

2.1 Polyurethane Primer

ESU410

ESU410 is a 2.1 VOC heavy metal free polyurethane primer. It is gray in color and provides excellent adhesion over a wide variety of substrates. The primer can be topcoated in an hour, making it a productive choice.

Additional Products

- | | |
|----------------------------------|--------|
| • 2.1 Primer Hardener | ESU419 |
| • Primer Accelerator | ESX590 |
| • Exempt Reducer | ESR300 |
| • Exempt Reducer
Warm Weather | ESR310 |

Compatible Surfaces

ESU410 may be applied over:

- Properly prepared steel
- Properly prepared aluminum
- Properly prepared galvanized steel
- Properly prepared fiberglass
- Properly prepared OE enamel finishes
- ESU400 Wash Primer

If sanding bare metal prior to application of ESU410, use 180-220 grit wet or dry. Sand old finishes with 280 to 400 grit wet or dry.

Selection Of Substrate Cleaner - ONECHOICE[®] 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:



- Wash the area to be painted with soap and water, and then clean with CFX435LV, CFX436 or CFX437 cleaner.



- Sand substrates, then re-clean with CFX435LV or CFX436 cleaner.



- Prime substrates immediately after cleaning

Mixing Ratio:



5 : ESU410
1 : ESU419
6 oz. per RTS gal. : ESX590*

* Only add ESX590 when ready to apply.
Do not pre-add accelerator to the ESU410.

Pot Life:



½ hour at 70°F (21°C)
To extend potlife up to 1 ½ hours, thin ready-to-spray ESU410 10% by volume with ESR300 or ESR310 exempt reducer.

Additives:



*ESX590 Accelerator must be added at 6 oz. per RTS gallon.

Spraygun set-up:



	HVLP	Conventional
Fluid Tip	1.2-1.5 mm or equivalent	1.3-1.8 mm or equivalent
Air Pressure	8-10 PSI at the air cap or per MFG recommendation	35-50 PSI at the gun

Pressure Pot Setup: Adjust from here for best results



	HVLP	Conventional
Fluid Tip	1.0-1.4 mm	1.0-1.4 mm
Air Pressure	10-12 fluid ounces per minute	10-12 fluid ounces per minute

Number Of Coats:



1-2 coats

Film Build:

	Wet Film (per coat)	Dry Film (Total)
Minimum	1.5-2.0 mils	1.2 mils
Maximum		1.2 - 2.0 mils

Flash Time at 70°F (21°C):



Between coats	10-15 minutes
Prior to force dry	10-15 minutes

Dry Times:



To Touch:	45 minutes @ 70°F (21°C)
To Handle:	2 hours @ 70°F (21°C)
To Tape:	6-8 hours @ 70°F (21°C)
Force Dry:	20 minutes @ 140°F (60°C)

Recoat/Topcoat: Minimum 1 hour @ 70°F (21°C)
Maximum 4 days @ 70°F (21°C)

After 4 days, sand ESU410 with 400 grit (wet or dry) before proceeding to the next undercoat or topcoat.

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.

Test Properties: (with no additional reducer)

Color	Gray
VOC/Gal. of coatings solids	2.75 lbs (5 : 1 : 6 oz/RTS gal)
Volume Solids (RTS)	65.8% (5 : 1 : 6 oz/RTS gal)

Theoretical Coverage:

922 - 954 sq. ft. @ 1 mil applied 5:1:6 oz/RTS gallon

Sq. Ft. /US gal. Ready-to-spray (RTS), giving 1mil. (25µm) dry film thickness (assuming 100% Transfer Efficiency)

Application Guide (Continued)

RTS Combinations:	ESU410 : ESU419 + ESX590	ESU410 : ESU419 + ESX590 + optional 10% ESR300 or ESR310
Volume Ratio:	5 : 1 + 6 oz	5 : 1 + 6oz + 10%
Applicable Use Category	Primer	Primer
VOC Actual (g/L)	217	201
VOC Actual (lbs/gal)	1.81	1.68
VOC Regulatory (less water less exempt) (g/L)	237	237
VOC Regulatory (less water less exempt) (lbs/gal)	1.98	1.98
Density (g/L)	1466	1436 – 1442
Density (lbs/gal)	12.23	11.98 – 12.03
Volatiles wt. %	19.5	23.9 – 24.4
Water wt. %	0.2	0.2
Exempt wt. %	4.5	9.8 – 10.4
Water vol. %	0.2	0.2
Exempt vol. %	8.4	15.1

Health and Safety:

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

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

EMERGENCY MEDICAL OR SPILL CONTROL INFORMATION (412) 434-4515; IN CANADA (514) 645-1320 AND MEXICO 01-800-00-21-400.

Materials described are designed for application by professional, trained personnel using proper equipment and are not intended for sale to the 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 Industries
Commercial Coatings
19699 Progress Drive
Strongsville, OH 44149
1-800-647-6050

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