

AMERLOCK® 400VOC

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DESCRIPTION	VOC Compliant High Solids Epoxy Coating
PRINCIPAL CHARACTERISTICS	<ul style="list-style-type: none"> – VOC compliant for <100 g/L specifications – High performance general maintenance coating for new or old steel – Self priming over most existing coatings – Compatible with prepared damp surfaces – Compatible with adherent rust remaining on prepared surfaces – Dry temperature resistance up to 450°F on insulated or uninsulated surfaces when mixed with <i>Amercoat 880</i> glass flake additive
COLOR AND GLOSS	<p>Standard primer colors and custom colors Semi-gloss</p> <p><i>* Epoxy coatings will characteristically chalk and fade upon exposure to sunlight. Light colors are prone to ambering to some extent.</i></p>
BASIC DATA	
Volume solids	83% ± 3%
VOC	0.82 lbs/gal (98 g/L)
Recommended Dry film thickness (per coat)	4 – 8 mils (100 – 200 microns)
Theoretical Spread Rate	@ 1 mil dft 1331 ft ² / gallon @ 5 mils dft 266 ft ² / gallon
Components	2
Shelf Life	3 years from date of manufacture
SURFACE PREPARATION	
Steel	<p>Coating performance is, in general, proportional to the degree of surface preparation.</p> <ul style="list-style-type: none"> – Remove weld spatter, protrusions, and laminations in steel. Grind welds smooth in accordance with NACE RP-0178. Remove all surface contaminants, oil and grease in accordance with SSPC SP-1. <p>Abrasive blast with an angular abrasive to an SSPC SP-10 cleanliness or higher for immersion service. Achieve a surface profile of 2.0-4.0 mils. For atmospheric service, abrasive blast to SSPC SP-6 standards.</p> <p>The product may be applied over an SSPC SP WJ-2(L) where a previous blast profile can be exposed.</p> <p>For maintenance and repair in atmospheric service, the product can be applied over surfaces prepared in accordance with SSPC SP-2 or SSPC SP-3 (hand and power tool cleaning).</p> <p><i>Amercoat 114A</i> may be used as a pit filler for severely pitted steel and surface discontinuities.</p> <p>Check with PPG technical service for the maximum allowable soluble salt level for water immersion service. This will vary based on the water chemistry and service temperatures.</p>
Concrete	<ul style="list-style-type: none"> – Prepare / clean surface in accordance with SSPC SP-13 guidelines. Abrade surface per ASTM D-4259 to remove all efflorescence and laitance, to expose sub-surface voids, and to provide a surface roughness equivalent of 60 grit sandpaper or coarser. Test for moisture by conducting a plastic sheet test in accordance with ASTM D4263. Fill voids as necessary with <i>Amercoat 114A</i> epoxy filler. For slabs on grade, test for moisture in accordance with ASTM F1869 (calcium chloride test). The maximum allowable moisture transmission is 3 lbs / 1,000 ft²/24 hours. Refer to Information Sheet 1496ACUS for further details regarding moisture measurements.

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- Galvanized Steel
 - Remove oil or soap film with detergent or emulsion cleaner. Lightly abrasive blast with a fine abrasive in accordance with SSPC SP-16 guidelines to achieve a profile of 1.5-3.0 mils. When light abrasive blasting is not possible, galvanizing can be treated with a suitable zinc phosphate conversion coating. Galvanizing that has at least 12 months of exterior weathering and has a rough surface with white rust present may be over-coated after power washing and cleaning to remove white rust and other contaminants. The surface must have a measurable profile. A test patch is recommended to confirm adhesion. Not recommended over chromate sealed galvanizing without blasting to thoroughly remove chromates. Adhesion problems may occur.
- Non-Ferrous Metals and Stainless Steel
 - Abrasive blast in accordance with SSPC SP-16 guidelines to achieve a uniform and dense 1.5-4.0 mil anchor profile. Size and hardness of abrasive should be adjusted as necessary based on the hardness of the substrate. Aluminum may be treated with a surface treatment compliant with Mil-DTL-5541 or equivalent (non-immersion applications only).
- Aged Coatings and Repairs
 - Ensure the coating system is sound and well adhered. Do not apply over acrylic coatings or coatings that exhibit poor solvent resistance. A test patch is recommended. Sweep blast or otherwise thoroughly abrade the existing coating in accordance with SSPC SP-7. Alternately, Prep 88 may be used to prepare some existing coatings. Please refer to Prep 88 data sheet for details. Feather the edges of tightly adhered, in-tact coatings at the perimeter of repair areas. Power tool clean the existing steel in accordance with SSPC SP-3 (atmospheric service) or SSPC SP-11 (immersion service).

ENVIRONMENTAL CONDITIONS

- Ambient temperatures 50°F to 122°F (10°C to 50°C)
 * Epoxy Amerlock 2VOC hardener can be used with the Amerlock 2/400 base component for applications that require a faster dry time or application at lower temperature. The A component is the same for Amerlock 400VOC and Amerlock 2VOC. The B components are interchangeable.
- Material temperatures 50°F to 90°F (10°C to 32°C)
- Relative humidity 0-100%, surface must be free of visible moisture. For immersion service and for optimum performance, surface temperature must be at least 5°F above the dew point temperature.
- Surface temperature 50°F to 122°F (10°C to 50°C)
- General air quality Area should be sheltered from airborne particulates and pollutants. Avoid combustion gases or other sources of carbon dioxide that may promote amine blush and ambering of light colors. Ensure good ventilation during application and curing. Provide shelter to prevent wind from affecting spray patterns.

