

# AUE-100 Series

## Acrylic Urethane Enamel

### Product data sheet

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.

### Product highlights

- Excellent color and gloss retention
- Very good chemical and mar resistance
- Intermixable high and low gloss resins
- Available in a wide range of colors

### Associated product codes

- AUE-100: Acrylic Urethane Enamel
- ALK-100LG: Low Gloss Acrylic Urethane Enamel
- AUE-100WHT: Acrylic Urethane Enamel White
- AUE-101: Urethane Hardener

Physical constants <sup>1</sup>	AUE-100 Series w/AUE-101	AUE-100LG w/AUE-101
Solids % by weight	50.1 ± 8.4	50.1 ± 8.1
Solids % by volume	38.4 ± 3.7	38.0 ± 3.3
HAPs	<1.0 lbs./gal. (120 g/L)	<1.0 lbs./gal. (120 g/L)
Photo-chemically reactive	Yes	Yes
Weight/Gallon	8.2 - 11.0 lbs. /gal. (984 – 1320 g/L)	8.3 – 10.6 lbs. /gal. (996 – 1272 g/L)
VOC Max (less exempts)	5.0 lbs./gal. (600 g/L)	5.0 lbs./gal. (600 g/L)
VOC Max (actual)	5.0 lbs./gal. (600 g/L)	5.0 lbs./gal. (600 g/L)

## 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 the performance properties of the coating system. We recommend that adhesion and system compatibility be checked prior to full application.

Substrate	Application Recommendations: Direct to Properly Cleaned Substrate
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	No direct to metal application. Refer to CPCTB01 for approved primers

<sup>1</sup> All values are theoretical, depend on color and are ready to spray. Actual values could vary slightly due to manufacturing variability. Constants vary from color to color.

## Directions for use (continued)

### Mix directions

Mix Directions	Stir thoroughly before and occasionally during use
Thinning	Q30, Q50, Q160, Q70 or Q80 as needed
Line/Flush Clean Up	Q60 or Q30
<b>AUE-100 Series w/AUE-101</b>	
Blend Ratio	7:1
Pot Life	1 - 2 Hours

### Application equipment\*

	Application	Application Viscosity
Conventional Cup Gun	1.4 – 1.8 mm needle/nozzle with 40 – 60 psi at the gun	25 - 35" #2 EZ Zahn
Conventional Pressure Pot	1.4 – 1.8 mm needle/nozzle with 40 – 60 psi at the gun 10 - 20 psi fluid pressure	30 - 40" #2 EZ Zahn
HVLP (with or without pressure pot)	1.4 – 1.8 mm needle/nozzle with 10 psi at the cap	25 - 35" #2 EZ Zahn
Airless	0.012" – 0.015" tip at 1700 – 2400 psi fluid pressure	40 - 55" #2 EZ Zahn
Air-Assisted Airless	0.011" – 0.015" tip at 1000 - 1500 psi fluid pressure	35 - 50" #2 EZ Zahn
Brush or Roll	Not Recommended	
Electrostatic	Not Recommended	

\*For additional application information, refer to product application guide

### Application

<b>AUE-100 Series w/AUE-101</b>	
Apply	1 - 2 Coats with 10 min flash
Recommended Wet Film Build	3.0 - 6.0 mils (76 - 152 microns)
Recommended Dry Film Build	1.0 - 2.0 mils (25 - 51 microns)
Coverage (at 1 mil no loss)	556 - 682 sq. ft/gal (52 - 63 meters sq./3.785L)

### Dry times

Air Dry @77°F (25°C) 50% RH <sup>2</sup>	
To Touch	30 – 60 minutes
To Handle	4 hours*
To Recoat	Between 4 hours and 4 days
Force Dry	10 minutes air dry, bake 20 min @ 140°F (60°C)

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

### Technical data<sup>3</sup>

#### Performance properties

Test	ASTM Method	AUE-100	AUE-100LG
Pencil Hardness	D3363	HB - F	F
Gravelometer	D3170	7	7
Gloss @ 60°	D523	85 - 90	5 - 15
Adhesion	D3359	5B	5B
In Service Temperature Limit <sup>4</sup>	–	300°F (149°C)	300°F (149°C)

#### Chemical Resistance

Test	ASTM Method	AUE-100	AUE-100LG
MEK	D1308	Ring	Ring
10% NaOH (Sodium Hydroxide)	D1308	Blisters	Blisters
10% HCl (Hydrochloric acid)	D1308	Pass	Pass
10% H <sub>2</sub> SO <sub>4</sub>	D1308	Pass	Pass
Gasoline	D1308	Ring, yellowing	Ring, Yellowing
Water <sup>5</sup>	D1308	Pass	Pass

#### Weather resistance

Test	ASTM Method	AUE-100	AUE-100LG
<b>Salt Spray 1,000 hours (w/EPX-900 primer)</b>	<b>B117</b>		
Corrosion Creep	D1654	4A - 5A	4A
Scribe Blisters	D714	8D, 6D, 4M	6D, 4M
Face Blisters	D714	None	None
<b>Humidity 100 hours (w/EPX-900 primer)</b>	<b>D2247</b>		
5 Minute Adhesion Recovery	D3359	5B	4B – 5B
1 Hour Adhesion Recovery	D3359	5B	4B - 5B
24 Hour Adhesion Recovery	D3359	5B	4B - 5 B
<b>QUV-B: 60° angle (direct to Bonderite 1000)</b>	<b>D4587</b>		
200 hour gloss retention	D523	94 - 98%	93 - 96%
500 hour gloss retention	D523	87 - 90%	85 - 90%

<sup>3</sup> The application and performance property data above is 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 may cause unsatisfactory results. All test results assume proper cure and preparation of test substrates. Unless otherwise stated, all results were obtained spraying product direct to metal on BONDERITE® 1000.

<sup>4</sup> As you approach 150° F depending on the pigmentation, the color may change, but the film integrity will be maintained up to 300°F.

<sup>5</sup> Although resistant to intermittent exposure, not recommended for immersion.

## 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 operations 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 coating 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 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: US (412) 434-4515; Canada (514) 645-1320; and Mexico 01-800-00-21-400. Please have label information available.

Safety Data Sheets (SDS) for the PPG products mentioned in this publication are available through [versolon.com](https://www.versolon.com) (Safety, SDS Search) or through your PPG store or distributor. For additional information regarding this product, see the SDS and label information.

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