

ENVIROBASE[®]

HIGH PERFORMANCE

Product Information

ECW8186 Waterborne Clearcoat

Product Description

ECW8186 Acrylic Urethane Waterborne Clearcoat is based on the latest waterborne technology which has been optimized for use over Envirobase[®] High Performance basecoat. It delivers a full waterborne basecoat / clearcoat alternative for collision centers that wish to be on the cutting edge of the latest refinish technology as well as minimizing their VOC emissions. The simple application produces a high quality appearance from the gun with easy polishing.

Preparation of Substrate:



In all cases, wash all surfaces to be painted with soap and water, then apply the appropriate Global or OneChoice[®] cleaner. Ensure that the substrate is thoroughly cleaned and dried both before and after application work.



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



Wash off residue and dry thoroughly before re-cleaning with appropriate Global or OneChoice substrate cleaner. The use of a tack rag is recommended.

APPLICATION GUIDE:

Mixing Ratio for ECW8186 Waterborne Clearcoat



ECW8186 Waterborne Clearcoat
EHW8224 Waterborne Clearcoat Hardener

5 vols
2 vols

Stir well Before Thinning

T494 Waterborne Thinner

2 vols



Pot life* @ 68°F / 20°C

2 hours

*Note: Pot life will be shortened with increased temperatures.

Additive: None

Note: When used on plastic parts, ECW8186 does not require the use of a flexible additive.

Spraygun set-up:



Fluid Tip

1.1 - 1.3 mm

Spray Viscosity

20-21 secs DIN 4 @ 20°C / 68°F

Note: Initial viscosity after mixing may be higher but this will not effect application. When using a disposable spray gun cup, a vented cup system is preferred.

Spray pressure:

HVLP at air cap

Max. 10 psi

For best overall results, refer to the manufacturers recommendations for optimum spray gun inlet air pressures.

Application:



Apply 1 even light coat followed by 1 full coat with 1 minute flash off between coats to give 2-2.5 mils of dry film build.

The first coat should be applied to all repair panels before the second coat is applied.

Avoid heavy wet coats trying to achieve a full flow out of the spraygun. The clearcoat will flow during the flash off and when baking. Note: Use of air assisted drying may cause dieback or solvent pop.

Flash off at 68°F/20°C:



Allow to flash until the clearcoat becomes completely transparent with no milky appearance before baking.

Drying Times:

Air Dry

68°F / 20°C

N/A

Force Dry

140°F / 60°C Metal Temperature*

40 minutes

Tape Time

140°F / 60°C Metal Temperature*

40 minute bake, After cool down

IR (Infrared)

N/A**

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

** Not recommended as the intensity of infrared curing may cause solvent pop

Cumulative Parts Mix by Weight Activation Chart for ECW8186 Waterborne Clearcoat 5 : 2 : 2

Clearcoat Required	ECW8186 Clearcoat	EHW8224 Hardener		T494 Thinner
¼ Pint / 4 oz.	76.7	108.0	STIR	137.5
½ Pint / 8 oz.	153.5	216.1		275.1
¾ Pint / 12 oz.	230.2	324.1		412.6
1 Pint / 16 oz.	306.9	432.1	WELL	550.1
1.5 Pints / 20 oz.	460.4	648.2		825.1
1.75 Pints / 28 oz.	537.1	756.1	BEFORE	962.6
1 Quart / 32 oz.	613.8	864.2		1100.1
1.5 Quarts / 40 oz.	920.8	1296.4	THINNING	1650.3
2 Quarts / 64 oz.	1227.6	1728.4		2200.2

APPLICATION GUIDE:

Overcoat/Recoat



Overcoat/Recoat Time

After force dry and cool down, ECW8186 must be sanded before recoating with primer, color or clear.



Grade wet

U.S. 500 – 600 / European P800 - 1200



Grade dry

U.S. 400 – 500 / European P600 - 800



Overcoat with

Envirobase High Performance Basecoat



Polishing

Polishing is not normally required. If, however, polishing is required to remove minor dirt nibs, start with P1200 followed by P1500 and then P3000 to be sure all P1500 grit scratches are completely removed before polishing. **Caution:** Clearcoat will sand flat quickly. Using low speed, follow normal polishing procedures. After baking, polishing will be easiest completed between 6 hours or over night.

Performance Guidelines

Allow the Envirobase High Performance Waterborne Basecoat to flash off for 15 minutes (but no longer than 24 hours) before applying ECW8186 clearcoat. If basecoat dries longer than 24 hours, additional basecoat must be applied before clearcoating. The timing will depend on thickness and temperature.

Fading Out ECW8186

After spot repairing with Envirobase High Performance basecoat, ECW8186 clearcoat must be applied to full panels only. There is not an open panel blending recommendation for ECW8186 clearcoat.

Technical Data

Total dry film build:

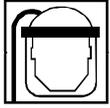
Minimum	2.0 mils
Maximum	2.5 mils
Recommended film build per wet coat	2.0 - 2.5 mils
Recommended dried film build per coat	1.0 - 1.5 mils

RTS Combinations:

Volume Ratio:	ECW8186 : EHW8224: T494 5 : 2 : 2
Applicable Use Category	Clear Coating
VOC Actual (g/L)	126
VOC Actual (lbs/gal)	1.06
VOC Regulatory (less water less exempt) (g/l)	250
VOC Regulatory (less water less exempt) (lbs/gal)	2.09
Density (g/L)	1033
Density (lbs/gal)	8.62
Volatiles wt. %	60.2
Water wt. %	48.0
Exempt wt. %	0.0
Water vol. %	49.6
Exempt vol. %	0.0
Solids vol. %	36.3
Sq Ft. Coverage / U.S.gal. 1 mil. @ 100% transfer efficiency	582

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 (412) 434-4515; 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 Automotive Refinish

Bringing innovation to the surface.™

PPG Industries
19699 Progress Drive
Strongsville, OH 44149
1-800-647-6050

PPG Canada Inc.
2301 Royal Windsor Drive Unit #6
Mississauga, Ontario L5J 1K5
1-888-310-4762

