



# Advanced Industrial Coatings

## 5.0 VOC Acrylic Enamel

### K1 Series

## PRODUCT OVERVIEW

Advanced Industrial Coatings 5.0 VOC Acrylic Enamel is a one-component acrylic enamel topcoat for properly prepared and/or primed metal surfaces. Advanced Industrial Coatings is an easy to use, high gloss, durable, chemical and solvent resistant coating that can be air dried or force dried. AIC™ 5.0 Acrylic Enamel is offered as an intermix color system. AIC™ 5.0 Acrylic Enamel is an extremely versatile, cost effective product and is recommended for use on industrial applications that require durability and good sag-resistance. AIC™ 5.0 VOC Acrylic Enamel has an additional 1K option if such properties are desired.



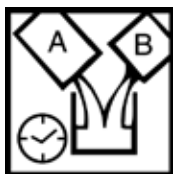
### SUITABLE SUBSTRATES

- Cold rolled steel
- Hot rolled steel
- Fiberglass
- ABS & PC/ABS
- Aluminum

### SUITABLE PRIMERS

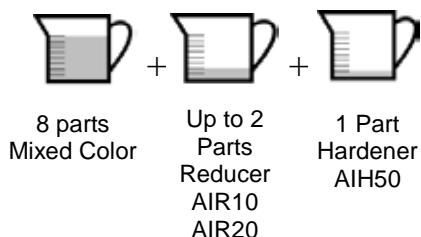
- AIP100 Series Primers
- AIP 200 Series Primers

**Note:** AIC™ 5.0 Acrylic Enamel can be applied directly to these substrates if surface preparation recommendations are followed.



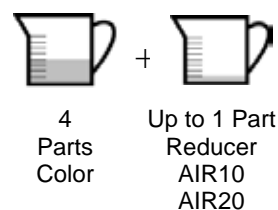
### MIXING

#### With Hardener Mix



**Note:** To speed dry time of the **2K product**, add up to **8 ounces of AIA200** accelerator per sprayable gallon.

#### Without Hardener Mix



**Note:** To speed dry time of **1K** product, add up to **8 ounces of AIC440** drier per sprayable gallon.



### APPLICATION

1. HVLP: Adjust air pressure at cap to 8-10 psi.
2. Conventional: Adjust air pressure at the gun to 45-60 psi for pressure feed applications with a fluid delivery of 8-15 ounces per minute.
3. For Conventional Pressure Feed, apply 2 medium coats at a gun distance of 8-10 inches. Spray to hiding. For HVLP, apply 1 full wet coat with 50% overlap, applying the second coat in a cross-coat method. Recommended dry film thickness is 2.0-2.5 mils.
4. Clean spray gun immediately after use with Gun and Equipment Cleaner.



### DRYING SCHEDULE

#### Air Dry Times – With Hardener

Dust Free:	1 hour
Nib Sandable:	1 hour
Tack Free:	2 hours
Tape Free:	3 hours
Sandable:	4-6 hours

#### Air Dry Times – Without Hardener

Nib Sandable:	1 hour
Dust Free:	2 hour
Tack Free:	3 hours
Tape Free:	4 hours
Sandable:	8 hours



### PERSONAL PROTECTION

- Read all label directions before use.
- Refer to MSDS for specific information.
- Wear positive-air respirator when mixing and applying.
- Wear a NIOSH approved dust particulate mask when sanding.
- Wear safety goggles, coveralls, and latex gloves when using product.



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## PRODUCT DATA SHEET



### SURFACE PREPARATION

- § Wash surfaces with a mild detergent in hot water. Rinse well and wipe dry with a clean cloth.
- § Solvent clean with the appropriate Low VOC Surface Cleaner and wipe dry with a clean cloth.
- § If doing repair, grind repair area to remove paint and all rust as needed
- § Sand all areas to be primed and featheredge all broken film areas. Then solvent clean with the appropriate cleaner.
- § Prime with AIP primer.



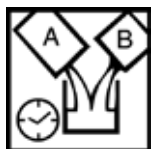
### SUITABLE SUBSTRATES

- Cold rolled steel
- Hot rolled steel
- Fiberglass
- ABS & PC/ABS
- Aluminum

**Note:** AIC™ 5.0 Acrylic Enamel can be applied directly to these substrates if surface preparation recommendations are followed.

### SUITABLE PRIMERS

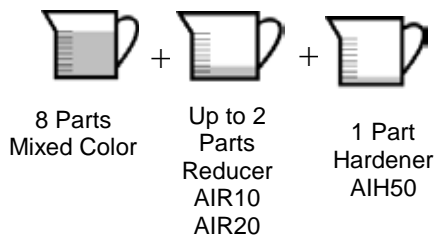
- AIP 100 Series Primers
- AIP 200 Series Primers



### MIXING

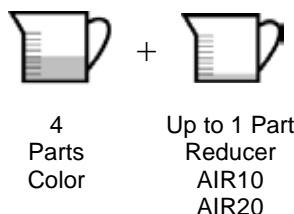
- Stir or shake AIC™ K1 series thoroughly before mixing.
- 1K – Mix by volume. 4 parts AIC™ 1K Color with up to 1 part of AIR10 / AIR20 reducers.  
Optional: Hardener AIH50 available if increased physical properties are desired. Mix 8 parts color, up to 2 parts reducer, and 1 part hardener.
- Stir thoroughly and strain before use.
- Pot life: 7 days. Pot life: 4 to 6 hours with hardener.

