AMERCOAT® 385

DESCRIPTION

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

PRINCIPAL CHARACTERISTICS

- Multi-purpose high build epoxy
- High solids high build epoxy intermediate coat
- Compatibility with a wide range of substrates and surface preparations
- Excellent resistance against chemical spillage
- AMERCOAT 385 PA contains zinc phosphate for enhanced corrosion inhibitive performance, which is available in US and Asia Pacific only
- Also available with MIO pigmentation
- AMERCOAT 385 LH is formulated for a lower level of HAPs, which is available only in US

COLOR AND GLOSS LEVEL

- White, black, oxide red, buff, pearl gray

BASIC DATA AT 68°F (20°C)

Data for mixed product	
Number of components	Two
Mass density	1.4 kg/l (11.7 lb/US gal)
Volume solids	68 ± 2%
VOC (Supplied)	max. 2.6 lb/US gal (approx. 312 g/l) China GB 30981-2020 (tested) 249.0 g/l (approx. 2.1 lb/gal)
Temperature resistance (Continuous)	To 200°F (93°C)
Temperature resistance (Intermittent)	To 250°F (121°C)
Recommended dry film thickness	3.0 - 8.0 mils (75 - 200 µm) depending on system
Theoretical spreading rate	218 ft^2/US gal for 5.0 mils (5.4 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
- For immersion service, the product should be applied at a minimum of 10 mils (250 µm) dft total in 2 – 3 coats
- Do not recommend to use zinc phosphate version for immersion, Contact PPG Technical Service for immersion

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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 containment levels

Mild steel

- Remove all loose rust, dirt, grease or other contaminants by one of the following depending on the degree of cleanliness required: SSPC SP-2, 3, 6, 7 or 10 (ISO 8501-1 St-2, St-3, Sa 1, Sa 2, Sa 2.5). These minimum surface preparation standards apply to steel that has been previously abrasive blasted. The choice of surface preparation will depend on the system selected and end-use service conditions
- For immersion and severe duty applications, the recommended blast profile is 2.0 – 4.0 mils (50 – 100 µm). Previously blasted steel may be ultra-high pressure water jetted to SSPC -SPWJ-2(L) / NACE WJ-2(L). The wet surface can be dried by blowing with dry compressed air giving special attention to horizontal surfaces and recesses

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
- AMERCOAT 114 A may be used as a pit filler. Check with PPG Technical Service for alternative
- 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, moisture content should not exceed 4%

Galvanized steel

- Remove oil or soap film with detergent or emulsion cleaner
- Lightly abrasive blast with a fine abrasive in accordance with SSPC SP-16 guidelines to achieve a profile of 1.5 – 3.0 mils (38 – 75 µm). When light abrasive blasting is not possible, galvanizing can be treated with a suitable zinc phosphate conversion coating.
- Galvanizing that has at least 12 months of exterior weathering and has a rough surface with white rust present may be over-coated after power washing and cleaning to remove white rust and other contaminants
- The surface must have a measurable profile
- A test patch is recommended to determine compatibility and adhesion
- Not recommended over chromate sealed galvanizing without blasting to thoroughly remove chromates. Adhesion problems may occur

Non-ferrous metals and stainless steel

- 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
- Aluminum may be treated with a surface treatment compliant with Mil-DTL-5541 or equivalent (non-immersion applications only).

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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.

Substrate temperature and application conditions

- 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 122°F (50°C)
- Relative humidity during application should not exceed 85%

SYSTEM SPECIFICATION

- Primers: Direct to substrate; DIMETCOTE- Series Primers, AMERCOAT 68HS, AMERCOAT 68MCZ
- Topcoats: AMERCOAT 450-Series Polyurethanes, AMERSHIELD, PSX 700, AMERCOAT 229T, PITTHANE Polyurethanes

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 50:50 (1:1)

- 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

Induction time

Mixed product induction time	
Mixed product temperature	**Induction time**
Below 60°F (16°C)	30 minutes
60°F (16°C)	15 minutes
Above 75°F (24°C)	None

Pot life

3 hours 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
- 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)

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 - 20%

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

Nozzle orifice

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

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

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Cleaning solvent

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

ADDITIONAL DATA

Overcoating interval for DFT up to 8.0 mils (200 µm)						
Overcoating with...	**Overcoating Interval**	**40°F (4°C)**	**50°F (10°C)**	**60°F (16°C)**	**70°F (21°C)**	**90°F (32°C)**
itself	Minimum	3 days	42 hours	24 hours	12 hours	6 hours
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
	Maximum - immersion	30 days	30 days	30 days	30 days	30 days

Overcoating interval for DFT up to 8.0 mils (200 µm)						
Overcoating with...	**Interval**	**40°F (4°C)**	**50°F (10°C)**	**60°F (16°C)**	**70°F (21°C)**	**90°F (32°C)**
urethane and PSX	Minimum	3 days	42 hours	24 hours	12 hours	6 hours
	Maximum	3 months	2.5 months	2 months	1.5 months	1.5 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
- After 30 days but prior to the maximum recoat time, it is advisable to conduct a detergent wash with Prep 88 to ensure good subsequent adhesion. After the maximum recoat time has been exceeded, the surface must be uniformly abraded to de-gloss, and create a roughened surface for recoat

Curing time for DFT up to 8.0 mils (200 µm)			
Substrate temperature	**Dry to touch**	**Dry to handle**	**Full cure**
40°F (4°C)	8 hours	4 days	21 days
50°F (10°C)	4 hours	24 hours	14 days
60°F (16°C)	3 hours	20 hours	7 days
70°F (21°C)	2 hours	16 hours	6 days
90°F (32°C)	1 hour	10 hours	4 days

Notes:

- Adequate ventilation must be maintained during application and curing (please refer to INFORMATION SHEETS 1433 and 1434)
- Please contact your PPG representative for further details

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Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
50°F (10°C)	5 hours
70°F (21°C)	3 hours
90°F (32°C)	1.5 hours

Product Qualifications

- Mil-PRF-23236(C) Type V, Class 7, Grade C
- Military Sealift Command – Underwater hulls, topside and salt water ballast tank service
- Compliant with USDA Incidental Food Contact Requirements
- NFPA Class A for Flame Spread and Smoke Development
- NORSOK M501 Rev. 5, System 7 Subsea surfaces
- MPI Category #108

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.

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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LIMITATIONS OF LIABILITY

Packaging: Available in 2-gallon and 10-gallon kits; (2-gallon kits have 1 full gallon of base and 1 full gallon of hardener, 10 gallon kits have 5-gallons of base and 5-gallons of hardener)

Product code	Description
AT 385-1	Buff Base
AT 385-3	White Base
AT 385-9	Black Base
AT 385-23	Pearl Gray Base
AT 385-72	Oxide Red Base
AT385A-1	AMERCOAT 385PA Buff (contains zinc phosphate)
AT385A-7	AMERCOAT 385 PA Red (contains micaceous iron oxide)
AT385-B	Hardener
AT385LH23	LH Pearl Gray Base (US only)
AT385LH702	LH Solar Red Base (US only)
AT385LH-B	LH Hardener (US only)