



# Advanced Industrial Coatings

## 2.1 VOC Epoxy Primer

### AIP302 Gray, AIP303 White

## PRODUCT DATA SHEET

AIP302 Gray & AIP303 White 2.1 VOC Epoxy Primers are high-solids, direct-to-metal epoxy primers offering excellent performance properties and are easily topcoatable. AIP302 Gray & AIP303 White can be used with a wide range of topcoats and are considered ideal primers for fleet, construction machinery, farm equipment, and other OEM industrial applications.



### PERSONAL PROTECTION

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



### SURFACE PREPARATION

- Wash surfaces with a mild detergent in hot water. Rinse well and wipe dry with a clean cloth.
- Solvent clean with an appropriate surface cleaner and wipe dry with a clean cloth.
- Blast all metal areas (preferred) or sand with 80 grit sand paper (recommended for SMC and FRP).
- Solvent clean with an appropriate surface cleaner and wipe dry with a clean cloth.

**Note:** AIP302 & AIP303 do not require an etch primer; they can be applied directly to the properly cleaned and blasted or sanded substrates with 220 grit sandpaper.



### SUITABLE SUBSTRATES

- Cold rolled steel
- Hot rolled steel
- Aluminum
- Fiberglass
- SMC

### EQUIPMENT

#### Gun Type

HVLP Pressure Feed  
Conventional Pressure Feed

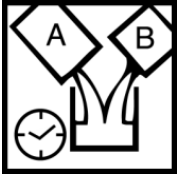
#### Nozzle

0.8-1.4 mm at 8-14 oz/min  
0.8-1.4 mm at 8-14 oz/min

#### Air Pressure

10 psi at cap  
28-35 psi

## PRODUCT DATA SHEET



### MIXING

- Stir or shake AIP302/AIP303 thoroughly before mixing.
- If reduction is needed, use up to 2 parts AIR20 Reducer.
- AIR20 Reducer has a temperature range of 50-90° F.
- Stir thoroughly and strain before use.



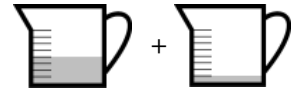
- Pot life: 8 hours at 75° F.
- |  |                             |                             |
|--|-----------------------------|-----------------------------|
| 4 Parts<br>Primer<br>AIP302 or<br>AIP303 | 2 Parts<br>Reducer<br>AIR20 | 1 Part<br>Hardener<br>AIH21 |
|--|-----------------------------|-----------------------------|

**Volume Solids: 41.5%**



- |  |                            |                             |
|--|----------------------------|-----------------------------|
| 4 Parts<br>Primer<br>AIP302 or<br>AIP303 | 1 Part<br>Reducer<br>AIR20 | 1 Part<br>Hardener<br>AIH21 |
|--|----------------------------|-----------------------------|

**Volume Solids: 48.4%**



- |  |                             |
|--|-----------------------------|
| 4 Parts<br>Primer<br>AIP302 or<br>AIP303 | 1 Part<br>Hardener<br>AIH21 |
|--|-----------------------------|

**Volume Solids: 58.1%**

#### Optional For All Mixes

1-3 ounces of AIA300 per ready-to-spray gallon may be added to accelerate cure.

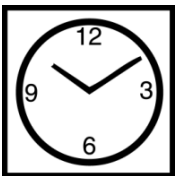


### APPLICATION

1. HVLP: Adjust air pressure at cap to 10 psi.
2. Conventional: Adjust air pressure at the gun to 28-35 psi for pressure feed applications with a fluid delivery of 8-14 ounces per minute.
3. Pressure/Siphon Feed: Apply 2 medium coats at a gun distance of 8-10 inches. Spray to hiding.
4. HVLP: Apply 1 full wet coat with 70% overlap, after flash apply the second coat. Recommended dry film thickness is 2.0-2.5 mils.
5. Clean spray gun immediately after use with Gun and Equipment Cleaner.

