

**Polyurethane Basecoat**

# ESSS Basecoat

ESSS Basecoat is an easy-to-use product designed to be mixed from ESSS color formulas, offering a wide array of solid, metallic, and pearl colors. VOC is below 3.5 RTS and is designed for use with ESC621 clearcoat. Essential basecoat can be used over all properly prepared OEM finishes, cured air-dried finishes, and DELFLEET ESSENTIAL<sup>®</sup> primers listed below.

**Additional Products**

- Essential Color      ESSS
- Hardener              ESH210
- Basecoat Converter    ESB800

**Compatible Surfaces**

*ESSS Basecoat may be applied over:*

- Properly cleaned and sanded OEM enamels and cured finishes
- ESU410 - Polyurethane Primer
- ESU420/ESU421 - 3.5 Epoxy Primer White/Gray
- ESU430 - Epoxy Primer
- ESU440 - 3.5 Primer Surfacer
- ESU460/ESU461/ESU462 - 4.6 Epoxy Primer - Gray/White/Black
- ESU470 - 2.1 Epoxy Primer
- ESU480/ESU481/ESU482 2.1 VOC Epoxy Primer Gray/White/Black

When sanding prior to the application of ESSS basecoat, use 320 grit wet or dry.

**Selection Of Substrate Cleaner - ONECHOICE<sup>®</sup> Commercial CFX Cleaners**

Code	Product	Purpose
CFX435LV	Low VOC Cleaner	Compliant cleaner suitable for removing dirt, grease or other contaminants before or during the painting process.
CFX436	Wax & Grease Remover	Suitable for removing dirt, grease or other contaminants before or during the painting process.
CFX437	Heavy Duty Wax & Grease Remover	Used to remove heavy milling oils and grease from bare substrates prior to the painting process.



## Application Guide

### Preparation:



- If painting over a cured substrate, final clean area with CFX435LV or CFX436 cleaner.



- Sand substrates, Sand with 180 – 240 grit on old finishes and body filler, then re-clean with CFX436 or CFX437.

- Prime substrates immediately after cleaning

### Mixing Ratio:



- 2 ESSS
- 1 ESB800
- 1 ESH210

Hand shake ESB800 before addition

### Pot Life:



1.5 hours @ 70°F (21°C) / 50% RH

**NOTE:** High heat and humidity will shorten pot life

### Spray Viscosity:



#2 Zahn Cup 15-30 seconds

### Additives:



N/A

### Spray gun Set-up:



	HVLP	Conventional
Fluid Tip	1.3 - 1.7 mm	1.3 - 1.7 mm
Air Pressure	8 - 10 PSI at the cap	50 - 60 PSI

### Pressure Pot Set-up:

Starting setup, adjust from here for best results

	HVLP	Conventional
Fluid Tip	1.0 - 1.4 mm	1.0 - 1.4 mm



	HVLP	Conventional
Fluid Delivery	8 - 12 fluid ounces per minute	8 - 12 fluid ounces per minute

### Number of Coats:



Spray to hiding  
10 minute flash between coats

### Film Build:

	Wet Film (per coat)	Dry Film (Total)
Minimum	2.0 - 4.0 mils	5.0 mils
Maximum		

### Flash Times:



10 - 15 minutes @ 70°F (21°C) before Force Dry

### Dry Times



To Touch: 15 - 30 minutes @ 70°F (21°C)  
To Handle: 1 - 1 ½ hours @ 70°F (21°C)



Tape Free: 2 hours @ 70°F (21°C)  
30 minutes @ 140°F (60°C)  
Flash prior to bake: 5 - 10 minutes @ 70°F (21°C)



Force Dry: 30 minutes @ 140°F (60°C)



To Recoat / Clearcoat: Clearcoat within 1 hour after cool down.  
Minimum: 30 minutes  
Maximum: 72 hours @ 70°F (21°C)

**After 3 days (72 hours), scuff the basecoat lightly and reapply basecoat if necessary prior to clearcoating.**

**NOTE:** Force drying times are for quoted surface temperature. Additional time should be allowed in the force-drying schedule to allow surface to reach recommended temperature.

### Physical Characteristics: (Color Dependent)

Total Solids By Weight (RTS)	36.2% - 58.7%
Total Solids By Volume (RTS)	33.3% - 41.6%

Pounds VOC per Gallon Solids	4.97 - 5.26 lbs
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Theoretical Coverage: (Color Dependent)

534 - 667 sq. ft.

Theoretical coverage in sq. ft. /US gal. Ready-to-spray (RTS), giving 1mil. (25 mm) dry film thickness (assuming 100% Transfer Efficiency)

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**Application Guide Continued**

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<b>RTS Combinations:</b>	<b>ESSS color</b>	<b>ESSS : ESB800 : ESH210</b>
Volume Ratio:	Package (as is)	2 : 1 : 1
Applicable Use Category	Color Coating	Color Coating
VOC Actual (g/L)	248 - 317	206 - 248
VOC Actual (lbs/gal)	2.07 - 2.65	1.72 - 2.07
VOC Regulatory (less water less exempt) (g/L)	317 - 337	346 - 364
VOC Regulatory (less water less exempt) (lbs/gal)	2.65 - 2.81	2.89 - 3.04
Density (g/L)	968 - 1812	1093 - 1522
Density (lbs/gal)	8.08 - 15.12	9.12 - 12.70
Volatiles wt. %	17.5 - 46.7	41.3 - 63.8
Water wt. %	0.0	0.0 - 0.2
Exempt wt. %	0.0 - 22.2	25.0 - 44.9
Water vol. %	0.0	0.0 - 0.2
Exempt vol. %	0.0 - 26.2	28.4 - 41.8

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**Health and Safety:**

Safety Data Sheets (SDS) for the PPG products mentioned in this publication are available through [www.ppgcommercialcoatings.com](http://www.ppgcommercialcoatings.com) (Safety, SDS Search) or your PPG Distributor.

For additional information regarding this product, see the SDS and LABEL information.

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