#### With Hardener Mix



**Note:** To speed dry time of the **2K product**, add up to **8 ounces of AIA200** accelerator per sprayable gallon.

#### Without Hardener Mix



**Note:** To speed dry time of **1K product**, add up to **8 ounces of AIC440** drier per sprayable gallon.

REDUCER	TEMPERATURE RANGE
AIR10	50-75°F
AIR20	75-90°F

### APPLICATION

1. HVLP: Adjust air pressure at cap to 8-10 psi.
2. Conventional: Adjust air pressure at the gun to 45-60 psi for pressure feed applications with a fluid delivery of 8-15 ounces per minute.
3. For Conventional Pressure Feed, apply 2 medium coats at a gun distance of 8-10 inches. Spray to hiding. For HVLP, apply 1 full wet coat with 50% overlap, applying the second coat in a cross-coat method. Recommended dry film thickness is 2.0-2.5 mils.
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### EQUIPMENT

#### Gun Type

Conventional Pressure Feed  
HVLP Pressure Feed

#### Nozzle

0.8-1.4 mm at 8-15 oz/min  
0.8-1.2 mm at 8-15 oz/min

#### Air Pressure

45-60 psi  
8-10 psi at cap

### RECOAT

- Recoat before 8 hours or after 48 hours to prevent lifting. AIC™ K1 can be recoated with itself before 8 hours or after 48 hours and up to 14 days after initial application without sanding or scuffing.

### DRYING SCHEDULE

- Dry times are based on dry film thickness of 2.0 – 2.5 mils; thicker films will extend drying times.
- Air dry times at 75°F and 50% relative humidity.

#### **Air Dry Times With Hardener**

Dust Free: 1 Hours  
Nib Sandable: 1 hour  
Tack Free: 2 Hours  
Tape Free: 3 hours  
Sandable: 4-6 hours

#### **Air Dry Times Without Hardener**

Nib Sandable: 1 hour  
Dust Free: 2 hour  
Tack Free: 3 hours  
Tape Free: 4 hours  
Sandable: 8 hours

#### **Force Dry Times With Hardener**

<u>Temperature</u>	<u>Time to Tape Free</u>
140°F	1 hour
180°F	45 minutes

#### **Force Dry Times Without Hardener**

<u>Temperature</u>	<u>Time to Tape Free</u>
140°F	80-120 minutes
180°F	45-60 minutes

- To speed dry time of **1K** product, add up to **8 ounces of AIC440** drier per sprayable gallon.
- To speed dry time of the **2K product**, add up to **8 ounces of AIA200** accelerator per sprayable gallon.

### NOTES

- Decals may be applied after air-drying 72 hours at 75°F. Lower temperatures, heavy film thickness, poor air movement, thick decals, foil-based decals, etc., will extend the 72 hour dry time before decals may be applied.
- Infrared Recommendation: 10 minutes on low for flash and 20 minutes on high until firm. Lamp should be no closer than 36 inches.

### TECHNICAL DATA

<b>Mixing Ratio by Volume</b>	4:1	<b>Recommended Film Thickness</b>	2.0-2.5 mils
<b>Max VOC @ 4:1</b>	4.34 lbs/gal	<b>Hours of Xenon 1000</b>	No Effect
<b>Ready to Spray Volume Solids (White)</b>	40 %	<b>Salt Spray Resistance 250 hrs</b>	1/8" creepage
<b>Coverage @ 1 mil dry (white)</b>	800 FT <sup>2</sup> /gal	<b>10% Sulfuric Acid</b>	Slight Effect
<b>Pot Life</b>	4-6 hours with Hardener	<b>Humidity 100 hours</b>	Slight Effect
<b>Viscosity (sprayable) Gardner #2 Zahn Cup (ISO calibrated)</b>	18-25 sec	<b>Flexibility (1/8" conical mandrel)</b>	Excellent



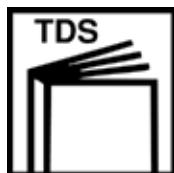
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### TECHNICAL DATA cont.



K1 Series-with hardener	As Packaged		As Applied	
	Lb/Gal	G/L	Lb/Gal	G/L
Density	8.05	964	7.81	936
	% by Wt.	% by Vol.	% by Wt.	% by Vol.
Volatiles	55.2	62.2	61.2	68.2
Solids	44.8	37.8	38.8	31.8
Water	0	0	0	0
Exempt Compounds	3.3	3.9	17.8	21.0
	Lb/Gal	G/L	Lb/Gal	G/L
VOC Total	4.17	500	3.39	406
VOC Less Exempt	4.34	520	4.29	514
	Lb/Gal	KG/L	Lb/Gal	KG/L
HAPs	9.62	1.152	8.33	0.998

K1 Series-without hardener	As Packaged		As Applied	
	Lb/Gal	G/L	Lb/Gal	G/L
Density	8.05	964	7.76	929
	% by Wt.	% by Vol.	% by Wt.	% by Vol.
Volatiles	55.2	62.2	62.8	69.7
Solids	44.8	37.8	37.2	30.3
Water	0	0	0	0
Exempt Compounds	3.3	3.9	19.7	23.1
	Lb/Gal	G/L	Lb/Gal	G/L
VOC Total	4.17	500	3.34	400
VOC Less Exempt	4.34	520	4.34	520
	Lb/Gal	KG/L	Lb/Gal	KG/L
HAPs	9.62	1.152	9.62	1.152