Commercial Performance Coatings

CPCPB001

Industrial Alkyd Enamel

ALK-110

ALK-110 Industrial Alkyd Enamel is recommended for industrial use on primed or un-primed metal surfaces that require cost-effective, one coat industrial alkyd applications.

With its quick dry time, fast turnaround in a shop setting may be achieved. Suitable applications include metal fabrication, castings, machinery and heavy equipment.

Features and benefits:

- Can apply one coat without runs or sags
- Direct-to-metal capable (primer recommended for exterior use)
- Intermediate glosses are possible with flattener
- High film build capability to help mask minor substrate defects

Associated Products:

- ALK-110 Industrial Alkyd Enamel
- ALK-201 Industrial Alkyd Catalyst (optional)

Physical Constants:

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

	ALK-110	ALK-110 w/ALK-201
Weight per gallon (US)	8.03 – 10.33 lbs/gal	8.11 – 10.26 lbs/gal
Percent solids (by weight	40.93 – 58.08%	43.93 – 59.52%
Percent solids (by volume)	33.36 – 39.83%	36.26 – 42.33%
VOC	4.3 – 4.83 lbs/gal	4.13 – 4.63 lbs/gal
HAPs	≤3.10 lbs/gal	≤3.0 lbs/gal
Photo-chemically reactive	Yes	Yes

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	Direct to properly treated substrate
Cold Rolled Steel	Very good
Hot Rolled Steel	Very good
Galvaneal	Not Recommended over Zinc Substrates
Galvanized	Not Recommended over Zinc Substrates
Aluminum	Fair – Good
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).*

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Directions for Use (continued)

Mix Directions:

Mix Directions:	Stir thoroughly before and occasionally during use.	
Thinning:	5 – 10% with Q50 (Aromatic 100) or Q80 (Xylene) as needed.	
Blend Ratio:	**ALK-110**	**ALK-110 w/ALK-201**
	N/A	15 : 1
Pot Life @ 77°F (25°C):	N/A	3 hours
Spray Viscosity Range:	#3 EZ Zahn	#3 EZ Zahn
	12 - 20 seconds	20 - 30 seconds
Unopened Shelf Life: (each component)	2 Years	

Application Equipment:

Conventional (with or without pressure pot):	1.3 – 1.6 mm needle/nozzle with 30 – 40 psi at the gun
HVLP (with or without pressure pot):	1.3 – 1.5 mm needle/nozzle with 10 psi at the cap
Airless:	0.009" – 0.0013" tip at 1400 – 2000 psi fluid pressure
Air-Assisted Airless:	0.009" – 0.0013" tip at 850 psi fluid pressure
Brush or Roll:	Polyester or nylon brush or short nap roller
Electrostatic:	Not Recommended

Application:

Apply:	1 – 2 medium coats with 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:	4 – 5 mils
Recommended Dry Film Build:	1.4 – 2.0 mils
Square Foot Coverage @ 1 mil no loss:	519 – 581 sq. ft

Dry Times:

Air Dry @ 77°F (25°C) 50% RH:

To Touch:	10 – 20 minutes
To Handle:	45 – 60 minutes
Dry:	24 hours*
Recoat:	Before 4 hours or after 3 days**
Force Dry:	Allow 10 minutes air dry then bake 20 minutes @ 160°F (71°C)

** 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.*

**** If recoated between 4 hours and 3 days, lifting of previous finish will occur. Before 4 hours the coating is adequately solubilized to prevent lifting. After 3 days, the coating has cured enough where solvent resistance is achieved.**

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Technical Data*

Performance Properties:

Test	ASTM Method	Results	
		ALK-110	ALK-110/ALK-201
Gloss @ 60° Angle	D523	80 – 90	80 – 90
Pencil Hardness	D3363	2B – 3B	HB – F
Gravelometer	D3170	5	8
Adhesion	D3359	4B	5B
In Service Temperature Limit**		180°F (82°C)	

***As you approach 150°F depending on the pigmentation, the color may change, but the film's integrity will be maintained up to 180°F*

Chemical Resistance:

Chemical	ASTM Methd	Results	
		ALK-110	ALK-110/ALK-201
MEK	D1308	Severe wrinkle	Slight stain
10% NaOH (Sodium Hydroxide)	D1308	Severe wrinkle	Slight stain
10% HCl (Hydrochloric acid)	D1308	Slight wrinkle	Pass
10% H_2SO_4 (Sulphuric acid)	D1308	Pass	Pass
Gasoline	D1308	Slight wrinkle	Slight stain
Water†	D1308	Pass	Pass

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

Weather Resistance:

	ASTM Method	Results	
		ALK-110	ALK-110/ALK-201
Salt Spray – 250 hours	B117		
Corrosion Creep	D1654	5A – 7A	6A
Scribe Blisters	D714	Micro, 8F	Micro, 8D, 6D, 4M
Face Blisters	D714	Micro, 8F	8M, 6F
Humidity – 100 hours	D2247		
5 Minute Recovery Adhesion	D3359	4B	5B
1 Hour Recovery Adhesion	D3359	4B	5B
24 Hour Recovery Adhesion	D3359	4B	5B
QUV-UVB: 60° angle	D4587		
250 hour retention	D523	53.1%	42.9%

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:

This product should not be applied to zinc substrates

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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 MÉXICO 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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