

# 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 68°F (20°C)

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 <sup>2</sup> /US gal for 5.0 mils (5.8 m <sup>2</sup> /l for 125 µm)
Shelf life	Base: at least 24 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



# AMERSHIELD™ VOC

## RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Coating performance is proportional to the degree of surface preparation. Refer to the application instructions for specific 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.

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### **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 aggressive service environments

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

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### **Non-ferrous metals and stainless steel**

- Abrasive blast in accordance with SSPC SP-16 guidelines

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### **Concrete**

- See specific primer

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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)
- 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%

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## SYSTEM SPECIFICATION

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

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## INSTRUCTIONS FOR USE

### **Mixing ratio by volume: base to hardener 80:20 (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

# AMERSHIELD™ VOC

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**Pot life**

1 hour at 70°F (21°C)

Note: See ADDITIONAL DATA – Pot life

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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)

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**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)

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# AMERSHIELD™ VOC

## 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 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

AMERCOAT 12, 12E, or 12V Cleaner, 97-739, AMERCOAT 911 or AMERCOAT 65 thinner (xylene)

## ADDITIONAL DATA

Overcoating interval for DFT up to 5.0 mils (125 µm)					
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

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 + AMERCOAT 866 M accelerator	Minimum	16 hours	8 hours	4 hours	2 hours	1.5 hours
	Maximum	4 days	48 hours	24 hours	12 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



# AMERSHIELD™ VOC

**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

**Pot life (at application viscosity): with AMERCOAT 866 M 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 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.

# AMERSHIELD™ VOC

## 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

## 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.ppgmcc.com](http://www.ppgmcc.com). The English text of this sheet shall prevail over any translation thereof.

Packaging: Available in 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)

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

Note: \* Tintable using UCD V-Line colorants only

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