



GLOBAL REFINISH
SYSTEM

Product Information

D893 Low VOC Performance Clear

Product Description

D893 Low VOC Performance Clear is a premium quality high solids clearcoat specifically formulated for today's high production shop. The force dry time of D893 is up to 50% lower than traditional clears. D893 can be polished within minutes after cooling down.

D893 is designed for use over Global BC Colour (see Data Sheet EU02).

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.



Wet sand with European P800-1200 / U.S. 500-600 grade paper or dry sanding with European P600-800 / U.S. 400-500 grade paper.



Wash off residue and dry thoroughly before recleaning with appropriate Global substrate cleaner. The use of a tack rag is recommended.

Apply Global BC Colour over original stoved finishes or over recommended Global Primers. See Data Sheet EU02 for Global BC system application details.

APPLICATION GUIDE

Mixing Ratio:



D893 3 vols
Hardener 1 vol
D-Thinner 1 vol

Hardener Selection

D884 Air Dry / General Purpose
D887 Stoving / Mar Resistance

Thinner Selection

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
D8700 May replace up to 25% of recommended thinner levels in very warm conditions.

Note: Smaller areas may require faster thinner.

Potlife:



@ 20°C / 68°F 1 – 1½ hours

Additives:



Use **D759 Matting Base** to flatten D894 Clear See EU-33 for application instructions.
Use **D814 Plasticiser** to flexibilize D894 Clear See EU-47 for application instructions.

Spraygun set-up:

Fluid Tip 1.3 – 1.5 mm or equivalent
Spray Viscosity 17 – 18 secs #2 ZAHN (Signature type @ 20°C / 68°F)

Spray pressure:



HVLP at air cap 0.7 bar / 10 PSI
Conventional at spray gun 3 – 4 bar / 45 – 55 PSI

Number of coats:



Apply 2 normal coats
Film build per wet coat 2.40 – 3.00 mils
Dried film build per coat 1.00 – 1.25 mils

Flash off at 20°C / 68°F:



Between coats 5 – 10 minutes
Before stoving 0 – 15 minutes

Drying times:



Dust-free 20°C / 68°F 20 – 25 minutes

Dry to handle
20°C / 68°F 4 hours minimum
60°C / 140°F 15 – 20 minutes



Tape Time
20°C / 68°F 5 – 6 hours
60°C / 140°F 15 – 20 minutes



Through Dry
20°C / 68°F 8 hours
60°C / 140°F 15 – 20 minutes



IR (infrared)
Medium Wave 15 minutes
Short Wave 8 minutes

Note: All force dry times are quoted for metal temperature. Additional time must be allowed during force dry to allow metal to reach recommended temperature.

APPLICATION GUIDE

Overcoat / Recoat:



Overcoat/Recoat Time

10 hours @ 20°C / 68°F or after force dry/cool down + 2 hours



Grade wet

European P800 – 1200 / U.S. 500 – 600

Grade dry

European P600 – 800 / U.S. 400 – 500



Overcoat with

Any Global topcoat system

Performance Guidelines:

Allow the Global BC Colour to flash off for 15 minutes (but no longer than 24 hours) before applying D893 Clear. The timing will depend on thickness and temperature.

Recoating times will be extended at lower temperatures. Global D893 may be sanded with 1200 grit paper or finer and polished when hard, to rectify minor imperfections.

Fading Out - D893 Clear

After spot repairing, clean the gun and then spray Global Blending Thinner D853 around the repaired area to lose the edge and blend the repair into the surrounding panel. Spray starting from the outside of the repair, moving to the center.

Technical Data:

Total dry film build

Minimum	50µm / 2.0 mils
Maximum	75µm / 3.0 mils
Recommended film build per wet coat	40 – 75µm / 2.4 – 3.0 mils
Recommended dried film build per coat	25 – 31µm / 1.0 – 1.25 mils

Theoretical coverage 15.8 m² per litre / 642.2 sq. ft. per US gal.

Note: Theoretical coverage in m² / litre and sq.ft./US gal. Ready-to-spray (RTS), giving 25 µm (1 mils) dry film thickness.

Percent solids by volume RTS 40.04

VOC

(D893)	494 gms per litre / 4.12 lbs. per US gal.
(D893:D884:D872, 3:1:1)	498 gms per litre / 4.15 lbs. per US gal.

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.



Low VOC Performance Clear

Mix:



D893 3 vols
Hardener 1 vol
D-Thinner 1 vol

Hardener Selection

D884 Air Dry / General Purpose
 D887 Stoving / Mar Resistance

Thinner Selection

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
 D8700 May replace up to 25% of recommended thinner levels in very warm conditions.

Note: Smaller areas may require faster thinner.

Additives:



Use **D759 Matting Base** to flatten D894 Clear See EU-33 for application instructions.
 Use **D814 Plasticiser** to flexibilize D894 Clear See EU-47 for application instructions.

Pot life:



@ 20°C / 68°F 1 – 1½ hours

Air Pressure:



HVLP: 0.7 bar / 10 PSI at the air cap
 Conventional: 3 – 4 bar / 45 – 55 PSI
 Fluid tip: 1.3 – 1.5 mm or equivalent

Application:



Apply: 2 coats
 Between coats 5 – 10 minutes
 Before stoving 0 – 15 minutes
 Film build per wet coat 2.40 – 3.00 mils
 Dried film build per coat 1.00 – 1.25 mils

Dry times:



Dust-free 20°C / 68°F 20 – 25 minutes

Dry to handle
 20°C / 68°F 4 hours
 60°C / 140°F 15 – 20 minutes**



Tape Time
 20°C / 68°F 7 – 8 hours
 60°C / 140°F 15 – 20 minutes**



Through Dry
 20°C / 68°F 8 hours
 60°C / 140°F 15 – 20 minutes**



IR (infrared)
 Medium Wave 15 minutes
 Short Wave 8 minutes



Dry to Topcoat
 20°C / 68°F 10 hours @ 20°C / 68°F
 60°C / 140°F or after force dry/cool down + 2 hours

** All force dry times are quoted for metal temperature. Additional time must be allowed during force dry to allow metal to reach recommended temperature.

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.

**PPG Industries
19699 Progress Drive
Strongsville, OH 44149**

**PPG Canada Inc.
1330 Castlefield Avenue
Toronto, Ontario M6B 4B3**