AMERCOAT® 68 HS

DESCRIPTION

Three-component, zinc rich epoxy

PRINCIPAL CHARACTERISTICS

- >80% zinc in dry film
- Provides outstanding corrosion resistance
- Fast dry times for rapid topcoating
- AMERCOAT 861 accelerator can be used for low temperature curing
- Qualified primer for steel potable water tanks per ANSI/NSF 61 (U.S. production only)

COLOR AND GLOSS LEVEL

- Reddish gray
- Flat

Note:

- Green color will be made-to-order, Gray color available in Asia

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Three
Mass density	3.2 kg/l (26.7 lb/US gal)
Volume solids	70 ± 2%
VOC (Supplied)	max. 2.4 lb/US gal (approx. 288 g/l)
Temperature resistance (Continuous)	To 400°F (204°C)
Recommended dry film thickness	2.0 - 5.0 mils (50 - 125 µm) depending on system
Theoretical spreading rate	561 ft^2/US gal for 2.0 mils (14.0 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 Powder: 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
- Continous 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. All previous coats must dry and free of contaminants.

Steel

- Abrasive blast with an angular abrasive to an SSPC SP6 or higher. Achieve a surface profile of 1.0 – 3.0 mils (25 – 75 µm)
- Higher surface profiles up to 5.0 mils (125 µm) are acceptable, but the product must be applied to achieve a minimum film thickness of 2.5 mils (65 µm) above the peaks of the profile.
- Apply this product as soon as possible to prevent blasted surface from rusting
- Keep moisture, oil, grease and other organic matter off surface before coating
- For touch-up and repair, power tool cleaning in accordance with ISO St3 (SSPC SP3) is acceptable for small areas and SSPC SP11 should be specified for large repair areas where blasting is not allowed

Substrate temperature and application conditions

- Substrate temperature during application should be between 40°F (4°C) and 120°F (49°C)
- With accelerator: Substrate 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
- Relative humidity during application and curing should not exceed 85%

Notes:

- If abrasive blast preparation is not possible, use SSPC SP11, power tool cleaning to bare metal (ISO St3)
- Product can be applied without accelerator at surface and air temperatures down to 40°F (4°C). Material temperature must be maintained at 50°F to 90°F (10°C to 32°C) at the time of application. Due to the long curing time at this temperatures when accelerator is not used, it is recommended that temperatures above 50°F (10°C) are expected within 12 hours of application. Coated surfaces should be protected from moisture until dry through time is reached.
- Extreme caution should be taken to ensure there is no ice on the surface in cold weather

SYSTEM SPECIFICATION

- Primers: Direct to metal, can be used to touch up inorganic zincs such as DIMETCOTE 9-SERIES
- Topcoats: AMERSHIELD, PSX 700, AMERCOAT 450 H, AMERLOCK 2/400, AMERCOAT 385, AMERCOAT 370, AMERCOAT Epoxies, PITTGUARD Epoxies, DURETHANE DTM, PITTHANE ULTRA

SECONDARY SURFACE PREPARATION

- During storage and construction, contamination of the prefabrication primer should be limited

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INSTRUCTIONS FOR USE

Mix as packaged

- 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. Add powder component slowly under agitation until fully mixed. Strain the mixture from one container to another through a 30 mesh filter/strainer to remove any undispersed lumps.
- Agitate continuously during application

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

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Material temperature

- Material temperature during application should be between 50°F (10°C) and 90°F (32°C)

Pot life

16 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.
- Separate air and fluid pressure regulators as well as moisture and oil trap in the main air supply line are recommended.
- Use standard conventional equipment

Recommended thinner

THINNER 21-06 (AMERCOAT 65), THINNER 21-25 (AMERCOAT 101) (recommended for > 90°F (32°C), THINNER 91-82 (AMERCOAT T-10)

Volume of thinner

0 - 10%

Nozzle orifice

Approx. 0.070 in (1.8 mm)

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Airless spray

- 45:1 pump or larger

Recommended thinner

THINNER 21-06 (AMERCOAT 65), THINNER 21-25 (AMERCOAT 101) (recommended for > 90°F (32°C), THINNER 91-82 (AMERCOAT T-10)

Volume of thinner

0 - 7%

Nozzle orifice

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

Brush/roller

- Use a high-quality natural-bristle brush. Brush application is only recommended for small touch-up and/or repair areas. Roller application is not recommended.
- Ensure the brush 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

THINNER 21-06 (AMERCOAT 65), THINNER 21-25 (AMERCOAT 101) (recommended for > 90°F (32°C)), THINNER 91-82 (AMERCOAT T-10)

