PPG Amercoat

Amercoat® 370

370 Series

Fast-dry multi-purpose epoxy

Product Data/ Application Instructions

- High performance, corrosion resistance
- Fast drying, fast curing epoxy composition
- Application over wide range of surface temperatures from 20°F (-7°C) to 120°F (60°C)
- Self-priming, high-build coating
- Primer for wide range of topcoats
- Excellent shop primer for corrosion resistance
- Compatible with inorganic zinc silicate primers
- No lead pigments added
- VOC compliant
- Suitable for immersion in fresh and salt water
- Compatible with compromised surface preparation

Amercoat 370 forms an excellent corrosion barrier and is suitable for most industrial and marine new construction, repair, and field maintenance applications.

The fast curing properties of Amercoat 370 make it especially beneficial as a shop-applied coating where fast-drying and handling of coated parts are required.

Amercoat 370 is user-friendly and can be applied by a variety of spray application methods.

Typical Uses

Tank exteriors, structural steel, and piping in chemical plants, refineries, pulp and paper mills, offshore platforms, ship hulls, ballast tank service, anticorrosive under antifoulings and other structures exposed to severe weathering or salt spray.

Typical Properties

Physical

Abrasion (ASTM D4060) 1 kg load/1000 cycles CS-17 wheel	250 mg weight loss
Adhesion, Elcometer (ASTM D4541)	>1000 psi

Performance

Salt spray – 1 coat @ 6 mils 3000 hours exposure	
face corrosion (ASTM B117)	None
face blistering (ASTM B117)	None
Humidity (condensation) (ASTM D4585) 3000 hours exposure	
face corrosion	None
Steam cleanable	Yes
Chemical resistance – Condition after 1 year immersion	
salt water	Excellent
fresh water	Excellent

Qualifications

AWWA C550

NSF Standard 61* - For use in drinking water.

**For NSF application information, please visit our website at www.ppgamercoat.ppgpmc.com/NSF/*

Physical Data

Finish	Flat	
Color	Pearl gray, light buff, white, oxide red	
Components	2	
Curing mechanism	Solvent release and chemical reaction between components	
Volume solids (ISO 3233)	66% ± 3%	
Dry film thickness per coat	4-6 mils (100 - 150 microns)	
Coats	1 or 2	
Coverage	ft²/gal	m²/L
1 mil (25 microns)	1059	25.4
5 mils (125 microns)	212	5.1
VOC	lb/gal	g/L
mixed	2.5	300
mixed/thinned (½ pt/gal)	2.8	335
mixed/thinned (1pt/gal)	3.0	359
Temperature limit	°F	°C
continuous (dry)	200	93
intermittent (dry)	250	121
Flash point (SETA)	°F	°C
cure	82	28
resin	82	28
Amercoat 65	81	27
Amercoat 12	2	-17
Amercoat 101	145	63

Application Data

Applied over	Primed or prepared steel	
Surface preparation		
new steel	SSP-SP6	
primed steel	See specific primer	
previously painted or pitted steel	SSPC-SP10	
Primer	Dimetcote®	
Method	Airless or conventional spray	
Mixing ratio (by volume)	4 parts resin to 1 part cure	
Environmental conditions		
Temperature	°F	°C
air and surface	20 to 120	-7 to 49
material (minimum)	40	4

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

Thinner	
below 60°F	Amercoat 65
over Dimetcote or above 60°F	Amercoat 101
Equipment cleaner	Thinner or Amercoat 12

Amercoat 370 Chemical Resistance Guide

Environment	Splash and Spillage	Fumes and Weather
Acidic	F	G
Alkaline	E	E
Solvents	E	E
Salt solutions		
Acidic	G	VG
Neutral	E	E
Alkaline	E	E
Water	E	E

F-Fair G-Good E-Excellent VG-Very Good

This chart shows typical resistance of Amercoat 370. Contact your PPG representative for your specific requirements.

Systems Using Amercoat 370

1st Coat	2nd Coat	3rd Coat
Amercoat 370	–	–
Amercoat 370	Amershield™	–
Amercoat 370	450H	–
Dimetcote 9 Series, 21-5	370	Amershield, 450H
Amercoat 68HS	370	Amershield, 450H
Amercoat 370	370	ABC 3, ABC 4

Confirm compliance with VOC regulations before using coating systems. For immersion service, apply 2 coats at a minimum of 8 mils total DFT.

Over Dimetcote or Amercoat 68HS primer, a mist coat and thinning with Amercoat 101 may be required to prevent application bubbling.

