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	
Number of components	Two
Mass density	1.6 kg/l (13.4 lb/US gal)
Volume solids	73 ± 2%
VOC (Supplied)	max. 1.8 lb/US gal (approx. 220 g/l)
Recommended dry film thickness	5.0 - 10.0 mils (125 - 250 µm) depending on system
Theoretical spreading rate	234 ft^2/US gal for 5.0 mils (5.7 m^2/l for 125 µm)
Shelf life	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

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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 ft2/24 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.

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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.

SYSTEM SPECIFICATION

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

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

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 50°F (10°C) and 90°F (32°C)

Table of Induction time

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

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Pot life

4 hours at 70°F (21°C)

Note:

- See ADDITIONAL DATA – Pot life

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)

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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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%

Cleaning solvent

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

ADDITIONAL DATA

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

Overcoating interval for DFT up to 200 µm (8.0 mils)				
Overcoating with...	**Interval**	**35°F (2°C)**	**77°F (25°C)**	**100°F (38°C)**
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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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

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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

IN NO EVENT WILL PPG BE LIABLE UNDER ANY THEORY OF RECOVERY (WHETHER BASED ON NEGLIGENCE OF ANY KIND, STRICT LIABILITY OR TORT) FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO, ARISING FROM, OR RESULTING FROM ANY USE MADE OF THE PRODUCT. The information in this sheet is intended for guidance only and is based upon laboratory tests that PPG believes to be reliable. PPG may modify the information contained herein at any time as a result of practical experience and continuous product development. All recommendations or suggestions relating to the use of the PPG product, whether in technical documentation, or in response to a specific inquiry, or otherwise, are based on data, which to the best of PPG's knowledge, is reliable. The product and related information is designed for users having the requisite knowledge and industrial skills in the industry and it is the end-user's responsibility to determine the suitability of the product for its own particular use and it shall be deemed that Buyer has done so, as its sole discretion and risk. PPG has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. Therefore, PPG does not accept any liability arising from any loss, injury or damage resulting from such use or the contents of this information (unless there are written agreements stating otherwise). Variations in the application environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results. This sheet supersedes all previous versions and it is the Buyer's responsibility to ensure that this information is current prior to using the product. Current sheets for all PPG Protective & Marine Coatings Products are maintained at www.ppgpmc.com. The English text of this sheet shall prevail over any translation thereof.

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AVAILABILITY OF PACKAGING

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

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