

# AMERLOCK® 600

## DESCRIPTION

Two-component, high-build, multipurpose polyamide cured epoxy coating

## PRINCIPAL CHARACTERISTICS

- Multi-purpose, self-priming epoxy
- Compatibility with a wide range of substrates and surface preparations
- Suitable for use as an intermediate coat over zinc-rich primers
- Class A slip resistance for high strength bolted connections

## COLOR AND GLOSS LEVEL

- Buff Brown, Light Tint, Neutral Tint, Pearl Gray, White
- Semi-gloss

Note:

- Epoxy coatings will chalk and fade upon exposure to sunlight, elevated temperatures, or chemical exposure. Discoloration and normal chalking do not impact performance. Light colors will darken over time. Some batch-to-batch variation in color is to be expected. Color matches are approximate.

## BASIC DATA AT 20°C (68°F)

### Data for mixed product

<b>Number of components</b>	Two
<b>Mass density</b>	1.6 kg/l (13.4 lb/US gal)
<b>Volume solids</b>	73 ± 2%
<b>VOC (Supplied)</b>	max. 1.8 lb/US gal (approx. 220 g/l)
<b>Recommended dry film thickness</b>	5.0 - 10.0 mils (125 - 250 µm) depending on system
<b>Theoretical spreading rate</b>	234 ft <sup>2</sup> /US gal for 5.0 mils (5.7 m <sup>2</sup> /l for 125 µm)
<b>Shelf life</b>	Base: at least 24 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 a maximum of 24 hours. Intermittent temperatures should be considered 300°F (149°C) and continuous 250°F (120°C)
- Mass density varies with color
- Recommended dry film thickness: May be applied at 3.0 - 10.0 mils (75-250 µm) as an intermediate when part of multi-coat system

# AMERLOCK® 600

## RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Coating performance is, in general, proportional to the degree of surface preparation
- Abrasive blasting is usually the most effective and economical method. When this is impossible or impractical, coating can be applied over mechanically cleaned surfaces
- All surfaces must be clean, dry and free of all contaminants, including salt deposits. Contact PPG for maximum allowable salt contaminant levels

### Mild steel

- Coating performance is directly proportional to the degree of surface preparation. For highest performance and service lifetime, prepare the steel substrate by abrasive blasting in accordance with SSPC-SP 6, 10, or 5. If abrasive blasting is not possible or practical, one of the following methods may be utilized: SSPC SP-2, 3, 7, 11, or 15. Ultra-high pressure water-jetting to SSPC SP WJ-2(L) / NACE WJ-2(L) or better is also acceptable on steel substrates that have been previously abrasive blasted. The choice of surface preparation will depend on the system selected and end-use service conditions. Select the highest practical level of surface preparation for maximum performance.

### Concrete

- Remove grease, oil and other penetrating contaminants according to ASTM D4258
- Abrade surface per ASTM D-4259 to remove all efflorescence and laitance, to expose subsurface voids, and to provide a surface roughness equivalent of 60 grit sandpaper or coarser
- Maximum recommended moisture transmission rate is 3 lbs/1,000 ft<sup>2</sup>/24 hours by moisture transmission test (ASTM F1869, calcium chloride test or by ASTM D4263, plastic sheet test)
- Alternatively, ASTM D4944 (Calcium Carbide Gas method) can be used where moisture content should not exceed 4%

### Non-ferrous metals and galvanized

- Abrasive blast in accordance with SSPC-SP 16 guidelines to achieve a uniform and dense 1.5 - 4.0 mils (38 – 100 µm) anchor profile. Size and hardness of abrasive should be adjusted as necessary based on the hardness of the substrate

### Aged coatings

- All surfaces must be clean, dry, tightly bonded and free of all loose paint, corrosion products or chalky residue
- Abrade surface, or clean with PREP 88. This product is compatible over most types of properly applied and tightly adhering coatings, however, a test patch is recommended to confirm compatibility

### Repair

- Prepare damaged areas to original surface preparation specifications, feathering edges of intact coating. Thoroughly remove dust or abrasive residue before touch-up.

# AMERLOCK® 600

## **Substrate temperature and application conditions**

- Substrate temperature during application should be between 35°F (2°C) and 122°F (50°C)
- Ambient temperature during application and curing should be between 35°F (2°C) and 122°F (50°C)
- Relative humidity during application should not exceed 85%

Note:

- When using PPG 861 (Amercoat 861), substrate and ambient temperature should be 20°F during application.

