 18°C / 65 °F
D871:	18° - 25°C / 65° - 77°F
D872:	25° - 35°C / 77° - 95°F
D873:	Over 35°C / 95°F

Note: D8700 Retarder may be mixed with thinners in temperatures over 35°C / 95°F. The retarder can be mixed up to 10% with the appropriate thinner. Do not use alone as a reducer.

Additives:



D839 can be tinted:

In the **4:1 or 4:1:1/2 option**, D839 may be tinted by addition of up to 10% by volume of Global DG tinter or mixed DG colour PRIOR to addition of D802 Hardener and the thinner.

D839 as a primer surfacer or wet-on-wet sealer only, can be flexed:

D839 : Ready to spray mix
 D814 : 10% by volume *Potlife is 1 hour @ 20°C / 68 °F*

Air Pressure:



HVLP at air cap	0.7 bar / 10 PSI
Conventional at spray gun	3 bar / 45 PSI
Fluid Tip	
as a Spray Filler	1.6 - 1.8 mm or equivalent
as a Primer Surfacer	1.6 - 1.8 mm or equivalent
as a Wet-On-Wet Sealer	1.4 - 1.6 mm or equivalent

Application:



	Spray Filler	Primer Surfacer	Wet-On-Wet Sealer
Apply	Max of 4 wet coats	2 – 3 wet coats	1 medium coat
Between coats	5 – 10 minutes	5 – 10 minutes	N/A
Film build per wet coat	125µ / 5.0 mils	100µ / 4.0 mils	75µ / 3.0 mils
Dried film build per coat	50µ / 2.0 mils	37µ / 1.5 mils	25µ / 1.0 mils

Dry Times:



	Spray Filler	Primer Surfacer	Wet-On-Wet Sealer
Before Stoving	N/A	10 minutes	N/A
Dust-free 20°C / 68°F	15 minutes	15 minutes	15 minutes
Dry to Handle 20°C / 68°F	60 minutes	60 minutes	80 minutes



	Spray Filler	Primer Surfacer	Wet-On-Wet Sealer
Dry to Sand 20°C / 68°F	4 Hours	2 Hours	Sand after 2 hours air dry
60°C / 140°F	Do not force dry	30 minutes**	30 minutes**



	Spray Filler	Primer Surfacer	Wet-On-Wet Sealer
Tape Time 20°C / 68°F	N/A	N/A	3 hours
60°C / 140°F	N/A	N/A	45 minutes**



	Spray Filler	Primer Surfacer	Wet-On-Wet Sealer
IR (Infrared) Medium Wave	Do Not Force Dry	20 minutes	5 – 10 minutes
Short Wave	Do Not Force Dry	10 minutes	3 – 5 minutes



	Spray Filler	Primer Surfacer	Wet-On-Wet Sealer
Dry to Topcoat 20°C / 68°F	4 hours (after sanding)	2 hours (after sanding)	15 minutes
60°C / 140°F	N/A	30 minutes (after sanding)**	45 minutes**

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

Product Compatibility

D839 is compatible as a spray filler and primer surfacer over:

D820 Plastic Adhesion Promoter D831 Chromate Free Wash Primer SX/SXA 1050 Plastic Adhesion Promoter
(*Specialty Performance Products*)

D839 as a spray filler or primer surfacer may be sealed with:

D822 Corrosion Resistant Primer D848 Waterborne 2K Primer D8006 UHS Sealer
(as a sealer) Surfacer (as a sealer) D8040 Series DTM (as a sealer)
D825 2K Tintable Surfacer D859 Low VOC Sealer D8070 series 2K Chromatic Sealers
(as a sealer) D891 Sealer SX1056 Flexible 2K Sealer
(*Specialty Performance Products*)
D839 2K Primer Surfacer/Sealer
(as a sealer)

D839 is compatible as a sealer over:

D820 Plastic Adhesion Promoter D848 Waterborne 2K SX/SXA 1050 Plastic Adhesion Promoter
D822 Corrosion Resistant Primer* Primer Surfacer Sealer* (*Specialty Performance Products*)
D824 Prime-Fill Low VOC D8002 UHS Surfacer* SX1057 Flexible 2K Surfacer*
2K Surfacer* D860 Low VOC Primer Surfacer* (*Specialty Performance Products*)
D825 2K Tintable Surfacer* D831 Chromate Free Wash Primer** SX1060 Brushable 2K Primer Surfacer*
D839 2K Primer Surfacer / Sealer* DTM Uniprime® Direct to Metal (*Specialty Performance Products*)
Primer Surfacer*

**Multiple coat surfacer applications only. Must be fully cured and sanded.*

***Over D831, sealer applications must be topcoated wet on wet within 15-45 minutes at 68°F or allowed to cure overnight or baked 45 minutes at 140°F.*

D839 may be topcoated with:

Global DG Direct Gloss Colour Global BC Basecoat Colour DGLV Direct Gloss Low VOC Colour Envirobase

Performance Guidelines

The use of HVLP spray equipment can give an increase in transfer efficiency of around 10% depending upon the make and model of equipment used. When **spot priming with D839 as a Primer Surfacer, adopt the following procedure:**

- **Ensure that the surface is thoroughly sanded** to the panels' edge or to a distance several centimeters beyond the damaged area, whichever is the smaller.
- After applying the material and allowing it to dry as normal, be careful to thoroughly level the repair edge when sanding.
- Do not attempt spot repair on original or refinish thermoplastic applications, lacquer or 1K finishes.

Also... D839 and its ancillaries are sensitive to moisture, so all equipment must be perfectly dry. Partially used cans of hardener must be carefully closed.

Health and Safety:

See Material Safety Data Sheet and Labels for additional safety information and handling instructions.



- The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels and MSDS's of all the components, since the mixture will have the hazards of all its parts.
- Improper handling and use, for example, poor spray technique, inadequate engineering controls and/or lack of proper Personal Protective Equipment (PPE), may result in hazardous conditions or injury.
- Follow spray equipment manufacturer's instructions to prevent personal injury or fire.
- Provide adequate ventilation for health and fire hazard control.
- Follow company policy, product MSDS and respirator manufacturer's recommendations for selection and proper use of respiratory protection. Be sure employees are adequately trained on the safe use of respirators per company and regulatory requirements.
- Wear appropriate PPE such as eye and skin protection. In the event of injury, see first aid procedures on MSDS.
- Always observe all applicable precautions and follow good safety and hygiene practices.

Emergency Medical or Spill Control Information (304) 843-1300; In Canada (514) 645-1320

Materials described are designed for application by professional, trained personnel using proper equipment and are not intended for sale to the general public. Products mentioned may be hazardous and should only be used according to directions, while observing precautions and warning statements listed on label. Statements and methods described are based upon the best information and practices known to PPG Industries. Procedures for applications mentioned are suggestions only and are not to be construed as representations or warranties as to performance, results, or fitness for any intended use, nor does PPG Industries warrant freedom from patent infringement in the use of any formula or process set forth herein.

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