AMERCOAT® 242

DESCRIPTION

Universal Glass Flake Epoxy Coating

PRINCIPAL CHARACTERISTICS

- High build glass flake epoxy
- Abrasion and impact resistant
- Good drying properties even at low temperatures
- Outstanding corrosion protection

COLOR AND GLOSS LEVEL

- Gray
- Low sheen

Note: Epoxy coatings will characteristically chalk and fade upon exposure to sunlight. Light colors are prone to ambering to some extent

BASIC DATA AT 68°F (20°C)

Data for mixed product	
Number of components	Two
Volume solids	88 ± 2%
VOC (Supplied)	max. 1.2 lb/US gal (approx. 144 g/l)
Recommended dry film thickness	8.0 - 20.0 mils (200 - 500 µm) depending on system
Theoretical spreading rate	71 ft^2/US gal for 20.0 mils (1.8 m^2/l for 500 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
- 3 components when post-add AMERCOAT 880 glass flake is used in AMERCOAT 240

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Coating performance is, in general, proportional to the degree of surface preparation

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Steel

- Remove weld spatter, protrusions, and laminations in steel. Grind welds smooth in accordance with NACE RP-0178
- Remove all surface contaminants, oil and grease in accordance with SSPC SP-1
- Abrasive blast with an angular abrasive to an SSPC SP-10 cleanliness or higher for tank lining service. Achieve a surface profile of 2.0 – 4.0 mils (50 – 100 µm)
- For atmospheric service, abrasive blast to SSPC SP-6 standards
- The product may be applied over an SSPC SP-12 WJ-2(L) for non-tank lining applications where a previous blast profile can be exposed.
- For touch up and repair, power tool cleaning in accordance with SSPC SP-11 is acceptable
- For maintenance and repair in atmospheric service, the product can be applied over surfaces prepared in accordance with SSPC SP-2 or SSPC SP-3 (hand and power tool cleaning).
- AMERCOAT 114 A may be used as a pit filler for severely pitted steel and surface discontinuities
- Check with PPG technical service for the maximum allowable soluble salt level for water immersion service. This will vary based on the water chemistry and service temperatures

Concrete

- Prepare in accordance with SSPC SP-13 guidelines
- Remove all surface contaminants such as oil, grease, and embedded chemicals
- Abrade the surface per ASTM D4259 to remove all chalk and surface glaze or laitance
- Mechanical surface preparation should expose sub-surface voids and provide a surface profile equivalent to 60 grit sandpaper or coarser
- Surface should be free from moisture in accordance with ASTM D4263. Refer to Information Sheet # 1496ACUS for further details regarding moisture measurements
- Slabs on grade should have a maximum moisture content of 3 lbs / 1,000 ft^2/24 hours when measured by calcium chloride test

Non-ferrous metals

- Lightly abrasive blast in accordance with SSPC SP-16 to achieve a uniform and dense 1.5-4.0 mil anchor profile. Use suitable epoxy primer

Stainless steel

- Abrasive blast in accordance with SSPC SP-16 guidelines to achieve a uniform and dense 1.5-4.0 mil anchor profile. Size and hardness of abrasive should be adjusted as necessary based on the hardness of the substrate

Aged coatings and repairs

- Ensure the coating system is sound and well adhered
- Do not apply over thermoplastic coatings or coatings that exhibit poor solvent resistance
- A test patch is recommended to determine compatibility and adhesion
- Sweep blast or otherwise thoroughly abrade the existing coating in accordance with SSPC SP-7
- Alternately, PREP 88 may be used to prepare some existing coatings. Please refer to PREP 88 data sheet for details
- Feather the edges of tightly adhered, in-tact coatings at the perimeter of repair areas
- Power tool clean the existing steel in accordance with SSPC SP-3 (atmospheric service) or SSPC SP-11 (immersion service)

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Substrate temperature

- 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 110°F (43°C)
- Relative humidity during application should be above 0% and below 85%

SYSTEM SPECIFICATION

- Primers: Direct to substrate; DIMETCOTE- Series Primers, AMERCOAT 68HS, AMERCOAT 68MCZ
- Topcoats: PITTHANE polyurethanes, AMERCOAT polyurethanes, PSX-700

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

Note: AMERCOAT 242 is supplied in a 2-component kit with pre-mixed glass flake. Alternately, AMERCOAT 880 glass flake may be added to AMERCOAT 240 at 1 gallon of glass flake per 5-gallon kit of AMERCOAT 240 to make the equivalent product. Mix base and hardener components, then slowly sift in glass flake under mechanical agitation. Mix thoroughly for 1 - 2 minutes to thoroughly incorporate the glass flake.

Induction time

Mixed product induction time	
Mixed product temperature	**Induction time**
35°F (2°C)	40 minutes
50°F (10°C)	30 minutes
70°F (21°C)	20 minutes
90°F (32°C)	10 minutes

Pot life

1.5 hours at 70°F (21°C)

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)

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Airless spray

- 64:1 pump or larger

Recommended thinner

THINNER 91-82 (AMERCOAT T-10)

Nozzle orifice

0.021 – 0.025 in (approx. 0.53 – 0.64 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

Recommended thinner

Thinner 91-82 (Amercoat T-10)

Cleaning solvent

AMERCOAT 12 CLEANER or AMERCOAT T-10 THINNER

Note: All application equipment must be cleaned immediately after use

ADDITIONAL DATA

Overcoating interval for DFT up to 6.0 mils (150 µm)					
Overcoating with...	**Interval**	**32°F (0°C)**	**50°F (10°C)**	**70°F (21°C)**	**90°F (32°C)**
itself	Minimum	24 hours	6 hours	3 hours	1.5 hours
	Maximum	2 months	1.5 months	30 days	14 days

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
- Surface must be clean and dry. Any contamination must be identified and removed. A detergent wash with PREP 88 or equivalent is required prior to application of topcoats after 30 days of exposure. However, particular attention must be paid to surfaces exposed to sunlight where chalking may be present. In those situations, a further degree of cleaning may be 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 6.0 mils (150 µm)			
Substrate temperature	**Dry to touch**	**Dry to handle**	**Service- water immersion**
32°F (0°C)	24 hours	40 hours	21 days
50°F (10°C)	12 hours	20 hours	10 days
70°F (21°C)	6 hours	10 hours	7 days
90°F (32°C)	3 hours	5 hours	4 days

Note: Drying times are dependent on air and surface temperatures as well as film thickness, ventilation and relative humidity

Pot life (at application viscosity): AMERCOAT 68 A	
Mixed product temperature	**Pot life**
50°F (10°C)	3 hours
70°F (21°C)	1.5 hours
90°F (32°C)	40 minutes

SAFETY PRECAUTIONS

- For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets

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 5-gallon kits

Product code	Description
AT242G219	Deep Gray Base
AT240-B	Hardener