Commercial Performance Coatings

CPCPB201

Acrylic Urethane Enamel

AUE-100/AUE-100LG

AUE-100 Acrylic Urethane Enamel is recommended for interior and exterior use on properly prepared and primed steel, aluminum and other firm surfaces where excellent chemical resistance, color and gloss retention are required.

AUE-100 Acrylic Urethane Enamel is available in high and low gloss bases. Intermixing various combinations yields a wide range of gloss options. It also provides strong performance properties, including excellent flow and leveling, film hardness and exterior durability.

Features and benefits:

- Intermixable high and low gloss resins
- Excellent corrosion and chemical resistance
- Excellent gloss and color retention

Associated Products:

- AUE-100 Acrylic Urethane Enamel
- AUE-100LG Low Gloss Acrylic Urethane Enamel
- AUE-101 Urethane Catalyst
- Solvents: Q60 MEK
  Q70 MAK
  Q80 Xylene

Physical Constants:

All values are theoretical, depend on color and are Ready-to-Spray. Actual values could vary slightly due to manufacturing variability.

	AUE-100 color : AUE-101	AUE-100 color : AUE-101 + 20% Q60, Q70, or Q80	AUE-100LG color : AUE-101	AUE-100LG color : AUE-101 + 20% Q60, Q70, or Q80
Weight per gallon (US)	8.18 – 10.98 lbs/gal	7.92 – 9.91 lbs/gal	8.31 – 10.58 lbs/gal	8.03 – 9.99 lbs/gal
Percent solids (by weight)	41.7 – 58.5%	35.5 – 51.8%	42.2 – 58.4%	35.6 – 51.8%
Percent solids (by volume)	35.5 – 42.1%	29.7 – 35.1%	34.7 – 41.3%	29.0 – 34.4%
VOC	4.32 – 4.86 lbs/gal (RTS)	4.71 – 5.24 lbs/gal	4.37 – 4.92 lbs/gal (RTS)	4.75 – 5.28 lbs/gal
HAPs	≤1.0 lbs/gal	≤2.0 lbs/gal	≤1.0 lbs/gal	≤1.9 lbs/gal
Photo-chemically reactive	Yes	Yes	Yes	Yes

Flashpoint: AUE-100 = 63°F (17°C), AUE-100LG = 63°F (17°C), AUE-101 = 80°F (27°C), Q60 = 21°F (-6°C), Q70 - 102°F, (39°C) Q80 - 81°F (27°C)

Directions for Use:

Substrate Preparation: The surface to be coated must be sanded and free of all contamination (including dust, dirt, oil, grease, and oxidation). Chemical treatment and the use of a conversion coating will improve adhesion and performance properties of the coating system. We recommend that adhesion and system compatibility be checked prior to full application.

Substrate	Application Recommendation
Cold Rolled Steel	No direct to metal application. Refer to CPCTB01 for approved primers*
Hot Rolled Steel	No direct to metal application. Refer to CPCTB01 for approved primers*
Galvaneal	No direct to metal application. Refer to CPCTB01 for approved primers*
Galvanized	No direct to metal application. Refer to CPCTB01 for approved primers*
Aluminum	No direct to metal application. Refer to CPCTB01 for approved primers*
Plastic / Fiberglass	Coating system performance must be confirmed on the actual fiberglass substrate being used because of the variability of plastic/fiberglass substrates. Surface must be free of all contamination prior to application of any coating.

* ***Note:*** *For improved performance between this topcoat and CPC primers please see the CPC Primer/Topcoat compatibility chart (CPCTB01).*

PPG

AUE-100/AUE-100LG

Directions for Use (continued)

Mix Directions:

Mix Directions: Thoroughly agitate component A on mechanical shaker prior to mixing. Stir thoroughly before and occasionally during use.

AUE-100 (percentage of binder in mix)	AUE-100LG	60° Gloss Range
100%	0	85 – 95
70%	30%	65 – 85
50%	50%	40 – 65
30%	70%	20 – 40
0	100%	5 – 20

NOTE: Moisture contamination in components can result in poor properties of applied films or gelling of the material. Do not open until ready to use.

Thinning: AUE-100 and AUE-100LG can be thinned up to 20% with Q60 (MEK), Q70 (MAK), or Q80 (Xylene).

	AUE-100 : AUE-101	AUE-100LG : AUE-101
Blend Ratio:	7 : 1	7 : 1
	Packaged as a Kit	
Pot Life @ 77°F (25°C):	1 – 2 hours	1 – 2 hours
Spray Viscosity Range:	#2 EZ Zahn - 25 – 35 seconds	#2 EZ Zahn - 25 – 35 seconds
Unopened Shelf Life: (each component)	4 years gallon, 2 years pails 1 year drums	4 years gallon, 2 years pails, 1 year drums
	AUE-101: Unopened = 2 years, opened = 14 days	

Application Equipment:

Conventional (with or without Pressure Pot):	1.4 – 1.8 mm needle/nozzle with 50 – 70 psi at the gun
HVLP (with or without Pressure Pot):	1.3 – 1.6 mm needle/nozzle with 10 psi output at the gun
Airless:	No Recommendation
Air-Assisted Airless:	No Recommendation
Brush or Roll:	No Recommendation
Electrostatic:	No Recommendation

Application:

Apply:	1 – 2 medium coats with 10 – 15 minute flash. Apply only when air, product and surface temperature is above 60°F (16°C) and when surface temperature is at least 5°F (3°C) above the dew point.
Recommended Wet Film Build:	3.0 – 4.5 mils
Recommended Dry Film Build:	1.0 – 1.5 mils
Coverage:	556 – 675 sq. ft. @ 1.0 mil dry film per U.S. gallon - depending on color.

