

# TECHNICAL DATASHEET



March 2024

TCB105V

## TCB105V Technical Color Bulletin

Envirobase HP Waterborne Basecoat 3CT Color Toners

### PRODUCTS

T4850 Vivid Red Ruby Envirobase High Performance Basecoat

T4800 Midcoat Clear Envirobase High Performance Basecoat

### PRODUCTS DESCRIPTION

The T4850 Vivid Red Ruby Envirobase High Performance is a particularly brilliant and deep red color toner, which has extremely clear light reflections and a particularly high depth effect.

This striking color tone effect is created by a 3-layer paint process using special pigments and toners.

The T4800 Midcoat Clear is a transparent toner to support the mid layer.

T4800 is a product similar to T490, but clearer/water white.

\*T4800 is not a blender to be used as a wet bed doing blend process.



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**ENVIROBASE®**  
HIGH PERFORMANCE

## PREPARATION OF SUBSTRATE



Degrease all surfaces to be painted with appropriate PPG waterborne substrate cleaner before wet sanding with P800 grade paper or dry sanding with P400-500 grade paper.

Wash off residues and dry thoroughly before re-cleaning with appropriate waterborne PPG precleaner see - Technical Data Sheet Deltron Cleaners RLD63V.

The use of a tack-rag is recommended.

Apply over original sanded and clean 2K finishes, or a range of PPG primers - refer to primer TDS for specific recommendations. The use of GreyMatic primers is recommended for optimum results.

Wash off residues and dry thoroughly before re-cleaning with appropriate waterborne pre-cleaner see - Technical Data Sheet.

## PRE-APPLICATION

Hand-shake bottles of *Envirobase* HP tint and T4900/T4910 for a few seconds before use. Do not shake vigorously.

Mixed *Envirobase* RFU colour should be thoroughly hand-stirred before application. If not used immediately it should be hand-stirred again before use.

Use nylon paint filters specially designed for use with waterborne paint materials.

A 125 micron mesh is recommended.

## Process

### 1. REPAIR AND PREPARATION OF SUBSTRATE

1.1 Prepare the damaged body parts with the appropriate PPG Refinish products. Please observe the information in the Technical Data Sheets of the respective product systems.

Use Greymatic according to the color shade. Greymatic G5 is required for this color.

### 2. GROUNDCOAT AND PREPARATION OF SUBSTRATE

2.1 When preparing the substrate as recommended below, suitable colour panels should be prepared alongside for use when checking the color/effect of the basecoat.

To produce the colour panels, use the full panel application process described below.

In order to define how many coats of step two are needed to achieve best possible color match, it is recommended to produce several spray out cards.

2.2 For the current available color formulations, a G5 groundcoat color is used.

The G5 shade gives the best guide as to when full coverage is achieved.



## ENVIROBASE HP - SET UP & PROCESSES

### Mixing Ratios with Envirobase HP Standard (3CT colors).

Step	Volume / Parts	Metallic Colors	Solid Colors
Step 1	Envirobase HP	100	100
	T494/T595	20	5
Step 2	T4800 + Mica / Solid	100	100
	T494 / T595	20-30	20-30

#### Optional Mix Ratios using hardener/T493 in Step 1 RFU:

Metallic/Solid Colors: 100:10:5:5 (ENVHP+T492+T494/T595+T493)

### Mixing Ratios with Envirobase HP OneVisit Modifier (3CT colors).

Step	Volume / Parts	Metallic Colors	Solid Colors
Step 1	Envirobase HP	100	100
	T4900 / T4910	20	5
	T494 / T595		15
Step 2	T490 + Mica / Solid	100	100
	T494 / T595	20	20

#### Optional Mix Ratios using hardener/T493 in Step 1 RFU:

Metallic Colors: 100:20:5:5 (ENVHP+T4900/T4910+T494/T595+T493)

Solid Colors: 100:10:15:5 (ENVHP+ T4900/T4910+T494/T595+T493)



Spray gun setup:

Conventional/RP STD Temp: 1,2mm  
Conventional/RP High Temp: 1,3mm

HVLP STD Temp: 1,3mm  
HVLP High Temp: 1,4mm

Spray pressure:

ENVHP STD: 29 PSI – Light control coat: 17-21 PSI  
ENVHP OVM: 26 PSI

Number of coats:

**ENVHP STD:** Express or Single coat (See TDS: EB-143)

**ENVHP OVM:** 1 Visit (See TDS: EB-MOD T4900/T4910)

Flash-off time:

Fast dry or comparable flash-off systems.

