

2K High Solids Urethane

AUE-360

AUE-360 is a 2-component high solids polyurethane offering excellent exterior durability, mar and chemical resistance, QUV resistance, and a high film build capability with one pass coverage. AUE-360 can be combined with the low gloss version, AUE-360LG, to achieve intermediate gloss levels.

It is recommended for industrial use on properly pre-treated or primed metal surfaces. Example applications include metal fabrication, castings, machinery, agriculture, and construction equipment.

Under some specifications, this product is also known as SPECTACRON 360.

Features and benefits:

- Excellent chemical, QUV, mar, chip, and abrasion resistance
- Excellent hardness, gloss, and color retention
- Intermediate gloss levels possible
- Plural component capable with no accelerator required

Associated Products:

- AUE-360 2K High Solids Urethane
- AUE-3501 2K High Solids Urethane Hardener
- GXH1086 Urethane Hardener
- GXH1080 Urethane Hardener
- AUE-360UV 2K High Solids Urethane w/ Additional UV Protection (PPG Blend Center only)

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

	AUE-360 w/ tints	AUE-360 w/ AUE-3501	AUE-360 w/ GXH1086	AUE-360 w/ GXH1080
Percent solids (by weight)	55.9 – 72.0%	64.0 – 76.2%	62.2 – 74.4%	60.9 – 73.4%
Percent solids (by volume)	49.1 – 57.5%	57.3 – 64.3%	55.2 – 62.0%	54.0 – 57.5%
HAPs	≤ 0.1 lbs/gal	≤ 0.1 lbs/gal	≤ 0.1 lbs/gal	≤ 0.1 lbs/gal
Photo-chemically reactive	No	No	No	Yes
Volume Ratio	As is	5 : 1	4 : 1	4 : 1
Applicable Use Category	Single-Stage Coating	Single-Stage Coating	Single-Stage Coating	Single-Stage Ctg
VOC Actual	362 – 454 (g/L) 3.03 – 3.79 (lbs/gal)	302 – 379 (g/L) 2.52 – 3.16 (lbs/gal)*	320 – 393 (g/L) 2.67 – 3.28 (lbs/gal)*	333 – 407 (g/L) 2.78 – 3.40 (lbs/gal)
VOC Regulatory (less water less exempt)	362 – 454 (g/L) 3.03 – 3.79 (lbs/gal)	302 – 379 (g/L) 2.52 – 3.16 (lbs/gal)	320 – 393 (g/L) 2.67 – 3.28 (lbs/gal)	334 – 407 (g/L) 2.79 – 3.40 (lbs/gal)
Density	1021 – 1353 (g/L) 8.51 – 11.28 (lbs/gal)	1046 – 1323 (g/L) 8.72 – 11.03 (lbs/gal)	1038 – 1303 (g/L) 8.65 – 10.86 (lbs/gal)	1036 – 1301 (g/L) 8.64 – 10.85 (lbs/gal)
Volatiles wt. %	28.0 – 44.1	23.9 – 35.9	25.6 – 37.7	26.7 – 39.0
Water wt. %	0.0 – 0.2	0.0 – 0.2	0.0 – 0.2	0.0 – 0.2
Exempt wt. %	0.0	0.0	0.0	0.0
Water vol. %	0.0 – 0.3	0.0 – 0.2	0.0 – 0.2	0.0 – 0.2
Exempt vol. %	0.0	0.0	0.0	0.0

Flashpoint

AUE-360 only – 76°F, AUE-3501 only - 355°F
GXH1086 only - 102°F, GXH1080 only - 81°F

*2.8 lbs/gal VOC can only be achieved with certain colors at the lowest tint load.

AUE-360

Directions for Use (continued)

Substrate Preparation:

The surface to be coated must be sanded and free of all contamination (including dust, dirt, oil, grease, and oxidation). A chemical treatment (or conversion coating) will improve adhesion and performance properties of the finished coat. Variability can occur with substrates, preparation, application method or environment. We recommend that adhesion and system compatibility be checked prior to full application.

Substrate	Direct to properly treated substrate
Cold Rolled Steel	Refer to CPCTB01 for approved primers.
Hot Rolled Steel	Refer to CPCTB01 for approved primers.
Galvaneal	Refer to CPCTB01 for approved primers.
Galvanized	Refer to CPCTB01 for approved primers.
Aluminum	Refer to CPCTB01 for approved primers.
Plastic / Fiberglass	Surface should be free of all contamination. Because of the variability of plastic/ fiberglass substrates, coating performance should be confirmed on the actual plastic/fiberglass substrate being used.

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

Mix Directions:

Mix Directions: Thoroughly agitate component A on mechanical shaker prior to mixing. Stir thoroughly before and occasionally during use. Do not use an accelerator. Mixed product not intended for immediate use should be kept in a lined container.