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## **SYSTEM SPECIFICATION**

- Direct to substrate; Primers: DIMETCOTE Series and SIGMAZINC Series
- Topcoats: PPG PMC Polyurethanes and Polysiloxanes

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## **INSTRUCTIONS FOR USE**

### **Mixing ratio by volume: base to hardener 1:1**

- Pre-mix both base and hardener 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

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### **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

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### **Material temperature**

- Material temperature during application should be between 50°F (10°C) and 90°F (32°C)

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### **Table of Induction time**

<b>Mixed product induction time</b>	
<b>Mixed product temperature</b>	<b>Induction time</b>
Below 60°F (16°C)	30 minutes
77°F (25°C)	20 minutes
90°F (32°C)	15 minutes

# AMERLOCK® 600

## Pot life

4 hours at 70°F (21°C)

Note:

- See ADDITIONAL DATA – Pot life

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## Air spray

- Use standard conventional equipment

### **Recommended thinner**

THINNER 91-92 for global, THINNER 21-06 (AMERCOAT 65) or THINNER 21-25 (AMERCOAT 101) for above 90°F (32°C) in US and Canada

### **Volume of thinner**

0 - 10%

### **Nozzle orifice**

Approx. 0.070 in (1.8 mm)

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## Airless spray

- 45:1 pump or larger
- Can be applied with plural component equipment
- Hoses should normally be kept as short as possible

### **Recommended thinner**

THINNER 91-92 for global, THINNER 21-06 (AMERCOAT 65) or THINNER 21-25 (AMERCOAT 101) for above 90°F (32°C) in US and Canada

### **Volume of thinner**

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

### **Nozzle orifice**

0.017 – 0.019 in (approx. 0.43 – 0.48 mm)

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# AMERLOCK® 600

## 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**

THINNER 91-92 for global, THINNER 21-06 (AMERCOAT 65) or THINNER 21-25 (AMERCOAT 101) for above 90°F (32°C) in US and Canada

## **Volume of thinner**

0 – 10%

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## Cleaning solvent

- THINNER 90-53, THINNER 90-58 (AMERCOAT 12) or THINNER 21-06 (AMERCOAT 65)

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## **ADDITIONAL DATA**

<b>Overcoating interval for DFT up to 75 µm (3.0 mils)</b>				
<b>Overcoating with...</b>	<b>Interval</b>	<b>35°F (2°C)</b>	<b>77°F (25°C)</b>	<b>100°F (38°C)</b>
itself / topcoat	Minimum	8 hours	4 hours	2 hours
	Maximum	12 months	12 months	12 months

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<b>Overcoating interval for DFT up to 200 µm (8.0 mils)</b>				
<b>Overcoating with...</b>	<b>Interval</b>	<b>35°F (2°C)</b>	<b>77°F (25°C)</b>	<b>100°F (38°C)</b>
itself / topcoat	Minimum	16 hours	4 hours	2 hours
	Maximum	12 months	12 months	12 months

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
- PPG 861 (Amercoat 861) accelerator recommended for temperatures below 35°F.
- Surface must be clean and dry. Any contamination must be identified and removed. Particular attention must be paid to surfaces exposed to sunlight where chalking may be present. It is advisable to prepare the surface to the highest degree possible; however, a minimum of SSPC SP1 is required. PPG Technical Service can advise on suitable cleaning methods. If maximum recoat/topcoat time is exceeded, then roughen surface.

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# AMERLOCK® 600

## Curing time for DFT up to 75 µm (3.0 mils)

Substrate temperature	Dry to touch	Dry to handle	Full cure
35°F (2°C)	4 hours	48 hours	14 days
77°F (25°C)	1.5 hours	7 hours	6 days
100°F (38°C)	1 hour	2.5 hours	4 days

## Curing time for DFT up to 200 µm (8.0 mils)

Substrate temperature	Dry to touch	Dry to handle	Full cure
35°F (2°C)	5 hours	52 hours	14 days
77°F (25°C)	2 hours	8 hours	6 days
100°F (38°C)	1.5 hours	4.5 hours	4 days

### Notes:

- Adequate ventilation must be maintained during application and curing
- PPG 861 (Amercoat 861) accelerator recommended for temperatures below 35°F.
- At temperatures < 60°F PPG 861 (Amercoat 861) accelerator (1 pint per 5 gallons) will reduce full curing time by approximately half (US supply only).

## Pot life (at application viscosity)

Mixed product temperature	Pot life
50°F (10°C)	6 hours
77°F (25°C)	4 hours
100°F (38°C)	2 hours

### Note:

- PPG 861 (Amercoat 861) accelerator (1 pint per 5 gallons) will reduce pot life by approximately half (US supply only)

## Product Qualifications

- Compliant with USDA Incidental Food Contact Requirements
- MPI Category #101,108 and 120
- NFPA Class A for Flame Spread and Smoke Development
- Qualified for Class A Slip Resistance per the Research Council on Structural Connections, Appendix A

# AMERLOCK® 600

## 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

## 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

PPG warrants (i) its title to the product, (ii) that the quality of the product conforms to PPG's specifications for such product in effect at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY PPG. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

## LIMITATIONS OF LIABILITY

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## AVAILABILITY OF PACKAGING

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

Product	Color
AK600-3	White Base
AK600-1	Buff Brown Base
AK600-B	Hardener
AK600-T3	Neutral Tint Base
AK600-T2	Light Tint Base
AK600-23	Pearl Gray Base

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