AMERLOCK® SEALER

DESCRIPTION

Two-component, 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
- Excellent tie coat for many existing coatings

COLOR AND GLOSS LEVEL

- Clear
- Gloss

Note:

- Epoxies will characteristically chalk and fade with exposure to sunlight. Light colors are prone to ambering

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	Base/hardener: 1.1 kg/l (9.0 lb/US gal)
Volume solids	100%
VOC (Supplied)	max. 0.9 lb/US gal (approx. 109 g/l)
Temperature resistance (Continuous)	To 200°F (93°C)
Temperature resistance (Intermittent)	To 250°F (121°C)
Recommended dry film thickness	1.0 - 2.0 mils (25 - 50 µm) depending on system
Theoretical spreading rate	1604 ft^2/US gal for 1.0 mils (40.0 m^2/l for 25 µm)
Shelf life	Base: at least 36 months when stored cool and dry Hardener: at least 36 months when stored cool and dry

Notes:

- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time
- Color will drift at elevated temperatures
- Intermittent temperature resistance should be less than 5% of the time, and maximum 24 hours

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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Coating performance is, in general, proportional to the degree of surface preparation
- Use of this product 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 and will give the best possible system performance
- This product may be applied over waterjetted surfaces as well

Aluminum

- Remove all rust, dirt, moisture, grease or other contaminants from the surface
- Treat with 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 1.0 – 3.0 mils (25 – 75 µm) in accordance with SSPC SP-16.

Galvanizing

- 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 1.0 – 3.0 mils (25 – 75 µm)
- 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 abrasive blasted. Coatings may not adhere to chromate sealed galvanizing if the chromates are not completely removed.

Concrete

- 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, end efflorescence. 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 ft2 / 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

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Substrate temperature and application conditions

- Surface temperature during application should be between 40°F (4°C) and 120°F (49°C)
- Surface temperature during application should be at least 5°F (3°C) above dew point
- Ambient temperature during application and curing should be between 40°F (4°C) and 120°F (49°C)

SYSTEM SPECIFICATION

- Primers: Direct to substrate
- Topcoats: AMERCOAT 450 Series, SIGMADUR Series, SIGMACOVER Epoxies, AMERCOAT/AMERLOCK Epoxies, AMERSHIELD and PSX 700

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 1:1

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

Application

- 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

Material temperature

- Material temperature during application should be between 40°F (4°C) and 90°F (32°C)

Table of Induction time

Mixed product induction time	
Mixed product temperature	**Induction time**
40°F (4°C)	15 minutes
50°F (10°C)	15 minutes

Pot life

1 hour at 70°F (21°C)

Note:

- See ADDITIONAL DATA – Pot life

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Air spray

- Use standard conventional equipment
- Separate air and fluid pressure regulators and a moisture and oil trap in the main air supply line are recommended.

Recommended thinner

THINNER 21-06 (AMERCOAT 65) (xylene)), THINNER 21-25 (AMERCOAT 101) (recommended for > 90°F (32°C))

Volume of thinner

0 - 20%

Nozzle orifice

Approx. 0.070 in (1.8 mm)

Airless spray

- 30:1 pump or larger

Recommended thinner

THINNER 21-06 (AMERCOAT 65) (xylene)), THINNER 21-25 (AMERCOAT 101) (recommended for > 90°F (32°C))

Volume of thinner

0 - 5%, depending on required thickness and application conditions

Nozzle orifice

0.013 – 0.015 in (approx. 0.33 – 0.38 mm)

Brush/roller

- 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. Multiple coats may be necessary to achieve adequate film-build

Recommended thinner

AMERCOAT 65 (Xylene)| AMERCOAT 101 (recommended for >90°F (32°C))

Volume of thinner

Up to 5% THINNER can be added if desired

Cleaning solvent

- THINNER 21-06 (AMERCOAT 65)

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ADDITIONAL DATA

Overcoating interval for DFT up to 2.0 mils (50 µm)				
Overcoating with...	**Interval**	**50°F (10°C)**	**70°F (21°C)**	**90°F (32°C)**
recommended topcoats	Minimum	30 hours	24 hours	18 hours
	Maximum	30 days	30 days	14 days

Notes:

- 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.

Curing time for DFT up to 2.0 mils (50 µm)		
Substrate temperature	**Dry to touch**	**Dry hard**
50°F (10°C)	18 hours	36 hours
70°F (21°C)	12 hours	28 hours
90°F (32°C)	8 hours	22 hours

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
50°F (10°C)	100 minutes
70°F (21°C)	60 minutes
90°F (32°C)	30 minutes

SAFETY PRECAUTIONS

- See Safety Data Sheet and product label for complete safety and precaution requirements
- 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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WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective & Marine Coatings to supply the same product on a worldwide basis. However, 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.

REFERENCES

- Information sheet | Explanation of product data sheets

WARRANTY

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AVAILABILITY OF PACKAGING

Depending on specific country of application the following versions are available:

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

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