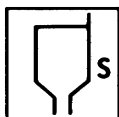
The basecoat must be completely flash-off matt.

Alternative, 104.00°F for 8 min.

## Mixing Ratios with Blending Adjuster

	Volume / Parts
T490 Blending Adjuster	100
T494/T495	20

	Volume / Parts
VWM5556 Blending Adjuster	100
T4900 / T4910	20



Viscosity will vary pending the color/toner combinations and mix ratio.  
(If needed viscosity can be adjusted accordingly using T494 or T595)

### NOTE!

Please check the color before application. The layer thickness and number of spray coats of the effect / second layer significantly affect the colour match to the standard paint.

It is *not* recommended to apply more than 3 coats of effect/second coat.

Details on the processing of the color for coating complete vehicle parts as well as the blending process are described below.



## ENVIROBASE HP - APPLICATION PROCESSES

### Application of the basic tone (Step one) in Envirobase High Performance (Full Panel Application)

Number of coats: **ENVHP STD:** Express(Cascade) or Single coat (See TDS: RLD213V)

**ENVHP OVM:** 1 Visit (See TDS: RLD490V)

Flash-off time: Fast dry or comparable flash-off systems  
The basecoat must be completely flash-off matt.  
Alternative, 104.00°F for 8 min.

Step 1: Final appearance



## APPLICATION OF THE SECOND LAYER (STEP TWO) IN ENVIROBASE HIGH PERFORMANCE (FULL PANEL APPLICATION)

First coat Step two: After Flash off.



Step 2: Final basecoat appearance (wet)





## Clearcoat Application:

Any conventionally drying PPG UHS clearcoat can be used for the final coating.

Please observe the information in the Technical Data Sheets of the respective clearcoat.

## FINAL APPERANCE T4850





## 3-COAT COLOR – BLEND PROCESS

### COLOR BLENDING PROCESS:



Preparation of the substrate in Greymatic G5

Mix and process the primer materials according to above or the technical data sheet of the respective product.

## BLEND PROCESS STEP 1:

1. Wet bed step 1:

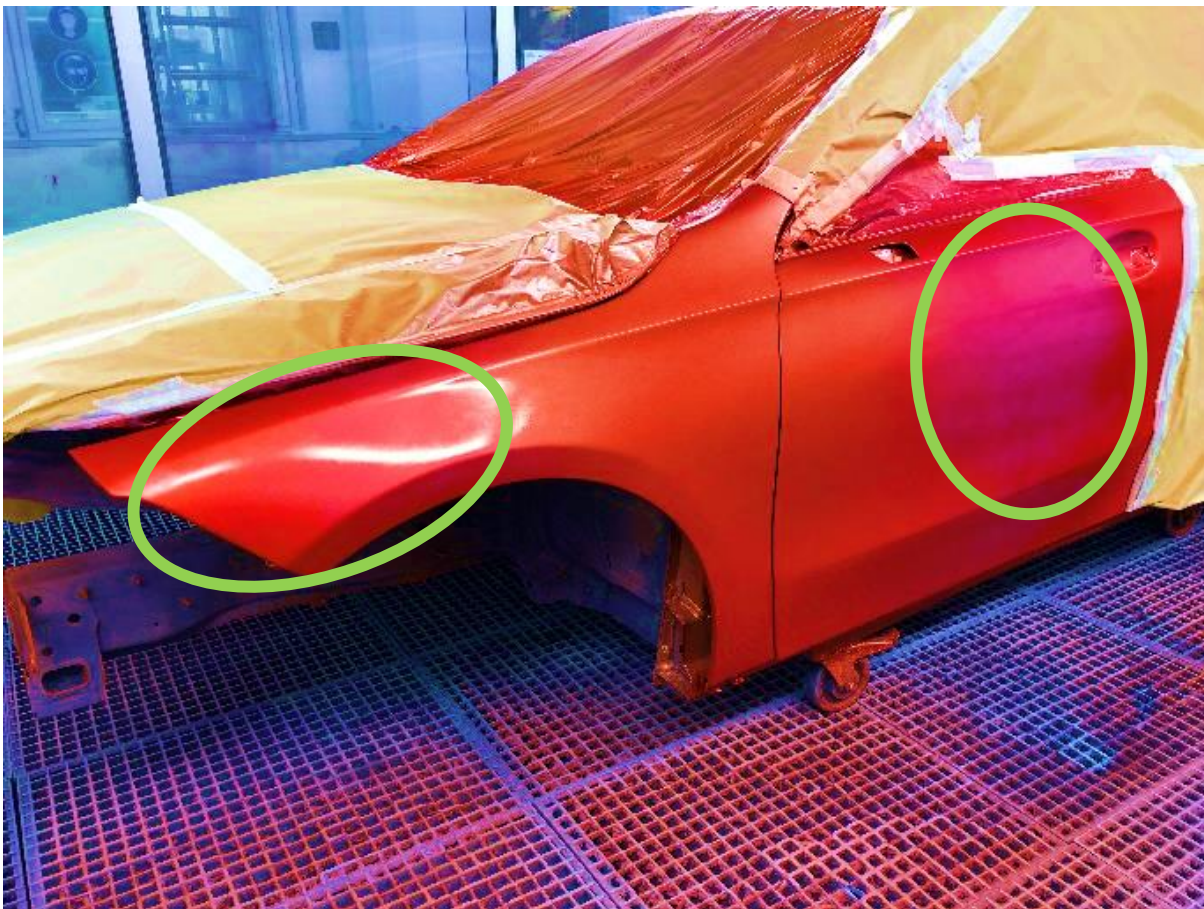
Apply the T4904 Blending Adjuster RFU in the area to be blended. The Blending Adjuster need to be applied as a wet layer to enable the pigments/RFU color to get the correct lay-down and metallic orientation. **(Green ring marked in photo)**

