AMERLOCK Sealer

February 2012
Revision of November 2011

DESCRIPTION

Penetrating Epoxy Primer Sealer

PRINCIPAL CHARACTERISTICS

- Solvent Free
- Compatible with damp surfaces
- Wicking action penetrates rusted steel and concrete surfaces
- Surface tolerant for applications where abrasive blasting is not an option
- Accepts broad range of topcoats
- Can be used as a curing compound for new concrete (see system guide #4114)
- Excellent tie coat for many existing coatings

COLOR AND GLOSS

Gloss
Clear

* *Epoxy coatings will characteristically chalk and fade upon exposure to sunlight. Amerlock Sealer will amber with age.*

BASIC DATA

Volume solids	100%
VOC	0 lbs/gal; 0 g/L calculated 0.9 lbs/gal; 90 g/L (EPA Method 24)
Recommended Dry film thickness	1 – 2 mils per coat (25 – 50 microns)
Theoretical Spread Rate	@ 1 mils dft 1600 ft^2/gal
Components	2
Shelf Life	3 years from date of manufacture

SURFACE PREPARATION

Coating performance is, in general, proportional to the degree of surface preparation. Use of Amerlock Sealer provides a viable options for coating projects where abrasive blasting is not possible, but it is not a performance substitute for abrasive blasting in many circumstances.

Steel

– Remove all rust, dirt, moisture, grease or other contaminants from the surface. Power tool clean in accordance with SSPC SP-3 or hand tool clean to SSPC SP-2 requirements. Alternately, abrasive blast to SSPC SP-7 requirements. Abrasive blasting to SSPC SP-6 or better is also allowable. Amerlock Sealer may be applied over waterjetted surfaces as well.

Aluminum

– Remove all rust, dirt, moisture, grease or other contaminants from the surface. Treat with chromating conversion coatings or phosphatizing agents. Applicable over surface treatments such as MIL-C-5541. Alternately, lightly abrasive blast with fine abrasive to produce a uniform and dense anchor profile of 1-3 mils.

Galvanizing or Galvalume®

– Remove oil or soap film with detergent or emulsion cleaner, then use a phosphatizing conversion coating. Alternately, power tool clean to uniformly abrade the surface or lightly abrasive blast with a fine abrasive to produce a uniform and dense anchor profile of 1-3 mils.

Galvanizing that has had at least 12 months of exterior weathering may be coated after power washing to remove all contaminants and white rust. Galvanized surfaces that have been passivated with a chromate treatment must be lightly abrasive blasted. Coatings may not adhere to chromate sealed galvanizing if the chromates are not completely removed.

Concrete

– *New Slabs* – All surfaces to be coated must be strong and sound, contain no additives or hardeners, and should not be treated with other sealers or conventional curing compounds containing waxes, silicones, or silicates. New slabs (horizontal surfaces), should have a float or broom finish as described in ACI Specification 301. Finishing shall be within Class A tolerance when using Amerlock Sealer as a concrete curing compound and applying an epoxy surfacing.

When using Amerlock Sealer as a curing compound, product should be applied to the concrete within 72 hours after placement of concrete and as soon as forms can be removed. Please refer to System Guide #1441 for further information.

Existing Concrete – Water cured concrete or existing structures must be cured for a minimum of 14 days and have attained 80 percent of its final strength. When cured, the surface must be either prepared per ASTM D 4259 or ASTM D 4260 with muriatic acid using equal parts of acid to water by volume. Surface should be free of any oil, grease, embedded chemicals, laitance, water repellants, previous sealants, form release compounds, and effluoresence. The surface should be checked for moisture transmission in accordance with ASTM F1869 (calcium chloride test) or by ASTM D4253 (plastic sheet test). The maximum recommended moisture transmission rate is 3 lbs / 1,000 ft^2 / 24 hours.

A suitably finished surface must have a uniform surface texture exposing fine aggregate resembling coarse sandpaper. If required, repeat acid etching or abrasive blasting until the surface texture is uniform.

Concrete surfaces cured with conventional curing compounds or contaminated with form oils must be completely cleaned by ASTM D4259. Acid etching is not acceptable as it will not normally remove these compounds.

ENVIRONMENTAL CONDITIONS

Ambient temperatures	40°F to 120°F (0°C to 49°C) Surface temperature must be at least 5°F above the dew point temperature.
Material temperatures	40°F to 90°F (5°C to 32ºC)
Relative humidity	85% maximum
Surface temperature	40°F to 120°F (0°C to 49°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 parts base to 1 part hardener

Add hardener to base and agitate with a power mixer for 1-2 minutes until completely mixed.

Pot life

50°F	70°F	90°F
100 minutes	60 minutes	30 minutes

Induction time	40°F to 50°F 15 minutes
Airless spray	30:1 pump or larger, 0.013-0.015 fluid tip
Air spray	Thin up to 20%, standard conventional equipment, 0.070” fluid orifice, Separate air and fluid pressure regulators and a moisture and oil trap in the main air supply line are recommended.
Brush & roll	Use a high quality natural bristle brush and / or solvent resistant, 1/4” nap roller. Ensure brush / roller is well loaded to avoid air entrainment. Level air bubbles with a brush. Multiple coats may be necessary to achieve adequate film build.
Thinner	Amerlock Sealer is typically used without thinning. If thinning is desired, use Amercoat 65 (xylene) or Amercoat 101 (recommended for > 90°F)
Cleaning solvent	Amercoat 12 Cleaner or Amercoat 65 thinner (xylene)
Primers	Direct to substrate
Topcoats	Amercoat 100A, Novoguard 840, PSX 758, Amercoat 450 Series Polyurethanes, Amershield, PSX 700, Amercoat 229T, Amercoat Epoxies, Amerlock Epoxies, Pittguard Epoxies
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.

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DRY/CURE TIMES*

	50°F	70°F	90°F
Dry to touch	18 hours	12 hours	8 hours
Dry hard	36 hours	28 hours	22 hours
Dry to recoat/ topcoat	30 hours	24 hours	18 hours
Maximum recoat / topcoat	30 days	30 days	14 days

* *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 recommended 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.

AVAILABILITY

Packaging
Available in 2-gallon kits
2-gallon kits have 1 full gallon of base in a 3-gallon container and 1 full gallon of hardener

Inventory
Global availability

Product codes
AK-0A Base
AK-0B Hardener

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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