Volume of thinner

0 – 6%

Cleaning solvent

- THINNER 90-58 (AMERCOAT 12)
- THINNER 21-06 (AMERCOAT 65)

Cleaning procedure

- All application equipment must be cleaned immediately after use

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ADDITIONAL DATA

Application criteria for DFT up to 4.0 mils (100 µm)	
Number of coats	1
Maximum dry film thickness	4.0 mils (100 µm)
Minimum Recoat Time	16 hours
Minimum Cure to Service	Please refer to the NSF listing for the epoxy lining
Thinner	PPG 21-06 / AMERCOAT 65
Maximum thinner use	6%
Minimum tank size	50,000 gallons
Approved NSF Epoxy Linings	AMERLOCK 2, AMERLOCK 2 VOC, NOVAGUARD 810, AMERCOAT 133

Notes:

- Please reference the up-to-date listing at http://info.nsf.org/Certified/PwsComponents/Listings.asp
- U.S. production only
- Guidance on this table is when NSF application criteria for potable water is needed

Overcoating interval with AMERCOAT 861 accelerator for DFT up to 3.0 mils (75 µm)					
Overcoating with...	**Interval**	**32°F (0°C)**	**50°F (10°C)**	**70°F (21°C)**	**90°F (32°C)**
itself	Minimum	16 hours	3 hours	1 hour	30 minutes
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited
PSX 700	Minimum	16 hours	4 hours	1.5 hours	45 minutes
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited

Notes:

- Surface must be power washed as needed to remove all surface contaminants including zinc salts. Surface must be clean and dry.
- With force cure capabilities (oven temperatures of 140°F (60°C) to 180°F (82°C)), product can be overcoated after 5-15 minutes. Allow 5-10 minutes flash off prior to heating past 120°F (49°C). Addition of AMERCOAT 861 accelerator is recommended for this procedure.
- Product does not require sanding / abrading to overcoat. However, the surface must be dry and free of contaminants such as ambient contamination or zinc salts. Power washing may be used to remove zinc salts and other contaminants.

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Overcoating interval for DFT up to 3.0 mils (75 µm)					
Overcoating with...	**Interval**	**32°F (0°C)**	**50°F (10°C)**	**70°F (21°C)**	**90°F (32°C)**
various two-pack epoxy and polyurethane coatings	Minimum Maximum	N/A Unlimited	6 hours Unlimited	2 hours Unlimited	1 hour Unlimited

Notes:

- Product does not require sanding / abrading to overcoat. However, the surface must be dry and free of contaminants such as ambient contamination or zinc salts. Power washing may be used to remove zinc salts and other contaminants.
- Surface must be power washed as needed to remove all surface contaminants including zinc salts. Surface must be clean and dry.

Curing time for DFT up to 3.0 mils (75 µm)		
Substrate temperature	**Dry to touch**	**Dry to handle**
40°F (4°C)	6 hours	36 hours
50°F (10°C)	90 minutes	18 hours
70°F (21°C)	30 minutes	4 hours
90°F (32°C)	15 minutes	2.5 hours

Curing time with AMERCOAT 861 accelerator for DFT up to 3.0 mils (75 µm)		
Substrate temperature	**Dry to touch**	**Dry to handle**
32°F (0°C)	6 hours	48 hours
50°F (10°C)	1 hours	8 hours
70°F (21°C)	20 minutes	3 hours
90°F (32°C)	10 minutes	1.5 hours

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
50°F (10°C)	24 hours
70°F (21°C)	16 hours
90°F (32°C)	8 hours

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Pot life (at application viscosity) with AMERCOAT 861 accelerator	
Mixed product temperature	**Pot life**
50°F (10°C)	16 hours
70°F (21°C)	9 hours
90°F (32°C)	5 hours

Product Qualifications

- RCSC Class B slip coefficient for high strength bolted connections
- SSPC Paint 20, Type II, Level 2
- Zinc dust meets ASTM D520 Type 3 standards
- Qualified for ANSI/NSF Standard 61 (potable water). For NSF application instructions, please visit the following website: http://www.nsf.org/certified-products-systems/

SAFETY PRECAUTIONS

- See Safety Data Sheet and product label for complete safety and precaution requirements
- 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

WARRANTY

LIMITATIONS OF LIABILITY

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AVAILABILITY OF PACKAGING

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

Product	Color
AT68HS-B	Hardener
AT68HS-A	Reddish Gray Base
AT68HS-P	Zinc Powder
AT68HS-5	Green Base