Dry Times:

Air Dry @ 77°F (25°C) 50% RH*:

Dry to Touch	30 – 60 minutes
Dry to Handle	4 hours**
To Recoat	4 hours – 4 days

Force Dry: @ 140°F (60°C)	20 minutes after 10 minute flash

* *Drying time may be accelerated with up to 6oz of UA-11 per gallon.*

** *Paint film is not fully cured for 7 days. Drying time listed may vary, depending upon film build, color selection, temperature, humidity and degree of air movement.*

AUE-100/AUE-100LG

Technical Data*

Performance Properties:

System: Bonderite 1000 AUE-100 or AUE-100LG (ranges from testing white and black)

Test	ASTM Method	AUE-100	AUE-100LG
Gloss @ 60° Angle**	D523	85 – 90	5 – 15
Pencil Hardness	D3363	HB – F	F
Conical Mandrel	D522	Pass	Pass
Adhesion	D3359	5B	5B
Gravelometer	D3170	7	7
In Service Temperature Limit†		300°F (149°C)	300°F (149°C)

***AUE-100 and AUE-100LG may be blended together to achieve intermediate gloss levels.*

†*As you approach 300°F (149°C) depending on the pigmentation, the color may change, but the film integrity will be maintained up to 300°F (149°C).*

Chemical Resistance:

Product applied direct to cleaned Bonderite 1000 steel

Chemical ASTM D1308	AUE-100	AUE-100LG
Toluene	Ring	Ring
10% NaOH (Sodium Hydroxide)	Blisters	Blisters
10% HCl (Hydrochloric acid)	Pass	Pass
10% H_2SO_4 (Sulphuric acid)	Pass	Pass
Gasoline	Ring, Yellowing	Ring, Yellowing
Isopropyl Alcohol	Ring	Ring
Water††	Pass	Pass

†† *Although resistant to intermittent exposure, not recommended for immersion.*

Weather Resistance:

System (Salt and Humidity): Bonderite 1000 EPX-900 AUE-100 or AUE-100LG

QUV System: Bonderite 1000 AUE-100 or AUE-100LG

	ASTM Method	AUE-100	AUE-100LG
Salt Spray – 1000 hours	B117		
Corrosion Creep	D1654	4A – 5A	4A
Scribe Blisters	D714	8D, 6D. 4M	6D, 4M
Face Blisters	D714	None	None
Humidity – 100 hours	D2247		
5 Minute Recovery Adhesion	D3359	5B	4B – 5B
1 Hour Recovery Adhesion	D3359	5B	4B – 5B
24 Hour Recovery Adhesion	D3359	5B	4B – 5B
QUV-UVA: 60° angle	D4587		
250 hour retention	D523	94 – 98%	93 – 96%
500 hour retention	D523	87 – 90%	85 – 90%

All tests results assume proper cure and preparation of test substrates. Unless otherwise stated, all results were obtained spraying product direct to metal on Bonderite 1000.

* The application and performance property data above are believed to be reliable based on laboratory findings. It is for the buyer to satisfy itself on the suitability of the product for its particular use. Variation in environment, procedures of use, or extrapolation of data may cause unsatisfactory results.

Miscellaneous:

AUE-100/AUE-100LG Acrylic Urethane Enamel

Safety:

These materials are designed for application only by professional, trained personnel, using proper equipment under controlled conditions and are not intended for sale to the general public.

Safe application of paints and coatings requires knowledge of equipment, materials and individual training. Directions and precautionary information on both equipment and products should be carefully read and strictly observed for personal safety and property protection. Consideration must be given to eliminate conditions, which may generate hazardous atmospheres during spray application or subject operators or bystanders to injury or illness.

Special precautions must be taken when utilizing spray equipment, particularly airless equipment. High-pressure injection of coatings into the skin by airless equipment may cause serious injury requiring immediate medical attention at a hospital. Treatment advice may also be obtained from Poison Centers.

Air quality should be maintained with adequate ventilation; applicators can achieve additional protection by wearing respirators and other protective garments such as gloves and overalls. In all cases, wear protective eye equipment. During the application of all coatings materials, all flames, welding and smoking must be prohibited. Explosion proof equipment must be used when coating these materials in confined areas.

PRECAUTIONARY INFORMATION

Before using the products listed herein, carefully read each product label and follow directions for its use. Please read and observe all warnings and precautionary information on all product labels. Prevent all contact with skin and eyes and breathing of vapors and spray mist. Repeated inhalation of high vapor concentrations may cause a series of progressive effects including irritation of the respiratory system, permanent brain and nervous system damage and possible unconsciousness and death in poorly ventilated areas. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

KEEP OUT OF THE REACH OF CHILDREN

MEDICAL RESPONSE

Emergency Medical or Spill Control Information (412) 434-4515; CANADA (514) 645-1320
Have label information available.

Material Safety Data Sheets for the PPG products mentioned in this publication are available through your PPG Distributor.

For additional information regarding this product, see the MSDS AND LABEL information.

PPG Commercial Coatings
Bringing innovation to the surface.™

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