

Amercoat® 133PL

Product Data/ Application Instructions

- 100% solids two-component coating
- Smooth, high gloss finish

Typical Uses

- Gas transmission pipe lining

Typical Properties

Properties	Test Method	Results
Adhesion, elcometer	(ASTM D4541)	900 psi
Tensile Strength	ASTM D 2370-68	1409 psi
Flexural Strength (yield strength)	ASTM D 790	4819 psi
Dielectric Strength	ASTM D 149 (short term test)	1020 volts/mil
Cathodic Disbondment	ASTM G 8-72 2 months @ 3 volts	Passes

Qualifications

Meets API RP5L2 requirements for gas transmission pipe line flow coating.

Physical Data

Finish	High-gloss	
Colors	Oxide red	
Components	2	
Curing mechanism	Chemical reaction between components	
Volume solids (calculated)	100%	
Dry film thickness per coat	2-4 mils (50-100 microns)	
Theoretical coverage	ft ² /gal	m ² /L
2 mils (50 microns)	802	19.7
4 mils (100 microns)	401	9.8
Temperature Resistance (dry)	intermittent	continuous
	250°F (121°C)	200°F (93°C)

Note: If pipe exterior specification calls for fusion bonded epoxy, Amercoat 133PL will be resistant to normal short term baking temperatures required for FBE applications including exposures of 300°F - 525°F for 15 minutes. Amercoat 133PL should be applied in accordance with all application instructions. Some discoloration is possible.

	lb/gal	g/L
VOC	0.3	38
Flash point (SETA)	°F	°C
Amercoat 133PL cure	>218	>103
Amercoat 133PL resin	>200	>93
Amercoat 12	2	-17

Application Data

Applied over	Prepared steel
Surface preparation	SSPC-SP10
Method	centrifugal spray, airless spray air spray
Mixing ratio (by volume)	4 parts resin to 1 part cure
Pot life (hours)	°F(°C) 77(25) 2

Environmental conditions

Temperature	°F	°C
air and surface	50 to 90	10 to 32
material	50 to 90	10 to 32

Surface temperatures must be at least 5°F (3°C) above dew point to prevent condensation.

Dry hard times	°F(°C)				
	140(60)	120(49)	90(32)	70(21)	50(10)
	3 hours	6 hours	10 hours	16 hours	36 hours
Recoat time*					
minimum					
maximum (days)	6	10	26		
	7	30	30		

Drying 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 ambient air temperatures. Surface temperatures should be monitored, especially with sun-exposed or otherwise heated surfaces. Higher surface temperatures shorten the maximum recoat window.

**Roughen surface if maximum recoat time is exceeded.*

Time before service @ 4 mils (days)	°F/°C		
	90/32	70/21	50/10
	4	7	14

Equipment cleaner Amercoat 12

Surface Preparation

Coating performance is, in general, proportional to the degree of surface preparation. Prior to coating, the surface must be clean, dry, undamaged and free of all contaminants, including salt deposits. Round off all rough welds and remove all weld spatter.

Steel – Abrasive blast SSPC-SP10. Blast to achieve an anchor profile of 1-2 mils (25-50 microns) minimum, as indicated by a Keane-Tator Surface Profile Comparator, Testex Tape or similar device. Remove abrasive residue or dust from surface. Apply Amercoat 133PL as soon as possible to keep steel from rusting and to prevent recontamination. Do not leave blasted steel uncoated overnight. In case of contamination, remove contaminants. Spot blast if needed.

Adhere to all application instructions, precautions, conditions and limitations to obtain the maximum performance. For conditions outside the requirements or limitations described, contact your PPG representative.

Mixing and Thinning

Amercoat 133PL coating is a two component product supplied in kits which contain the proper ratio of ingredients. The entire contents of each container must be mixed together. For plural component application, mix each component thoroughly and feed to a 4:1 plural component rig.

For conventional airless application, mix the resin portion slowly for several minutes. After mixing the resin portion, add the cure slowly with continued agitation. After the cure add is complete, continue to mix slowly until the system is homogeneous.

Thinning is not required.

Application Equipment

The following is a guide; suitable equipment from other manufacturers may be used. Changes in pressure and tip size may be needed to achieve the proper spray characteristics.

Plural Component Airless spray – Heavy-duty plural component airless spray equipment with 45:1 pump ratio or greater and ¾" x 24" static mixer element, minimum.

Airless spray – Standard equipment with a ratio of 45:1 or greater. Pump should be equipped with ¾ inch internal diameter high pressure spray hose for lengths of less than 50 feet. For length greater than 50 feet, spray hose should be ½ inch internal diameter and spray tip should be .023 to .029 inch.

Power mixer – Jiffy Mixer

Brush or Roller – For touch-up only.

Application Procedure

Amercoat 133PL is packaged in the correct proportions of base and converter which must be mixed together before use.

1. Flush equipment with Amercoat 12 or T-10.
2. Apply a wet coat in even, parallel passes. Overlap each pass 50 percent to avoid bare areas, pinholes or holidays.
3. Material temperature must be between 50 and 90°F, preferably @ 75°F. Higher temperatures shorten the pot life. Lower temperatures affect sprayability.
4. Ventilate with clean air during application. Maintain air temperature to prevent condensation on coating surface.
5. Check film thickness using a wet film thickness gauge. If film is less than specified apply additional material.
6. When a pinhole-free film is required, check for bare areas, pinholes and holidays with a non-destructive wet sponge holiday detector such as Tinker-Razor Model M1 or Model AP/W. Apply additional Amercoat 133PL to areas requiring touch-up within maximum recoat time.

7. Clean equipment with Amercoat 12 cleaner immediately after use.

8. Mask off 6 inches for field welds.

Shipping Data

Shipping weight (approx)	lb	kg
5-gal unit		
cure	9.0	4.1
resin	69.0	39.4
Drums		
cure	50-gallons of cure in a 55 gallon drum	
resin	50-gallons of resin in a 55 gallon drum	

Shelf life when stored indoors at 40 to 100°F (4 to 38°C)
cure and resin 1 year from shipment date

Numerical values are subject to normal manufacturing tolerances, color and testing variances. Allow for application losses and surface irregularities.

The mixed product is nonphotochemically reactive as defined by South Coast Air Quality Management District's Rule 102 or equivalent regulations.

Safety Precautions

Read each component's material safety data sheet before use. Mixed material has hazards of each component. Safety precautions must be strictly followed during storage, handling and use.

CAUTION – Improper use and handling of this product can be hazardous to health.

Do not use this product without first taking all appropriate safety measures to prevent property damage and injuries. These measures may include, without limitation: implementation of proper ventilation, use of proper lamps, wearing of proper protective clothing and masks, tenting and proper separation of application areas. Consult your supervisor. Proper ventilation and protective measures must be provided during application and drying to keep vapor concentrations within safe limits and to protect against toxic hazards. Necessary safety equipment must be used and ventilation requirements carefully observed, especially in confined or enclosed spaces, such as tank interiors and buildings.

This product is to be used by those knowledgeable about proper application methods. PPG makes no recommendation about the types of safety measures that may need to be adopted because these depend on application environment and space, of which PPG is unaware and over which it has no control.

If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product.

Note: Consult Code of Federal Regulations Title 29, Labor, parts 1910 and 1915 concerning occupational safety and health standards and regulations, as well as any other applicable federal, state and local regulations on safe practices in coating operations.

This product is for industrial use only. Not for residential use.



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