



DTM Polyurethane

AUE-370/AU37-FP908 FP Black

AUE-370 and AU37-FP908 FP Black are surface tolerant, high solid, high build, two component acrylic urethanes formulated for direct-to-metal applications¹. AUE-370 and AU37-FP908 FP Black may also be used over approved primers.

These products are easy to mix and apply for airless, air-assisted airless and conventional spray applications.

These products are compliant for application in areas with VOC requirements of a maximum of 2.8 lbs/gal (340 g/l) when using AUE-3501 hardener. Alternative hardener and accelerator packages could exceed.

¹H-Series Aluminum tints can only be used in AUE-370 when applied over a primed or old finish, not direct to metal (DTM) application.

Features and Benefits:

- Apply direct-to-metal¹
- Airless or Air-assisted application capable
- Electrostatic application capable
- 2.8 VOC capable

Associated Products:

- AUE-3501, 2K High Solids Urethane Hardener
- GXH1086, Urethane Hardener
- UA-11, Urethane Accelerator

Exempt Solvents

- Q30 – Acetone
- TFS321-50 Exempt Reducer
- OXSOL[®] solvent

Non-Exempt Solvent Addition results in VOC greater than 2.8 lbs/gal

- Q70 – MAK

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

	With AUE-3501		With GXH1086		
Percent solids (by weight)	61.1– 70. 04%		59.5–68.8%		
Percent solids (by volume)	58.2- 63.6%		56.2- 61.3%		
HAPs	≤0.1 lb/gal		≤0.1 lb/gal		
Photo-chemically reactive	No		No		
Flashpoint: AUE-370 = 86°F (30°C), GXH1086 = 102°F (39°C), UA-11 = 96°F (36°C), Q30 = 4°F (-6°C), Q70 = 102°F (39°C)					
RTS Combinations:	AUE-370/AU37-FP908 w/ tints only	AUE-370 /AU37-FP908 w/tints: AUE-3501	AUE-370/AU37-FP908 w/tints: AUE-3501 + UA-11**	AUE-370/AU37-FP908 w/ tints: GXH-1086**	AUE-370/AU37-FP908 w/ tints: GXH-1086 + UA-11**
Volume Ratio:	As is	5 : 1	5 : 1 + 6 oz	4 : 1	4 : 1 + 6 oz
Applicable Use Category	Single-Stage Coating	Single-Stage Coating	Single-Stage Coating	Single-Stage Coating	Single-Stage Coating
VOC Actual	284 – 357 g/L 2.37 – 2.99 lbs/gal	237 – 298 g/L 1.98 – 2.48 lbs/gal	264 – 323 g/L 2.20 – 2.69 lbs/gal	258 -316 g/L 2.15 – 2.64 lbs/gal	283 – 340 g/L 2.36 – 2.83 lbs/gal
VOC Regulatory (less water less exempt)	333 – 412 g/L 2.78 – 3.44 lbs/gal	270 – 336 g/L 2.25 - 2.80 lbs/gal	300 – 362 g/L** 2.50 – 3.02 lbs/gal**	292 – 355 g/L** 2.44 – 2.96 lbs/gal**	319 – 379 g/L** 2.66 – 3.16 lbs/gal**
Density	1099 – 1368 g/L 9.17 – 11.42 lbs/gal	1111 – 1336 g/L 9.27 – 11.15 lbs/gal	1105 – 1323 g/L 9.22 – 11.04 lbs/gal	1099 – 1315 g/L 9.17 – 10.98 lbs/gal	1093 – 1301 g/L 9.12 – 10.86 lbs/gal
Volatiles wt.	34.9 – 48.4 %	29.8 – 40.0 %	33.2 - 41.9 %	32.5 – 41.6 %	34.6 – 43.4 %
Water wt.	0.0 – 0.1 %	0.0 – 0.1 %	0.0 – 0.1 %	0.0 – 0.1 %	0.0 – 0.1 %
Exempt wt.	13.2 – 16.4 %	12.6 – 13.5 %	12.2 – 13.1 %	11.9 – 12.7 %	11.9 – 12.7 %
Water vol.	0.0 – 0.1 %	0.0 – 0.1 %	0.0 – 0.1 %	0.0 – 0.1 %	0.0 – 0.1 %
Exempt vol.	13.5 – 14.5 %	11.2 – 12.0 %	10.8 – 11.6 %	10.4 – 11.1 %	10.4 – 11.1 %

* Constants vary from color to color

** Factors that could drive the RTS VOC over 2.8 lbs/gal include: utilization of UA-11 and/or the use of GXH1086 in place of AUE-3501.

