

# Product Information

## EC5515, EC5517

### Low VOC Matte and Semi-Gloss Clearcoat System

#### Product Description

The ENVIROBASE® High Performance 2.1 Low VOC Matte Clearcoat System consists of two versatile 2K acrylic urethane clearcoats designed to reproduce a range of low gloss levels, including the specialized repairs of vehicles or areas of vehicles originally finished with a low gloss clearcoat over a single or multistage basecoat color system (e.g. LAMBORGHINI® or MERCEDES BENZ® full body matte finish). To allow for the normal gloss variations due to color, model, position or repair on vehicle etc., the actual mix of the two clearcoats can be varied to match the vehicle to be repaired.

The EC5515/EC5517 or mixes of the two may also be used over rigid plastics without the need of special additives.

EC5515 Matte and EC5517 Semi-Gloss Clearcoats are designed for use over *Envirobase* High Performance (EHP™) basecoat color with T492 and T493 additive in the basecoat.

#### Preparation of Substrate



- When masking a repair, care should be taken to minimize direct contact of masking tape onto the original matte finish. When it is necessary to use making tape directly on the original finish, the tape must be removed before baking to avoid marking of the original which may not recover.



- EC5515/EC5517 clearcoats must be applied on top of a clean and dust-free basecoat. The use of a tack cloth is recommended after the basecoat has flashed off.



- Care should be taken to avoid dirt inclusion at all stages. Rectification of dirt inclusion in matte or low gloss finishes is not possible after the final coat of clearcoat.
- In all cases, wash surfaces to be painted with soap and water and then apply the appropriate PPG substrate cleaner. Ensure that the substrate is thoroughly cleaned and dried, both before and after application work.
- Wet sand with US 500-600 grade paper or dry sand with US 400-500 grade paper.
- Wash off sanding residue and dry thoroughly before re-cleaning with the appropriate PPG substrate cleaner. The use of a tack rag is recommended.

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**APPLICATION GUIDE:**

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**Required Products:****Hardener:** ECH5075 Standard Hardener    **Thinner:** DT1855 Compliant Reducer Slow**Mix Ratios:**

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EC5515/EC5517: 3 parts  
ECH5075: 1 part  
DT1855 1 part

**Note:** The volume ratio shown above is for reference; however, it is important that to ensure accurate and replicable mixing of matte clearcoat finishes, they should be mixed by weight on a scale. **To verify a color match and gloss level, it is recommended that a test panel be sprayed before spraying the vehicle.** FC01-FC05 matte levels will appear with the color formulas that require a low gloss finish.

**Pot Life:** 1-2 hours at 70°F**Blending Ratio:** EC5515 or EC5517 clearcoats may be used individually or combined to achieve five different levels of gloss. See table below for % combinations.

	<b>FC01 = Flat</b> Lamborghini full body matte finish	<b>FC02 = Matte</b>	<b>FC03 = Eggshell</b> Mercedes Benz, Smart, BMW, Fiat full body matte finishes	<b>FC04 = Satin</b>	<b>FC05 = Semi-Gloss</b> Older Mercedes lower body cladding
<b>Percentage of Gloss</b>	<b>0-10.%</b>	<b>10.1-20%</b>	<b>20.1-30%</b>	<b>30.1-45%</b>	<b>45.1-60%</b>
<b>EC5515 %</b>	100	65	40	25	0
<b>EC5517 %</b>	0	35	60	75	100

**Additives:**

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None

**Note:** Matte finish clearcoats may be applied over rigid plastics without the need to add a Flexibilizer.

**Spray Gun Setup and Pressure:**

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**Fluid Tip:** 1.2-1.4 mm or equivalent  
**HVLP:** 10 PSI at the air cap  
**Compliant:** 29 - 40 PSI at the gun

**Note:** Refer to the spray gun manufacturer's recommendations for optimum inlet air pressures.

**Application:**

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**The preparation of color test panels to check the color and number of coats of clearcoat to achieve the correct matte effect is strongly recommended.** The original matte finish can sometimes become less matte over time due to weathering and cleaning processes used by car owners. EC5515/EC5517 can be used individually or combined to achieve five levels of gloss.



Notes: No Fade-out process is possible for matte colors.

The clearcoat can be de-nibbed to remove minor dirt inclusions after the first coat is dust free as listed below. Any de-nibbing must be completed before the final coat of reduced gloss clearcoat is applied. Dirt removal from the final low gloss finish is not possible.



**Apply:** 1 Full single coat  
Flash off until evenly matte all over  
1 Full single coat followed immediately by a lighter (½ coat) cross coat.  
Flash off until evenly matte before baking.

