ENVIROBASE®
HIGH PERFORMANCE

Product Information

ECS21 White, ECS25 Gray, ECS27 Black A-Chromatic LV Sealer

Product Description

A-Chromatic LV Sealer ESC21, 25 and 27 are premium quality, wet on wet sealers designed specifically for use under Envirobase High Performance Waterborne Basecoat.

The fast drying A-Chromatic LV Sealer have superior flow properties and excellent topcoat holdout. A variety of A-Chromatic grays can be achieved by intermixing of the three packaged sealers. The sealers can be applied over un-sanded OEM e-coat, sanded original finishes and/or properly prepared and treated bare steel, aluminum, fiberglass and plastic.

Preparation of Substrate

In all cases, wash all surfaces to be painted with soap and water, then apply the appropriate OneChoice® Cleaner Ensure that the substrate is thoroughly cleaned and dried both before and after preparation work.

Original Paintwork should be sanded using European P400 / U.S. 360 grit discs (dry) or European P600 / U.S. 400 grit paper (wet). Exposed metal should be spot-primed with a suitable bare metal primer (see below).

Aluminum, Bare Steel and Galvanized Steel must be clean, rust-free and abraded thoroughly using European P180 / U.S. 180 to European P280 / U.S. 240 grit paper (wet).These substrates must be primed with SX1071 Etch Primer. Additional film build over etch primers is strongly recommended, a minimum of 1.5 mils of the A-Chromatic LV Sealer must be applied in two coats.

Electrodeposition Primer must be thoroughly cleaned and may then be directly overcoated with the A-Chromatic LV Sealer as a Wet-on-Wet Sealer without abrading.

Polyester Body Fillers should be dry sanded using European 280 / U.S. 240 grit paper.

Fiber Glass and SMC should be dry sanded using European P280 / U.S. 240 grit paper.

Plastic should be dry sanded with European P600 / U.S. 400 (use a finer grit for softer plastics) and primed first with a PPG Plastic Adhesion Promoter.

Designed for use with
ENVIROBASE®
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APPLICATION GUIDE

Mixing Ratio

ECS2X LV Sealer :	**4 Vols.**
EH391/EH392 Hardener :	**1 Vol.**
D87XX Thinners :	**1 Vol.**

Thinner Selection

D8764 : Fast Compliant Thinner
D8774 : Medium Compliant Thinner
D8767 : Slow Compliant Thinner

Potlife

1 hour @ 70˚F (21˚C)

Additives

SLV814 Universal Flexibilizer	**Ready-to-Spray ECS2X LV Sealer:**	**10 Vols**
	SLV814:	**1 Vol**

Spraygun set-up

Fluid Tip	1.4 - 1.6 mm or equivalent
Spray Viscosity	20 - 25 seconds #2 Zahn @ 70˚ F (21˚C)

Spray pressure

HVLP at air cap	10 PSI
Conventional at spray gun	40 - 45 PSI

Number of coats

1-2 medium coats

Film build per wet coat	2.5 mils
Dried film build per coat	1.0 mils

Flash off at 20ºC / 68ºF

Between coats	5 - 10 minutes
Before baking	5 - 10 minutes

Before Topcoating

15 minutes @ 70°F (21°C) for 1 coat
30 minutes @ 70°F (21°C) for 2 coats
After 72 hours, sealer must be sanded. If sanded film is below 1 mil, sealer must be reapplied.

Drying times

Dust-free
20ºC / 68ºF — 10 minutes

Dry to handle
20ºC / 68ºF — 1 hour

Tape Time
20ºC / 68ºF — 1½ hours

IR (Infrared)

IR medium wave	10 minutes
IR short wave	5 minutes

Overcoat / Recoat

Envirobase High Performance	15 minutes @ 70°F (21°C) for 1 coat 30 minutes @ 70°F (21°C) for 2 coats After 72 hours, sealer must be sanded. If sanded film is below 1 mil, sealer must be reapplied.
Grade wet *Grade dry*	P1000 / U.S. 500 grade paper P1000 / U.S. 500 grade paper

Performance Guidelines

- The use of HVLP spray equipment can give an increase in transfer efficiency of around 25% depending upon the make and model of equipment use.
- For all substrates except unsanded electrodeposition primer, ensure that the surface is thoroughly sanded to the panel edge or to a distance several centimeters beyond the damaged area, whichever is the smaller.
- Do not attempt spot repair on original or refinish thermoplastic applications, lacquer or 1K finishes.
- Partially used cans of hardener must be carefully closed.

