September 12, 2018 (Revision of May 2, 2018)

AMERLOCK® 2 AL

DESCRIPTION

Fast Dry Aluminum Epoxy Mastic Coating

PRINCIPAL CHARACTERISTICS

- Fast drying properties
- Good drying properties even at low temperatures
- Low VOC
- High performance coating for new or old steel
- Self Priming in many applications
- Formulated with lamellar aluminum flake for enhanced corrosion protection
- Compatible with adherent rust remaining on prepared surfaces

COLOR AND GLOSS LEVEL

- Dull Metallic
- Aluminum

BASIC DATA AT 68°F (20°C)

Data for mixed product	
Number of components	Two
Mass density	1.34 kg/l (11.16 lb/US gal)
Volume solids	88 ± 2%
VOC (Supplied)	max. 1.0 lb/US gal (approx. 120 g/l)
Recommended dry film thickness	4.0 - 8.0 mils (100 - 200 µm) depending on system
Theoretical spreading rate	353 ft^2/US gal for 4.0 mils (8.8 m^2/l for 100 µm)
Shelf life	Base: at least 36 months when stored cool and dry Hardener: at least 24 months when stored cool and dry

Notes:
- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Coating performance is, in general, proportional to the degree of surface preparation

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Steel

- Remove all surface contaminants, oil and grease in accordance with SSPC SP-1
- Abrasive blast with an angular abrasive to an SSPC SP-10 cleanliness or higher for tank lining service. Achieve a surface profile of 2.0 – 4.0 mils (50 – 100 µm)
- For atmospheric service, abrasive blast to SSPC SP-6 standards
- The product may be applied over an SSPC WJ-2(L) where a previous blast profile can be exposed
- 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).
- AMERCOAT 114 A may be used as a pit filler for severely pitted steel and surface discontinuities
- 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

Non-ferrous metals

- Lightly abrasive blast in accordance with SSPC SP-16 to achieve a uniform and dense 1.5-4.0 mil anchor profile. Use suitable epoxy primer

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 to determine compatibility and adhesion
- 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)

Substrate temperature and application conditions

- Surface temperature during application should be between 20°F (-7°C) and 122°F (50°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 20°F (-7°C) and 122°F (50°C)
- Relative humidity during application should be above 0% and below 90%

Note: The surface should be inspected to ensure there is no ice present on the substrate in cold weather conditions

SYSTEM SPECIFICATION

- Primers: Direct to substrate; DIMETCOTE- Series Primers, AMERCOAT 68HS
- Topcoats: AMERCOAT 450 Series Polyurethanes, AMERSHIELD, PSX 700, PSX One, AMERCOAT 220 Series Acrylics

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 50:50 (1:1)

- Pre-mix base component 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

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Induction time
None

Pot life
45 minutes at 70°F (21°C)

Note: See ADDITIONAL DATA – Pot life

Application
- Area should be sheltered from airborne particulates and pollutants
- Ensure good ventilation during application and curing
- Provide shelter to prevent wind from affecting spray patterns
- Avoid combustion gases or other sources of carbon dioxide that may promote amine blush and ambering of light colors
- Bulletin #1489 for further information on prevention, detection, and removal of amine blush

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

Air spray
- Use standard conventional equipment

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
- 45:1 pump or larger
- Can be applied with plural component equipment

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

Volume of thinner
0 - 10%, depending on required thickness and application conditions

Nozzle orifice
0.019 – 0.021 in (approx. 0.48 – 0.53 mm)

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Brush/roller

- 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

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

AMERCOAT 12 CLEANER or AMERCOAT 65 THINNER (xylene)

ADDITIONAL DATA

Overcoating interval for DFT up to 5.0 mils (125 µm)					
Overcoating with...	**Interval**	**32°F (0°C)**	**50°F (10°C)**	**70°F (21°C)**	**90°F (32°C)**
itself	Minimum	30 hours	12 hours	6 hours	3 hours
	Maximum	3 months	2 months	30 days	14 days
urethane and PSX	Minimum	30 hours	12 hours	6 hours	3 hours
	Maximum	30 days	14 days	7 days	4 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 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.

Curing time for DFT up to 5.0 mils (125 µm)			
Substrate temperature	**Dry to touch**	**Dry to handle**	**Service- water immersion**
32°F (0°C)	30 hours	48 hours	21 days
50°F (10°C)	11 hours	17 hours	7 days
70°F (21°C)	3.5 hours	7 hours	4 days
90°F (32°C)	2 hours	3.5 hours	3 days

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Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
32°F (0°C)	3 hours
50°F (10°C)	1.5 hours
70°F (21°C)	45 minutes
90°F (32°C)	30 minutes

SAFETY PRECAUTIONS

- For paint and recommended thinners see INFORMATION SHEETS 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

WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective and 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

• CONVERSION TABLES	INFORMATION SHEET	1410
• EXPLANATION TO PRODUCT DATA SHEETS	INFORMATION SHEET	1411
• SAFETY INDICATIONS	INFORMATION SHEET	1430
• SAFETY IN CONFINED SPACES AND HEALTH SAFETY, EXPLOSION HAZARD – TOXIC HAZARD	INFORMATION SHEET	1431

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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 code	Description
AK2-01A	AMERLOCK 2 Aluminum base
AK2-01B	AMERLOCK 2 Aluminum hardener