AMERSHIELD™ VOC

DESCRIPTION

Low VOC Polyester Acrylic Polyurethane

PRINCIPAL CHARACTERISTICS

- Unique, high-solids, high build coating
- Outstanding weather resistance with excellent color and gloss retention
- Tough, flexible and abrasion resistant
- Good chemical and stain resistance
- Direct to metal and concrete in protected environments
- Compliant with California SCAQMD Rule 1113

COLOR AND GLOSS LEVEL

- Custom Colors
- Gloss

Notes:

- Certain colors, especially red, orange, and yellow may require additional coats for adequate hiding, especially if applied over primers with a significant color contrast
- Yellow, red, and orange colors will fade faster than other colors due to the replacement of lead-based pigments with lead free pigments in these colors

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Volume solids	73 ± 2%
VOC (Supplied)	max. 0.7 lb/US gal (approx. 84 g/l)
Temperature resistance (Continuous)	To 200°F (93°C)
Temperature resistance (Intermittent)	To 250°F (121°C)
Recommended dry film thickness	3.0 - 5.0 mils (75 - 126 µm) depending on system
Theoretical spreading rate	234 ft^2/US gal for 5.0 mils (5.8 m^2/l for 125 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
- 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 proportional to the degree of surface preparation. Refer to the application instructions for specifc primers and intermediate coats for application and curing procedures. Ensure epoxies are free from amine blush prior to overcoating. All previous coats must dry and free of contaminants. Adhere to all minimum and maximum topcoat times for specific primers and intermediate coats. Aged epoxy coatings require abrading prior to applying the product. A test patch over unknown coatings is recommended.

Steel

- Abrasive Blast to SSPC SP-6 or higher with a 1.0-3.0 mil surface profile
- Apply an epoxy or zinc rich primer for agressive service environments

Note:

- If abrasive blast preparation is not possible, use SSPC-SP11, power tool cleaning to bare metal (ISO-St3)

Non-ferrous metals and stainless steel

- Abrasive blast in accordance with SSPC SP-16 guidelines

Concrete

- See specific primer

Substrate temperature and application conditions

- Surface temperature during application should be between 40°F (4°C) and 120°F (49°C)
- With accelerator: Surface temperature during application should be between 32°F (0°C) and 100°F (38°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)
- With accelerator: Ambient temperature during application and curing should be between 32°F (0°C) and 100°F (38°C)
- Relative humidity during application and curing should not exceed 85%

SYSTEM SPECIFICATION

- Primers: AMERCOAT 68HS, AMERCOAT 68HS VOC, AMERCOAT 68MCZ, AMERCOAT 370, AMERCOAT 385, AMERCOAT 399, AMERLOCK-series

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 4:1

- 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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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

Material temperature

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

Pot life

2.5 hours at 70°F (21°C)

Note:

- See ADDITIONAL DATA – Pot life

Air spray

- A moisture and oil trap in the main line is essential. Product is sensitive to moisture contamination
- Use standard conventional equipment

Recommended thinner

THINNER 21-85 (97-739 THINNER (exempt)), THINNER 21-06 (AMERCOAT 65 (xylene)), THINNER 21-25 (AMERCOAT 101 (recommended for > 90°F (32°C)), THINNER 60-12 (AMERCOAT 911)

Volume of thinner

0 - 20%

Nozzle orifice

Approx. 0.070 in (1.8 mm)

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Airless spray

- 28:1 pump or larger
- Can be applied with plural component equipment

Recommended thinner

THINNER 21-85 (97-739 THINNER (exempt)), THINNER 21-06 (AMERCOAT 65 (xylene)), THINNER 21-25 (AMERCOAT 101 (recommended for > 90°F (32°C)), THINNER 60-12 (AMERCOAT 911)

Volume of thinner

0 - 10%

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" or 3/8" nap roller. Ensure brush/roller is well loaded to avoid air entrainment. Multiple coats may be necessary to achieve adequate film-build
- AMERCOAT 851 flow control additive can be used to for enhanced flow and leveling with brush and roll application
- Use of AMERCOAT 851 additive at greater than 2.5 oz/gal will increase the VOC to > 100 g/L
- Ensure the 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

Recommended thinner

PPG 97-739 (exempt), AMERCOAT 65 (xylene), AMERCOAT 101 (recommended for > 90°F (32°C)), AMERCOAT 911

Cleaning solvent

- THINNER 21-06 (AMERCOAT 65)
- THINNER 97-739 for VOC compliant only
- AMERCOAT 911
- THINNER 90-58 (AMERCOAT 12)

ADDITIONAL DATA

Overcoating interval for DFT up to 125 µm (5.0 mils)					
Overcoating with...	**Interval**	**40°F (4°C)**	**50°F (10°C)**	**70°F (21°C)**	**90°F (32°C)**
itself	Minimum	3 days	48 hours	8 hours	4 hours
	Maximum	7 days	7 days	4 days	12 hours

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Overcoating interval for DFT up to 5.0 mils (125 µm)						
Overcoating with...	**Interval**	**20°F (-7°C)**	**32°F (0°C)**	**50°F (10°C)**	**70°F (21°C)**	**90°F (32°C)**
itself + PPG 866M(AMERCOAT 866M) accelerator	Minimum Maximum	16 hours 4 days	8 hours 48 hours	4 hours 24 hours	2 hours 12 hours	1.5 hours 6 hours

Curing time for DFT up to 5.0 mils (125 µm)		
Substrate temperature	**Dry to touch**	**Dry to handle**
40°F (4°C)	8 hours	3 days
50°F (10°C)	4 hours	48 hours
70°F (21°C)	2.5 hours	10 hours
90°F (32°C)	1 hour	5 hours

Curing time when mixed with AMERCOAT 866 M for DFT up to 5.0 mils (125 µm)		
Substrate temperature	**Dry to touch**	**Dry to handle**
20°F (-7°C)	8 hours	16 hours
32°F (0°C)	4 hours	10 hours
50°F (10°C)	75 minutes	6 hours
70°F (21°C)	40 minutes	3 hours
90°F (32°C)	20 minutes	2 hours

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
50°F (10°C)	5 hours
70°F (21°C)	2.5 hours
90°F (32°C)	1.5 hours

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Pot life with AMERCOAT 866M accelerator	
Mixed product temperature	**Pot life**
50°F (10°C)	2 hours
70°F (21°C)	1 hour
90°F (32°C)	30 minutes

Product Qualifications

- Compliant with USDA Incidental Food Contact Requirements

SAFETY PRECAUTIONS

- For paint and recommended thinners see INFORMATION SHEET 1411 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 & 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

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AVAILABILITY OF PACKAGING

Packaging

- 1-gallon and 5-gallon kits; (1-gallon kits have 0.8 gallons of base and 0.2 gallons of hardener; 5 gallon kits have 4-gallons of base and 1-gallon of hardener)

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

Product	Color
AMV-3	White Base
AMV-T2	Light Tint Base *
AMV-T4	Red Tint Base *
AMV-9	Black Base
AMV-T1	Deep Tint Base *
AMV-T5	High Hiding Yellow Tint Base *
AMV-81	Safety Yellow Base
AMV-71	Safety Red Base
AMV-23	Pearl Gray Base
AM-B	Hardener
AMV-T3	Neutral Tint Base *

Note:

- * Tintable using UCD V-Line colorants only