2. Apply 1 coat one thin coat of Step 1 RFU color in the repair area, followed by reverse blend in process to opacity. Avoid heavy layers. Blend the fading-out area as smooth as possible using reverse technique.

**\*NOTE\*** Step 1 RFU Color must be focused as limited as possible into the adjacent panel

3. End Step 1 RFU Color process with a light control coat in the blend area.

(If the blend looks smooth, control coat is not needed.)





## APPLICATION OF THE SECOND LAYER (STEP TWO) IN ENVIROBASE HIGH PERFORMANCE (BLEND)

### 3CT Step 2:

Apply the T4904 Blending Adjuster RFU on the adjacent panel or only in the area to be blended. The Blending Adjuster has to be applied as a wet layer to enable the pigments/RFU color to get the correct lay-down and metallic orientation.

Apply 1 coat one thin coat of Step 2 RFU color in the repair area extending blend area over step 1, here after followed by reverse blend in process to correct appearance. Avoid heavy layers. Blend the fading-out area as smooth as possible using reverse technique.

End the process with a light control coat in the blend area.



**NOTE:** Try to let the layers flow out over a wide area, otherwise there is a risk that this will become Streaky/colorful, or visible at certain angles

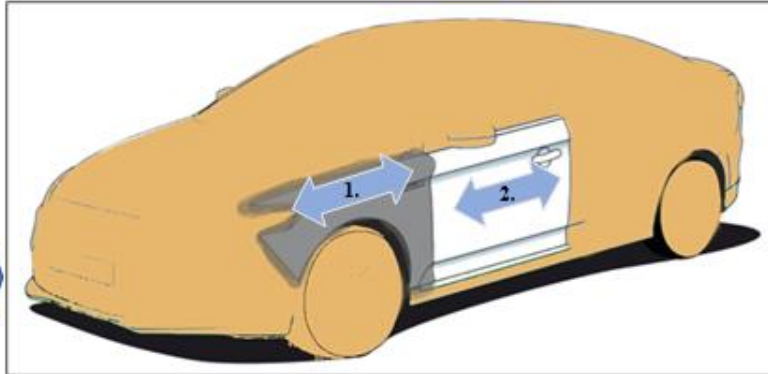
## STEP 2: FINAL APPEARANCE PRIOR CLEARCOAT PROCESS.