### RECOAT

- When unaccelerated, AIP302 & AIP303 may be topcoated or recoated after 15 minutes and up to 5 days without sanding or scuffing. After 5 days, sand the surface with 220-320 grit sandpaper.



### DRYING SCHEDULE

- Dry times are based on the recommended 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 w/ 3 oz Accelerator AIA300

*At 75° F and 50% Relative Humidity*

Handslick:	30 minutes
Nib Sandable:	2 hours
Tack Free:	2 hours
Sandable:	3 hours

#### Air Dry Times Unaccelerated

*At 75° F and 50% Relative Humidity*

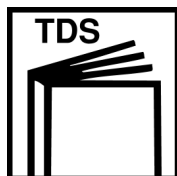
Handslick:	1 hour
Nib Sandable:	2 hours
Tack Free:	3 hours
Sandable:	3 hours

#### Forced Dry Times

*Time To Tape Free*

Handslick:	1 hour
Nib Sandable:	2 hours

## PRODUCT DATA SHEET



### TECHNICAL DATA (All testing performed at a 4:2:1 mix ratio)

Max VOC (4:2:1)	2.1 lbs/gal	Viscosity (sprayable) Gardener #2 Zahn Cup (ISO calibrated)	18-20 secs
Ready to Spray Volume Solids	41.5%	Physical Properties*	
Coverage @ 1 mil dry (4:2:1)	666 Ft <sup>2</sup> /gal	Salt Spray (250 hours)	1/8" creep
Pot Life	8 hours	Humidity (96 hours)	No Effect
Recommended Dry Film Thickness	2.0-2.5 mils	Flexibility (1/8" conical mandrel)	Pass

REGULATORY DATA (4:2:1)	As Packaged		As Applied	
	Lbs/Gal	G/L	Lbs/Gal	G/L
Density	14.55	1743	11.52	1380
	% by Wt.	% by Vol.	% by Wt.	% by Vol.
Volatiles	17.78	37.60	36.45	58.51
Solids	82.2	62.4	63.5	41.5
Water	0	0	0	0
Exempt Compounds	10.02	22.12	14.58	36.53
	Lbs/Gal	G/L	Lbs/Gal	G/L
VOC Total	1.12	135	1.22	146
VOC Less Exempt	1.45	173	2.07	249
	Lbs/Gal	KG/L	Lbs/Gal	KG/L
HAPs	0.45	0.0054	0.25	0.029

REGULATORY DATA (4:1:1)	As Packaged		As Applied	
	Lbs/Gal	G/L	Lbs/Gal	G/L
Density	14.55	1743	12.19	1460
	% by Wt.	% by Vol.	% by Wt.	% by Vol.
Volatiles	17.78	37.6	29.93	51.59
Solids	82.22	62.40	70.07	48.41
Water	0	0	0	0
Exempt Compounds	10.02	22.12	18.20	31.40
	Lbs/Gal	G/L	Lbs/Gal	G/L
VOC Total	1.12	135	1.22	146
VOC Less Exempt	1.45	173	2.07	249
	Lbs/Gal	KG/L	Lbs/Gal	KG/L
HAPs	0.45	0.0054	0.25	0.029

REGULATORY DATA (4:1)	As Packaged		As Applied	
	Lbs/Gal	G/L	Lbs/Gal	G/L
Density	14.55	1743	13.13	1562
	% by Wt.	% by Vol.	% by Wt.	% by Vol.
Volatiles	17.78	37.60	21.92	41.91
Solids	82.22	62.40	78.08	58.09
Water	0	0	0	0
Exempt Compounds	10.02	22.12	5.80	17.60
	Lbs/Gal	G/L	Lbs/Gal	G/L
VOC Total	1.12	135	1.22	146
VOC Less Exempt	1.45	173	2.07	249
	Lbs/Gal	KG/L	Lbs/Gal	KG/L
HAPs	0.45	0.0054	0.25	0.029



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# PRODUCT DATA SHEET

## LABEL CAUTION INFORMATION

### AIP302 & AIP303:

**DANGER! FLAMMABLE! HARMFUL IF INHALED - MAY AFFECT THE BRAIN OR NERVOUS SYSTEM, CAUSING DIZZINESS, HEADACHE OR NAUSEA. IRRITATES EYES, SKIN AND RESPIRATORY TRACT.**

Before using, carefully read CAUTIONS on back panel.

