



Acrylic Modified Alkyd Enamel

ALK-200

ALK-200 is a fast drying interior/exterior enamel intended for industrial use on properly prepared and/or primed metal surfaces. This topcoat provides a smooth film with excellent hardness in a range of intermediate gloss levels.

Example applications include metal fabrication, castings, cabinets, machinery, and heavy equipment.

Features and benefits:

- Cost-effective performance product
- Fast drying for quick production turnaround
- Available in a wide range of colors and gloss
- Apply direct-to-metal or over a compatible primer
- Lead and chrome free

Associated Products:

- ALK-201 Polyurethane Enhancer (optional)
- DX-10-FLT Flattening Paste (optional)

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

	With ALK-201	Without ALK-201
Weight per gallon (US)	7.97 – 10.22 lbs/gal	7.88 – 10.28 lbs/gal
Percent solids (by weight)	38.29 – 58.32%	34.84 – 56.79%
Percent solids (by volume)	31.75 – 42.15%	28.55 – 39.65%
Flashpoint (ALK-200R only)	50° F (Pensky Martin)	50° F (Pensky Martin)
VOC	4.21 – 5.06 lbs/gal	4.39 – 5.30 lbs/gal
HAPs	Maximum - 3.00 lbs/gal	Maximum - 3.2 lbs/gal
Photo-chemically reactive	Yes	Yes

Directions for Use:

Substrate Preparation:

The surface to be coated must be 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	Very good when proper conversion coatings are applied
Hot Rolled Steel	Very good when proper conversion coatings are applied
Galvaneal	Not Recommended over Zinc Substrates
Galvanized	Not Recommended over Zinc Substrates
Aluminum	Fair when scuff-sanded
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).



ALK-200

Directions for Use (continued)

Mix Directions:



Blend Ratio:	With ALK-201	Without ALK-201
	15 : 1	Ready-to-Spray
Pot Life @ 77°F:	10 hours	N/A
Spray Viscosity Range:	#2 EZ Zahn - 25 – 35 seconds	
Reducers:	10% or less of Xylene (Q80), Aromatic 100 (Q50), or MAK (Q70)	
Unopened Shelf Life: (each component)	2 years	



Application Equipment:



Conventional:	1.3 – 1.6 mm needle/nozzle with 45-60 psi at the gun
Conventional on Pressure Pot:	1.0 – 1.2 mm needle/nozzle with 45-60 psi at the gun
HVLP:	1.3 – 1.5 mm needle/nozzle with 10 psi output at the gun
HVLP on Pressure Pot:	1.0 – 1.2 mm needle/nozzle with 10 psi output at the gun
Airless:	Not recommended
Air-Assistd Airless:	Not recommended
Brush or Roll:	Not recommended
Electrostatic:	Addition of 5% MAK (Q70) will help pattern, atomization, and wrap.

Application:



Apply:	2 full wet coats Flash 5 – 10 minutes between coats (if needed)
Recommended Wet Film Build:	2.8 – 3.3 mils (range)
Recommended Dry Film Build:	1.5 – 2.0 mils (range)
Coverage (varies by color):	526 – 677 sq. ft. at 1.0 mil dry film per U.S. gallon

Dry Times:



Air Dry @ 77°F 50% RH:	With ALK-201	Without ALK-201
Dry to Touch	2 hours	15 – 30 minutes
Dry to Handle	3 hours*	1 hour*
Recoat	3 hours to 4 days	Before 6 hours or after 30 hours to 4 days**



Force Dry:	Allow 10 minutes air dry before baking to prevent solvent popping 30 minutes @ 180°F / 82°C
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* 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.

** **IMPORTANT!** If this product is recoated between 6 and 30 hours, lifting of the previous finish will occur. Before 6 hours, the coating is adequately solubilized to prevent lifting, while after 30 hours to 4 days, the cure has progressed to a point where solvent resistance is achieved.

ALK-200

Technical Data*

Performance Properties:

Test	ASTM Method	With ALK-201	Without ALK-201
Pencil Hardness	D3363	F – H	HB – H
Mandrel	D522	PASS	PASS
Chip Resistance	D3170	5	5 – 6
Gloss - 60°**	D523	89 – 91	85 – 89
Adhesion	D3359	4B	3B – 4B
In Service Temperature Limit †		240°F	200°F

Gloss levels can be adjusted using **DX-10-FLT to achieve intermediate gloss levels.

† As you approach the In Service Temperature Limit, depending on the pigmentation, the color may change, but the film integrity will be maintained until the limit is reached.

Chemical Resistance:

Chemical ASTM D1308	With ALK-201	Without ALK-201
Toluene	Slight Stain and Wrinkle	Extreme Wrinkle
10% NaOH (Sodium Hydroxide)	Pass	Stain, Wrinkle, Color Change
10% HCl (Hydrochloric acid)	Pass	Pass
10% H ₂ SO ₄ (Sulphuric acid)	Pass	Pass
Gasoline	Slight Stain and Color Change	Slight Stain and Wrinkle
Isopropanol	Slight Stain	Slight Stain
Water	Pass	Pass

Weather Resistance:

	ASTM Method	With ALK-201	Without ALK-201
Salt Spray – 100 hours	B117		
Corrosion Creep	D1654	None	None
Scribe Blisters	D714	8D	None
Face Blisters	D714	None	None
Adhesion	D3359 Method A	4A – 5A	5A
Humidity – 100 hours	D2247		
5 Minute Recovery Adhesion	D3359 Method B	4B – 5B	3B – 4B
1 Hour Recovery Adhesion	D3359 Method B	4B	3B
24 Hour Recovery Adhesion	D3359 Method B	5B	3B – 4B
QUV-UVA: 60° angle	D4587		
200 hour retention	D523	100%	91 – 100%
500 hour retention	D523	98 – 100%	86 – 100%
QUV-UVB: 60° angle	D4587		
200 hour retention	D523	95 – 100%	91 – 99%

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:

	Gloss Level	ALK-200 - % by Volume	DX-10-FLT - % by Volume
<i>Flattening ALK-200 using DX-10-FLT</i>	Full Gloss	100	0
	Semi-gloss	83	17
	Satin	81	19
	Eggshell	78	22
	Flat	74	26

This product should not be applied directly to Zinc surfaces

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 Industries Commercial Coatings

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