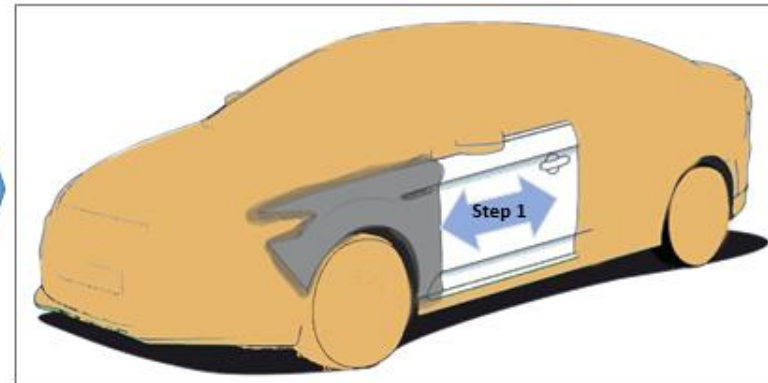
## ANIMATED OVERVIEW:

1. Repaired or new panel
2. Adjacent panel

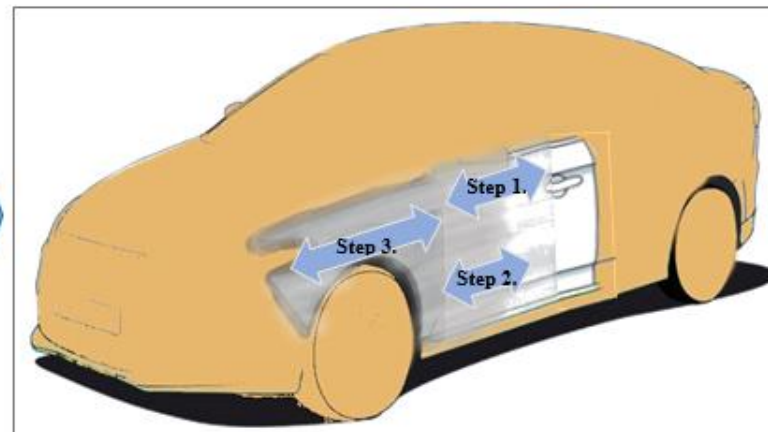


- 1:**  
**Blending Adjuster**  
1. Apply the blend bed adjuster as a wet coat on the adjacent panel or in only in blend/fade-out area.

(The Blending Adjuster will allow the correct pigment lay down in the blend area)



- 2:**  
**WBBC Color RFU**  
Step 1 Apply a light coat into the Blending area.  
Step 2 Apply STD blend process into the Blending Area.  
Blend/fading-out as smooth as possible.  
End the blend process with a light control coat on blend area.



## CLEARCOAT APPLICATION:

Any conventionally drying PPG UHS clearcoat can be used for the final coating.

Please observe the information in the Technical Data Sheets of the respective clearcoat.



## REPAIR AND RECOATING



Overcoating:

*Envirobase* HP ready for use mix can be overcoated with a PPG clearcoat after flash off till mat.



De-nib:

It is possible to de-nib *Envirobase* HP *OneVisit* Modifier, after flash off, with fine sanding paper – P1000-1500 (dry paper) using air blowing and a tack rag to remove sanding dust and followed by a spot repair (see FADING-OUT section) prior to the clearcoat application.

## EQUIPMENT CLEANING

- Clean all mixing equipment immediately after use, preferably using a dedicated waterborne equipment cleaning machine.
- Use tap water, with a final rinse using deionized water or an alcohol-based cleaner such as D846.
- Ensure all equipment is completely dry before storage or use.

## STORAGE & HANDLING



ENVHP tinters, mixed colour & *OneVisit* Modifier should be stored in a cool, dry place away from sources of heat. During storage and transportation temperatures must be maintained at a minimum of +5°C and a maximum of +35°C. Avoid exposure to frost or freezing conditions.

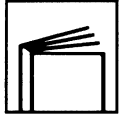


ENVHP should be mixed in clean, dry containers and equipment. Do not use mixing vessels or spray equipment that contains solvent residues. Mixing vessels should ideally be plastic - if metallic they should have an internal anti-corrosion coating.

## VOC INFORMATION

The EU limit value for this product (product category: IIB.d) in ready to use form is max. 3.5 lb/gal (420 g/litre) of VOC. The VOC content of this product in ready to use form is max. 3.5 lb/gal (420g/litre). Depending on the chosen mode of use, the actual ready to use VOC of this product may be lower than that specified by the EU Directive code.

## WASTE HANDLING & DISPOSAL / HEALTH & 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: [www.ppgrefinish.com](http://www.ppgrefinish.com)

Store waterborne & solventborne wastes separately. All wastes must be handled by a competent agent with appropriate certification. Waste **must** not be disposed of into drains or watercourses.