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**Film Build:**

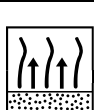
<b>Minimum dry film build:</b>	2.0 mils
<b>Maximum dry film build:</b>	2.5 mils
<b>Recommended wet film build per coat:</b>	2.1 - 3.1 mils
<b>Recommended dry film build per coat:</b>	1.0 - 1.25 mils

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**Flash Off at 70°F (21°C):**

**Flash:** 3 - 5 minutes between coats

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**Drying Times:**

**Between Coats:** 15-30 minutes for best results, allow to dry matte\*  
70°F (21°C)

- Allowing the clearcoat to flash off completely between coats and before baking is important to achieve an even appearance and gloss level over the whole area.



**Dust Free:** 35-45 minutes  
70°F (21°C)



**Force Dry\*:** 15-30 minutes purge time ensuring the clearcoat is completely matte before baking  
140°F (60°C) 40 minutes\* bake

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

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**Overcoat / Recoat:**

**Overcoat/Recoat Time:** 12 hours at 70°F (21°C) or after force dry / cool down

*Must be sanded before recoating to ensure proper adhesion*



**Grade Wet:** US 500-600

**Grade Dry:** US 400-500

**Overcoat with:** Envirobase High Performance basecoat

*Recoat times will be extended at lower temperatures*

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**Performance Guidelines:**

The gloss levels achieved with this clear may vary depending upon film thickness and application. Low film thickness and dry application will give a lower gloss level. High film thickness and wetter application will give a higher gloss level. It is recommended that EC5515/EC5517 clearcoats be used only for complete panel repairs.

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**Technical Data:**

RTS Combinations	EC5515/EC5517 : ECH5075 : DT1855
Volume Ratio	3 : 1 : 1
Applicable Use Category	Clear Specialty Coating
VOC Actual (g/L)	118 - 119
VOC Actual (lbs./ US gal.)	0.98 - 0.99
VOC Regulatory (less water, less exempt (g/L)	242 - 245
VOC Regulatory (less water, less exempt (lbs./ US gal.)	2.02 - 2.04

**Technical Data, Continued:**

RTS Combinations	EC5515/EC5517 : ECH5075 : DT1855
Density (g/L)	1200 - 1238
Density (lbs. / US gal.)	10.01 - 10.33
Volatiles wt. %	64.3 - 64.4
Water wt. %	0
Exempt wt. %	54.6 - 54.8
Water vol. %	0
Exempt vol. %	51.5 - 51.6
RTS Solids vol.%	35.8 - 36.0
RTS Solids wt. %	35.6 - 35.7
Sq. Ft. Coverage at 1 mil. at 100% transfer efficiency	574 - 577

**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 documents of all the components, since the mixture will have the hazards of all of 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, result, 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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## GENERAL CARE AND MAINTENANCE OF MATTE FINISHES

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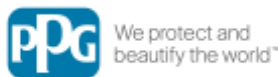
The following guidance on Care and Cleaning of matte finish vehicles is aimed at the car owner, and applies to both the OE and repair finish. Particular care must be taken with matte finishes to maintain an original even matte effect. See below for guidance for the car owner on maintaining the even matte effect over time.

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Matte/Low gloss finishes can be relatively easily marked with general handling and day to day use (door/hood/deck lid opening, shoe scuffing on entry or exit of vehicle etc.). Care should be taken with these operations because marking or changing of the matte effect could result.

Care should be taken to avoid spillage of fuel onto the matte/low gloss finishes. Fuel spills should be removed as soon as possible using the washing guidelines below to avoid permanent damage or altering of the low gloss effect.

1. To keep the matte surface effect, the use of paint cleaner, abrasives or polishes and wax polishes **must** be avoided. The vehicle **must** not be polished.
  2. Polishing will lead to a higher, uneven gloss effect.
  3. Cleaning with unsuitable materials could alter the matte effect (generally increasing gloss).
  4. Automated car washing should be avoided. The preferred car washing method is by hand with a soft sponge, mild soap and lots of water. Frequent car washing over a period of time could lead to increased and inconsistent gloss levels across a car panel. Washing under direct sunlight should also be avoided.
  5. Insects and bird droppings should be removed immediately. These residues should be soaked in water to soften and/or remove carefully with high pressure cleaning equipment. In the case of strongly adhered residues, a spray on insect remover should be used prior to washing.
  6. Whenever using any type of cleaning fluids with soft sponges or clothes, it is essential not to apply pressure or rub the matte finish. A gentle wipe/spray on, wipe off technique should be used. Applying pressure will alter the matte effect and result in an uneven appearance.
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