

AMERCOAT® 450 HSG / SIGMADUR 520 US

DESCRIPTION

Semi-gloss aliphatic polyurethane topcoat

PRINCIPAL CHARACTERISTICS

- Semi-gloss topcoat with unlimited recoatability
- Outstanding weather resistance with excellent color and gloss retention
- VOC compliant
- Tough, flexible and abrasion resistant
- Cures through a wide temperature range

COLOR AND GLOSS LEVEL

- Custom Colors
- Semi-gloss (45-65)

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	65 ± 2%
VOC (Supplied)	max. 2.2 lb/US gal (approx. 264 g/l)
Temperature resistance (Continuous)	To 200°F (93°C)
Recommended dry film thickness	2.0 - 4.0 mils (50 - 100 µm) depending on system
Theoretical spreading rate	521 ft ² /US gal for 2.0 mils (13.0 m ² /l for 50 µm)
Shelf life	Base: at least 24 months when stored cool and dry Hardener: at least 24 months when stored cool and dry

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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Substrate temperature and application conditions

- Surface temperature during application should be between 20°F (-7°C) and 120°F (49°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 120°F (49°C)
- Relative humidity during application should not exceed 85%

SYSTEM SPECIFICATION

- Primers: AMERCOAT 68HS, AMERCOAT 68MCZ, AMERCOAT 370, AMERCOAT 385, AMERCOAT 399, AMERLOCK 2/400, PITTGUARD Epoxies

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

Pot life

4 hours 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

Material temperature

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

Air spray

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

Recommended thinner

THINNER 21-06 (AMERCOAT 65) (xylene), THINNER 21-25 (AMERCOAT 101) (recommended for > 90°F (32°C)), THINNER 50-48 (AMERCOAT 923)

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

Recommended thinner

THINNER 21-06 (AMERCOAT 65) (xylene), THINNER 21-25 (AMERCOAT 101) (recommended for > 90°F (32°C)), THINNER 50-48 (AMERCOAT 923)

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
- 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
- 851 Flow Control Additive can be used to enhanced flow and leveling with brush and roll application
- Multiple coats may be required to achieve proper film build and hiding with roller application

Recommended thinner

THINNER 21-06, THINNER 21-25 (recommended for > 90F (32C)), THINNER 50-48

Cleaning solvent

Amercoat 12 Cleaner (Thinner 90-58) or Amercoat 65 Thinner (Thinner 21-06)

ADDITIONAL DATA

Overcoating interval for DFT up to 2.0 mils (51 µm)					
Overcoating with...	Interval	32°F (0°C)	50°F (10°C)	70°F (21°C)	90°F (32°C)
itself	Minimum	24 hours	12 hours	4 hours	2 hours
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited

Overcoating interval with AMERCOAT 866 M accelerator for DFT up to 2.0 mils (51 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	Minimum	24 hours	12 hours	6 hours	2 hours	1 hour
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited

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Curing time for DFT up to 2.0 mils (51 µm)

Substrate temperature	Dry to touch	Dry to handle
32°F (0°C)	12 hours	3 days
50°F (10°C)	4 hours	36 hours
70°F (21°C)	2 hours	18 hours
90°F (32°C)	1 hour	6 hours

Curing time with AMERCOAT 866 M accelerator for DFT up to 2.0 mils (51 µm)

Substrate temperature	Dry to touch	Dry to handle
20°F (-7°C)	8 hours	3 days
32°F (0°C)	4 hours	36 hours
50°F (10°C)	1.5 hours	8 hours
70°F (21°C)	40 minutes	2.5 hours
90°F (32°C)	20 minutes	105 minutes

Pot life (at application viscosity)

Mixed product temperature	Pot life
50°F (10°C)	6 hours
70°F (21°C)	4 hours
90°F (32°C)	2 hours

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.



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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

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Packaging: Available in 1-gallon and 5-gallon kits

Product code	Description
Contact Sales	Contact Sales

Note: * Tintable using UCD V-Line colorants only