Thinning: Not recommended in VOC compliant areas. In non-regulated areas, up to 10% of Q70 (MAK), or Q60 (MEK) can be added. In VOC regulated areas, Q30 (Acetone) may be utilized.



Blend Ratio:	AUE-360 : AUE-3501	AUE-360 : GXH1086	AUE360 : GXH1080
	5 : 1	4 : 1	4 : 1



Pot Life @ 77°F (25°C):	2 – 3 hours	1 – 2 hours	1.5 – 2.5 hours
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Spray Viscosity Range: #3 Zahn 20 – 35 seconds, depending on color

Unopened Shelf Life:
(each component) AUE-360 - 4 years unopened
Hardeners - 2 years unopened

Application Equipment:



Conventional (with or without Pressure Pot): 1.3 – 1.7 mm needle/nozzle with 40 – 50 psi at the gun



HVLP (with or without Pressure Pot): 1.3 – 1.5 mm needle/nozzle with 10 psi at the gun



Airless: No recommendation

Air-Assisted Airless: No recommendation

Brush or Roll: This product can be brushed or rolled

Electrostatic: 1.2 – 1.6 mm @ maximum pressure recommended by manufacturer

Application:

Apply: 1 – 2 medium coats with a 10 – 15 minute flash. Apply only when air, product and surface temperature are above 50°F (10°C) and the surface temperature is at least 5°F (3°C) above the dew point.



	AUE-360 w/AUE-3501	AUE-360 w/GXH1086	AUE360 w/GXH1080
Recommended Wet Film Build:	2.5 – 4.5 mils	2.5 – 4.2 mils	2.5 – 4.2 mils
Recommended Dry Film Build:	1.5 – 2.5 mils	1.3 – 2.5 mils	1.3 – 2.5 mils
Square Foot Coverage @ 1 mil no loss:	919 – 1,031	885 – 994	866 – 922

Dry Times:

Air Dry @ 77°F 50% RH:



	AUE-360 w/AUE-3501	AUE-360 w/GXH1086	AUE360 w/GXH1080
To Touch:	1 – 2 hours	1 – 2 hours	1 – 2 hours
To Handle:	4 hours*	4 hours*	4 hours*
Recoat:	1 hour – 24 hours**	1 hour – 24 hours**	1 hour – 24 hours**



Force Dry: After 10 minutes flash, bake @ 180°F for 20 minutes

* 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.

** After this time, the topcoat must be abraded prior to recoating.

AUE-360

Technical Data*

Performance Properties:

System:
BONDERITE® 1000
AUE-360/AUE-3501

Test	ASTM Method	Results	
		White	Black
Gloss @ 60° Angle	D523	87	90
Pencil Hardness	D3363	F	F
Conical Mandrel	D522	Pass	Pass
Adhesion	D3359	5B	5B
Chip Resistance	D3170	8	9
In Service Temperature Limit**		300°F	

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

Chemical Resistance:

System:
Bonderite 1000
AUE-360/AUE-3501

Chemical	ASTM Method	Results	
		White	Black
Toluene	D1308	Slight Ring	Slight Ring
10% NaOH (Sodium Hydroxide)	D1308	Pass	Pass
10% HCl (Hydrochloric acid)	D1308	Pass	Pass
10% H ₂ SO ₄ (Sulphuric acid)	D1308	Pass	Pass
Gasoline	D1308	Mild Ring, Lift, Yellowing	Slight Ring
Isopropyl Alcohol	D1308	Slight Ring	Slight Ring
Water†	D1308	Pass	Pass

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

Weather Resistance:

System (Salt and Humidity):
Bonderite 1000
W43181A
AUE-360/AUE-3501

	ASTM Method	Results	
		White	Black
Salt Spray – 1000 hours	B117		
Corrosion Creep	D1654	5A	5A
Scribe Blisters	D714	4F	4F
Face Blisters	D714	8D	8D
Humidity – 1000 hours	D2247		
5 Minute Recovery Adhesion	D3359	5B	5B
1 Hour Recovery Adhesion	D3359	5B	5B
24 Hour Recovery Adhesion	D3359	5B	5B
QUV-UVA: 60° angle ††	D4587		
200 hour retention	D523	100%	100%
500 hour retention	D523	100%	100%
QUV-UVB: 60° angle ††	D4587		
200 hour retention	D523	93%	98%
500 hour retention	D523	85%	94%

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.

†† Additional QUV resistance can be obtained by purchasing AUE-360UV from the PPG Blend Center. Please consult your sales representative for specific properties, blend ratio, etc.

Miscellaneous:

Product must be stored in lined containers.

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 and in MEXICO 01-800-00-21-400. Have label information available.



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.



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