AMERCOAT® 133

March 2012
Revision of February 2012

DESCRIPTION

Solvent Free Cycloaliphatic Amine Tank Lining

PRINCIPAL CHARACTERISTICS

- Excellent chemical, solvent, and water immersion resistance
- NSF approved for potable water applications
- Can be applied up to ½" on horizontal surfaces
- Available with optically active pigment to facilitate inspection of holidays

COLOR AND GLOSS

White, Oxide Red, Tank Primer Green (optically active pigment)*
Gloss

* *Epoxies will characteristically chalk and fade with exposure to sunlight. Light colors are prone to ambering.*

BASIC DATA

Volume solids	98% ± 2%
VOC	0.6 lbs/gal (72 g/L)
Recommended Dry film thickness (per coat)	6 – 12 mils; (150 – 300 microns) 2 coats
Theoretical Spread Rate	@ 1 mil dft 1,600 ft² / gallon @ 6 mils dft 267 ft² / gallon
Components	2
Shelf Life	2 years from date of manufacture

SURFACE PREPARATION

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. Achieve a surface profile of 2.0 – 4.0 mils.

  Amercoat 114A may be used as a pit filler for certain applications. Check with PPG Technical Service for guidance on chemical resistance.

  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 / clean surface in accordance with SSPC SP-13 guidelines. Abrade surface per ASTM D-4259 to remove all efflorescence and laitance, to expose sub-surface voids, and to provide a surface roughness equivalent of 60 grit sandpaper or coarser. Test for moisture by conducting a plastic sheet test in accordance with ASTM D4263. Fill voids as necessary with *Amercoat* 114A epoxy filler.

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. 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 confirm 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 mil 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).

ENVIRONMENTAL CONDITIONS

Ambient temperatures*	50°F to 100°F (10°C to 37°C)
Material temperatures	50°F to 90°F (10°C to 32ºC)
Relative humidity	0 – 85% (0 – 50% using dehumidification for tank linings)
Surface temperature	50°F to 100°F (10°C to 37°C) Surface temperature must remain at least 5°F above the dew point temperatures.
General air quality	Area should be sheltered from airborne particulates and pollutants. Avoid combustion gases or other sources of carbon dioxide that may promote amine blush. Ensure good ventilation during application and curing. For tank lining, dehumidification equipment is highly recommended. Provide shelter to prevent wind from affecting spray patterns. Refer to Information Bulletin #1489 for further information on prevention, detection, and removal of amine blush.
Ventilation	Refer to Information Bulletin #1434 for detailed information on ventilation requirements for tank lining applications.

INSTRUCTIONS FOR USE

Mixing ratio by volume

4 parts base to 1 part hardener

Pre-mix base component with a pneumatic air mixing 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

50°F	70°F	90°F
4 hours	2 hours	1 hour

Induction time

50 – 60°F	60 – 70°F	71°F +
15 minutes	10 minutes	none

Airless spray or heated plural component spray

64:1 pump or larger, 0.019-0.023 fluid tip, use of in-line heaters and insulated lines may be required for proper atomization in cold weather and with long fluid lines. Use ½" fluid lines for spray configurations requiring more than 100 feet from the pump. For plural component spray, use a 3/8", 24 element static mixer. Heat as necessary to maintain 100 – 115°F at the gun.

Brush & roll

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.

Spray application is required for tank linings with the exception of stripe coating and application for small repair areas.

Thinner	Do not thin
Cleaning solvent	*Amercoat* 12 Cleaner
Safety precautions	For paint and recommended thinners see safety sheet 1430, 1431 and relevant material safety data sheets

DRY/CURE TIMES

Amercoat 133

Temperature °F/°C	50/10	60/15	70/21	90/32	95/35	100/40
Dry Hard (hrs)	36	30	24	14	12	10
Dry to recoat/ topcoat (hrs)	26	16	10	6	4.5	3
Maximum recoat (days)	30	30	30	7	6	5
Cure to service	14 days	10 days	7 days	4 days	3.5 days	3.5 days

Heat Cure Procedures

1. Allow the final coat of the lining to achieve a dry hard condition prior to heating above 120°F.
2. Do not heat cure until after holiday detection has been accomplished (when specified).
3. Ramp heat at a rate of no greater than 2°F / minute to the target temperature
4. Surface temperatures must be measured at various elevations from top to bottom and in each cardinal direction. The lowest surface temperature must meet the minimum time/temperature requirements of the heat cure schedule. Record all temperatures.

Temperature °F/°C	110/43	120/49	130/54	140/60	150/65	160/71
Cure to service (hrs)	60	48	36	24	18	12

* *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. 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.

PRODUCT QUALIFICATIONS

- Mil-PRF-23236 (D) Type VII, Classes 5,7, and 9, Grade C
- Qualified for ANSI/NSF Standard 61 (potable water) for tanks, pipes, valves, and fittings. For NSF application instructions, please visit our website at www.ppgamercoatus.ppgpmc.com/NSF/
- AWWA C210-98
- AWWA D102-06

AVAILABILITY

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

Product codes:

AT133-5	Tank Primer Green
AT133-3	White
AT133-72	Oxide Red
AT133-B	Hardener

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