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Directions for Use

Substrate Preparation: The surface to be coated must be abraded or sandblasted and free of all contamination (including dust, dirt, oil, grease and oxidation). A chemical treatment (or conversion coating) on non-sandblasted substrates 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.

It is recommended that the substrate be cleaned with SSPC-SP15 Commercial Grade Power Tool cleaning achieving a minimum of 1 mil anchor profile. For best performance, a minimum blast of SSPC-SP6 (NACE#3) Commercial Blast Cleaning is recommended, achieving a minimum of 1-2 mil blast profile.

Substrate	Application Recommendations
Cold Rolled Steel	Direct to substrate - Excellent over properly prepared substrate ²
Hot Rolled Steel	Direct to substrate - Excellent over properly prepared substrates ²
Galvaneal	Direct to substrate - No – Do not use
Galvanized	Direct to substrate - Very Good over properly prepared substrates ²
Aluminum	Direct to substrate - Very Good over properly prepared substrates ²
Plastic / Fiberglass	Coating system performance must be confirmed on the actual plastic/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. <i>Note: For acceptable compatibility between this topcoat and CPC primers please see the CPC Primer/Topcoat compatibility chart (CPCTB01). ² Aluminum tints can only be used in AUE-370 when applied over a primed or old finish, not direct to metal (DTM) application.</i>

Mix Directions:



Mix Directions:

Stir thoroughly before and occasionally during use. Mix component “A” AUE-370 or AU37-FP908 color thoroughly before blending. Once component “B” is added, product must be adequately mixed prior to use. A mechanical mixer is recommended. UA-11 may be added, if desired, up to 6 oz/RTS GAL

Use with adequate ventilation. Keep out of reach of children.

Thinning:

Up to 10% Q30 (Acetone) can be added to RTS AUE-370. Thinning at this ratio does not increase VOC
Up to 10% Q70 (MAK) can be added to RTS AUE-370 where VOC regulations allow. Thinning at this ratio will not exceed 3.5 lbs/gal VOC as applied, however this will increase VOC beyond 2.8 lbs/gal.
Solvent reduction within these guidelines is necessary to achieve the ranges in the following viscosity table.



Blend Ratio:
w/AUE-3501:



Pot Life @ 77°F (25°C):

Spray Viscosity Range:



Blend Ratio:
w/GXH1086:



Pot Life @ 77°F (25°C):

Spray Viscosity Range:

Unopened Shelf Life:
(each component)

Without UA-11		With UA-11		+ 6oz. / RTS Gal of UA-11
AUE-370/AU37-FP908	AUE-3501	AUE-370/AU37-FP908	AUE-3501	
5	1	5	1	
2 – 3 hours		1 – 2 hours		
30 – 40 seconds #3 Zahn EZ		25 – 35 seconds #3 Zahn EZ		
Without UA-11		With UA-11		+ 6oz. / RTS Gal of UA-11
AUE-370/AU37-FP908	GXH1086	AUE-370/AU37-FP908	GXH1086	
4	1	4	1	
2 – 3 hours		1 – 2 hours		
25 – 35 seconds #3 Zahn EZ		20 – 30 seconds #3 Zahn EZ		
2 years		2 years		

Application Equipment:



Conventional/Compliant:
Conventional on Pressure Pot:

1.6 – 2.0 mm fluid tip, 50 - 65 psi
1.3 – 1.8 mm fluid tip, 12 - 20 ounces per minute fluid