Technical Data

Total dry film build:	
Minimum	25µm / 1.0 mil
Maximum	37µm / 1.5 mils
Film build per wet coat	2.5 mils / 62.5µ
Dried film build per coat	1.0 mils / 25µ
Theoretical coverage *Theoretical coverage in sq.ft./US gal. ready-to-spray (RTS), 1.0 mil dry film thickness*	550 sq.ft. per US gal.
Percent solids by volume RTS	34.5%

RTS Combinations:	**ECS2X: EH391: D8764/74/67**	**ECS2X: EH392: D8764/74/67**	**ECS2X: EH391: D8764/74/67 + SLV814**	**ECS2X: EH392: D8764/74/67 + SLV814**
Volume Ratio:	4 : 1 : 1	4 : 1 : 1	4 : 1 : 1 + 10%	4 : 1 : 1 + 10%
Applicable Use Category	Primer	Primer	Primer	Primer
VOC Actual (g/L)	95	111	90	105
VOC Actual (lbs/gal)	0.80	0.93	0.75	0.87
VOC Regulatory (less water less exempt) (g/L)	218	246	210	236
VOC Regulatory (less water less exempt) (lbs/gal)	1.82	2.05	1.75	1.97
Density (g/L)	1372 - 1431	1365 - 1424	1359 - 1412	1352 - 1405
Density (lbs/gal)	11.45 – 11.94	11.39 – 11.88	11.34 – 11.78	11.28 – 11.72
Volatiles wt. %	57.4 – 59.4	57.3 – 59.3	58.7 – 60.5	58.6 – 60.4
Water wt. %	0.0	0.0	0.0	0.0
Exempt wt. %	50.5 – 52.7	49.3 – 51.5	52.1 -54.1	51.0 – 52.9
Water vol. %	0.0	0.0	0.0	0.0
Exempt vol. %	56.6	55.0	57.3	55.8

A-Chromatic Gray Mixing Chart — A-Chromatic Sealers

This chart can be used to mix the A-Chromatic Sealer. The G1 – G7 ratios will help to achieve better hiding when used as a guide for mixing the A-Chromatic Sealer.

Mix Ratio By Volume			Mix Ratio By Cumulative Weight							
			Grams				Parts			
	Mix Ratio		¼ Pint	½ Pint	Pint	Quart	¼ Pint	½ Pint	Pint	Quart
G1	ECS21	4	118	236	473	945	133	266	532	1064
	EH391	1	143	286	572	1144	161	322	644	1288
	D87XX	1	167	334	667	1334	188	376	751	1503
G2	ECS21	Mix By Weight Only	110	220	440	880	124	248	496	992
	ECS25		116	232	464	928	131	262	523	1047
	EH391		141	282	564	1128	159	318	636	1272
	D87XX		167	334	668	1336	188	377	753	1507
G3	ECS21	3	89	177	354	709	99	199	399	798
	ECS25	1	118	236	472	946	133	266	532	1063
	EH391	1	143	286	572	1143	160	321	644	1287
	D87XX	1	167	333	667	1333	188	376	751	1501
G4	ECS21	2	59	118	236	473	67	133	266	532
	ECS25	2	118	236	472	944	133	266	532	1063
	EH391	1	143	286	571	1142	161	322	643	1287
	D87XX	1	167	333	666	1333	188	375	751	1501
G5	ECS25	4	118	236	471	942	133	265	531	1062
	EH391	1	143	285	570	1141	161	321	643	1285
	D87XX	1	166	333	666	1331	187	375	750	1500
G6	ECS25	3	88	177	353	707	99	199	398	796
	ECS27	1	118	235	470	940	132	265	530	1059
	EH391	1	142	285	569	1139	160	321	641	1283
	D87XX	1	166	332	665	1329	187	374	741	1497
G7	ECS27	4	117	233	467	934	131	263	526	1052
	EH391	1	142	283	566	1132	159	319	638	1275
	D87XX	1	165	331	661	1322	186	372	745	1490

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 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 rained 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.

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