INSTRUCTIONS FOR USE

- Mixing ratio by volume 1 part base to 1 part hardener
 Pre-mix pigmented components with a pneumatic air mixer at moderate speeds to homogenize the container. Add hardener to base and agitate with a power mixer for 1-2 minutes until completely dispersed.

Pot life

	50°F	70°F	90°F
400VOC	4 hours	2.5 hours	1.5 hours
w/ ½ pint Amercoat 861 accelerator per 5 gallons	2.5 hours	1.5 hours	1 hour
w/ 1 pint Amercoat 861 accelerator per 5 gallons	1.5 hours	1 hour	45 minutes

- Induction time None required
- Airless spray 45:1 pump or larger, 0.017-0.019 fluid tip
 Can be sprayed with plural component application equipment.
- Air spray Thin up to 20%, standard conventional equipment, 0.070" fluid orifice
- Brush & roll Use a high quality natural bristle brush and / or solvent resistant, 3/8" nap roller. Ensure brush / roller is well loaded to avoid air entrainment. Multiple coats may be necessary to achieve adequate film build.

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Thinner	PPG 97-739 and tert-butyl acetate are VOC exempt thinners which can be used without limit to maintain < 100 g/L. The following thinners may be used up to 2.5 oz. per gallon to maintain a VOC of < 100 g/L. <i>Amercoat 65</i> (xylene), <i>Amercoat 101</i> (recommended for > 90°F), <i>Amercoat 8</i> (to extend pot life 10-20%)
Cleaning solvent	<i>Amercoat 12 Cleaner</i> or <i>Amercoat 65 thinner</i> (xylene)
Primers	Direct to substrate; <i>Dimetcote-</i> series primers, <i>Amercoat 68HS</i> , <i>Amercoat 68MCZ</i>
Topcoats	<i>Amercoat 450-Series Polyurethanes</i> , <i>Amershield VOC</i> , <i>PSX 700</i> , <i>PSX One</i>
Safety precautions	For paint and recommended thinners see safety sheet 1430, 1431 and relevant material safety data sheets This is a solvent borne paint and care should be taken to avoid inhalation of spray mist or vapor as well as contact between the wet paint and exposed skin or eyes.

DRY/CURE TIMES*

Amerlock 400VOC @ 5 mils dft

	50°F	70°F	90°F
Dry to touch	28 hours	9 hours	4.5 hours
Dry through	40 hours	20 hours	12 hours
Dry to recoat/ topcoat	32 hours	16 hours	8 hours
Max recoat, self	120 days	90 days	45 days
Max topcoat, urethanes, PSX	30 days	30 days	14 days
Cure to immersion	21 days	7 days	4 days

ACCELERATED DRY TIMES

Amerlock 400VOC w/ 1 pint Amercoat 861 per 5 gallons @ 5 mils dft

	32°F	50°F	70°F	90°F
Dry to touch	48 hours	15 hours	4 hours	2 hours
Dry through	72 hours	24 hours	10 hours	5 hours
Dry to recoat/ topcoat	16 hours	16 hours	8 hours	4 hours
Max recoat, self	60 days	45 days	30 days	15 days
Max topcoat, urethanes, PSX	30 days	21 days	14 days	5 days
Cure to immersion	NR	NR	NR	NR

* Dry times are dependent on air and surface temperatures as well as film thickness, ventilation, and relative humidity. Maximum recoating time is highly dependent upon actual surface temperatures – not simply air temperatures. Surface temperatures should be monitored, especially with sun-exposed or otherwise heated surfaces. Higher surface temperatures shorten the maximum recoat window
Surface must be clean and dry. Any contamination must be identified and removed. A detergent wash with Prep 88 or equivalent is required prior to application of topcoats after 30 days of exposure. However, particular attention must be paid to surfaces exposed to sunlight where chalking may be present. In those situations, a further degree of cleaning may be required. PPG Technical Service can advise on suitable cleaning methods. If maximum recoat/topcoat time is exceeded, then roughen surface.

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PRODUCT QUALIFICATIONS

- Compliant with USDA Incidental Food Contact Requirements
- AWWA D102-06 ICS #1, #2, #3, #5
- LEED's compliant for Anti-corrosive Paint category

AVAILABILITY

Packaging

Available in 2-gallon and 5-gallon kits
 2-gallon kits have 1 full gallon of base and 1 full gallon of hardener
 5 gallon kits have 2.5 gallons of base and 2.5 gallons of hardener

Product codes

AK2V-1	Buff base
AK2V-3	White base
AK2V-9	Black base
AK2V-23	Pearl Gray base
AK2V-72	Oxide Red base
AK2V-81	Safety Yellow base
AK2V-T1	Deep tint base
AK2V-T2	Light tint base
AK2V-T3	Neutral tint base
AK2V-T5	High hiding yellow tint base
AK400V-B	Hardener component

Worldwide statement

While it is always the aim of PPG Protective & Marine Coatings to supply the same product on a worldwide basis, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used.

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The data contained herein are liable to modification as a result of practical experience and continuous product development.

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