HVLP:

1.4 – 1.8 mm fluid tip, maximum psi per gun MFG settings



HVLP on Pressure Pot:

1.3 – 1.8 mm fluid tip, 12 - 20 ounces per minute fluid

Airless:

.013 – .017 fluid tip, 2000 psi and up fluid pressure

Air-Assisted Airless:

.013 – .017 fluid tip, begin at 1400 psi fluid & minimum required air pressure to remove tails from pattern

Brush or Roll:

High Quality Natural Bristle Brush
High Quality 3/8” nap roller cover with a solvent resistant core

Electrostatic:

.011 – .017 nozzle, depending on specific customer and appearance requirements; or as recommended by gun manufacturer. The addition of up to 10% Q70 (MAK) may be necessary for optimal electrostatic application.

Application:



Apply:

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

Recommended
Wet Film Build:

5.0 – 8.5 mils

Recommended
Dry Film Build:

3.0 – 5.0 mils

Coverage:

901- 1020 sq. ft. @ 1.0 mil dry film per U.S. gallon (depending on color)

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Directions for Use (continued)

Dry Times:



Air Dry @ 77°F (25°C) 50% RH:

Without UA-11

With UA-11

To Touch:

3 – 5 hours

1 – 2 hours

To Handle:

8 – 12 hours

2 – 4 hours

Recoat:

Min. When Dry to Handle
Max. 7 days

Min. When Dry to Handle
Max. 7 days

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.

Technical Data*

Performance Properties: *All test properties below were obtained using solid black AUE-370*

Test	ASTM Method	Without UA-11	With UA-11
Pencil Hardness	D3363	H-2H	H-2H
Impact (direct)	D2794	80 in-lbs	80 in-lbs
Mandrel	D522	1/8" No Cracks	1/8" No Cracks
Chip Resistance	3170	8	8
Gloss - 60°	D523	85 - 92	85 - 92
Adhesion	D3359 Method B	5B	5B
In Service Temperature - Dry Environment		250°F (121°C)	250°F (121°C)

Note: As you approach 250°F (121°C) depending on the pigmentation, the color may change, but the film integrity will be maintained up to 250°F (121°C).

Chemical Resistance:

Chemical ASTM D1308	Without UA-11	With UA-11
Xylene	Slight Swell - recovers	Slight Swell - recovers
10% NaOH (Sodium Hydroxide)	No Effect	No Effect
10% HCl (Hydrochloric acid)	No Effect	No Effect
10% H ₂ SO ₄ (Sulphuric acid)	No Effect	No Effect
10% HNO ₃	Slight Stain	Slight Stain
Hydraulic Oil	No Effect	No Effect
Gasoline	Slight Swell - recovers	Slight Swell - recovers
Diesel Fuel	No Effect	No Effect
Water	No Effect	No Effect

Weather Resistance:

	ASTM Method	Without UA-11	With UA-11
Salt Spray – 1000 hours	ASTM B117		
Corrosion Creep	ASTM D1654	7A - 8A	7A - 8A
Face Blisters	ASTM D714	None	None
Adhesion	ASTM D3359 Method B	5B	5B
Humidity – 100 hours	ASTM D2247		
5 Minute Recovery Adhesion	ASTM D3359 Method B	5B	5B
1 Hour Recovery Adhesion	ASTM D3359 Method B	5B	5B
24 Hour Recovery Adhesion	ASTM D3359 Method B	5B	5B
QUV-UVA: 60° angle	ASTM D4587		
500 hour retention	ASTM D523	98%	98%
1000 hour retention	ASTM D523	98%	98%
QUV-UVB: 60° angle	ASTM D4587		
500 hour retention	ASTM D523	90%	90%
1000 hour retention	ASTM D523	65%	65%

All tests results assume proper cure and preparation of test substrates. Unless otherwise stated, all results were obtained spraying product direct to metal on HRS with Commercial Blast Cleaning (SSPC SP6), and product color is black. QUV tests were performed over B1000 steel.

* 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.

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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