SEE CONTENTS STATEMENT ELSEWHERE ON LABEL. Contents are **FLAMMABLE**. Vapors may cause flash fires. Keep away from heat, sparks, and open flame. During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.

**VAPOR HARMFUL.** Use only with adequate ventilation. Wear an appropriate properly fitted vapor/particulate respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.

Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage. **FIRST AID:** If **INHALED:** If affected, remove from exposure. Restore breathing, Keep warm and quiet. If on **SKIN:** Wash affected area thoroughly with soap and water. Remove contaminated clothing. Launder before re-use. If in **EYES:** Flush eyes with large amounts of water for 15 minutes. Get medical attention. If **SWALLOWED:** Call Poison Control Center, hospital emergency room, or physician immediately. **DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE.**

Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

This product must be mixed with other components before use. Before opening the packages, **READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.** **WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. **DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN. FOR PROFESSIONAL USE ONLY. SEE MATERIAL SAFETY DATA SHEET**

### AIH21:

**DANGER! FLAMMABLE! HARMFUL IF INHALED OR ABSORBED THROUGH THE SKIN. MAY CAUSE ALLERGIC RESPIRATORY AND SKIN REACTIONS. VAPOR HARMFUL. CAUSES EYE, SKIN AND RESPIRATORY TRACT BURNS.**

Before using, carefully read CAUTIONS on back panel.

**ALCOHOLS**

**AMINE**

**POLYAMINE RESIN**

Contents are **FLAMMABLE**. Vapors may cause flash fires. Keep away from heat, sparks, and open flame. During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition. **VAPOR HARMFUL.** Use only with adequate ventilation. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air, or wear respiratory protection (NIOSH approved) or leave the area. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage.

**FIRST AID:** In case of eye contact, flush thoroughly with large amounts of water for 15 minutes and get medical attention. For skin contact, wash thoroughly with soap and water. In case of respiratory difficulty, provide fresh air and call physician. If swallowed, do not induce vomiting. Call Poison Control Center, hospital emergency room, or physician immediately. **DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE.**

Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

This product must be mixed with other components before use. Before opening the packages, **READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.** **DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN.** **FOR PROFESSIONAL USE ONLY. NOT FOR RESIDENTIAL USE. SEE MATERIAL SAFETY DATA SHEET.**



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#### AIR20:

DANGER! HARMFUL OR FATAL IF SWALLOWED. EXTREMELY FLAMMABLE - VAPORS MAY CAUSE FLASH FIRES! HARMFUL IF INHALED - MAY AFFECT THE BRAIN OR NERVOUS SYSTEM, CAUSING DIZZINESS, HEADACHE OR NAUSEA. IRRITATES EYES, SKIN AND RESPIRATORY TRACT. Before using, carefully read CAUTIONS on back panel. SEE CONTENTS STATEMENT ELSEWHERE ON LABEL. Contents are EXTREMELY FLAMMABLE. Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively. During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition. VAPOR HARMFUL. Use only with adequate ventilation. Wear an appropriate properly fitted vapor/particulate respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage. FIRST AID: If INHALED: If affected, remove from exposure. Restore breathing. Keep warm and quiet. If on SKIN: Wash affected area thoroughly with soap and water. Remove contaminated clothing. Launder before re-use. If in EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention. If SWALLOWED: Do not induce vomiting. Call Poison Control Center, hospital emergency room, or physician immediately. DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN. FOR PROFESSIONAL USE ONLY. SEE MATERIAL SAFETY DATA SHEET.

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