Surface Preparation

Coating performance is, in general, proportional to the degree of surface preparation. Surface must be clean, dry, undamaged and free of all contaminants prior to coating.

Welds should be continuous with no overlapping steel surfaces or rough edges. Remove all weld spatter.

Steel, non-immersion – Remove all loose rust, dirt, grease or other contaminants by one of the following depending on the degree of cleanliness required: SSPC-SP2, 3, 6, 7 or 11. UHP waterjetting per SSPC SP-12 WJ2 is also acceptable.

Steel, immersion – For more severe service and immersion, clean to SSPC-SP10. The choice of surface preparation will depend on the system selected and end-use service conditions.

Blast to achieve a surface profile not to exceed 3 mils (75 microns) as indicated by a Keane-Tator Surface Profile Comparator Testex Tape. Increase coating thickness if profile greater than 3 mils.

Primed steel – Prepare surface in accordance with application instructions for the specific primer being used. Be sure primer is clean and dry when Amercoat 370 is applied. Remove all loose rust, dirt, moisture, grease or contaminants.

Repair – Prepare damaged areas to original surface preparation specifications, feathering edges of intact coating. Thoroughly remove dust or abrasive residue before touch up.

Application Equipment

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

Airless spray – Standard equipment such as Graco Bulldog Hydra-Spray or larger with a 0.015- to 0.021-inch (0.38 mm to 0.53 mm) fluid tip.

Conventional spray – Industrial equipment, such as DeVilbiss, MBC or JGA gun with 78 or 765 air can and "E" fluid tip, or Binks No. 18 or 62 gun with a 66x63PB nozzle set up. Separate air and fluid pressure regulators, mechanical pot agitator, and a moisture and oil trap in the main air supply line are recommended.

Environmental Conditions

Temperature	°F	°C
air and surface	20 to 120	-7 to 49
material	40	4

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

Application Procedure

Amercoat 370 is packaged in two components in the proper proportions which must be mixed together before use.

1. Flush equipment with thinner or Amercoat 12 before use.
2. Stir each component thoroughly, then combine and mix until uniform.
3. For general use, if thinning is necessary for workability, add Amercoat 65 below 60°F or Amercoat 101 at 60°F and above. Thin in quantities up to 1 pint per gallon of Amercoat 370. For potable water tanklining applications, see current NSF listing at www.nsf.org for approved thinner and thinning restrictions.
4. Do not mix more material than will be used within 4 hours at 70°F (21°C). Pot life is shortened by higher temperatures. Thinning may be necessary for workability periodically throughout pot life.

Pot Life and Dry Times

Temperature (°F/°C)	Pot-Life (Hours)	Touch Dry (Min.)	Through Dry (Hours)	Recoat (Hours)
20/-7	—	90	20	2½
32/0	—	60	9	2
40/4	7	45	7	2
50/10	6	30	4½	1½
60/16	5	22	2¾	1
70/21	4	15	1⅓	½
80/27	3	12	1¼	½
90/32	2	10	1	⅓

Topcoat or recoat time (days) (maximum)

	°F/°C 90/32	70/21	50/10	20/-7
Amercoat 450H, Amershield™	14	30	45	60

Amercoat 370	
non-immersion	6 months – Clean surface required *(clean and roughen if exceeded)*
immersion	1 month – Clean surface
ABC 3, ABC4	Apply while 370 is soft to thumb pressure*

** Failure to apply antifoulings while coating is still soft to thumb pressure may result in poor adhesion and eventual delamination.*

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 tempertures shorten the maximum recoat window.

If maximum topcoat time is exceeded, either clean and roughen the Amercoat 370 surface or clean and apply a tack coat of Amercoat 370 before topcoating with Amercoat 450H, Amershield or antifouling.

Time before service @ 8 mils (hours)

Amercoat 370	°F/°C 90/32	70/21	50/10	32/0	20/-7
non-immersion**	6	12	24	96	120
immersion	12	24	48	168	NR

NR=Not recommended

****Cure to full physical properties.***

5. When applying by conventional spray, use adequate air pressure and volume to ensure proper atomization.
6. When applying over inorganic zinc or zinc rich primers, a "mist coat" 1-1½ mils wet,/full coat technique may be required to minimize bubbling. This will depend on the age of the Dimetcote, surface roughness and conditions during curing. When applying Amercoat 370 over Dimetcote at 60°F and above, use Amercoat 101 thinner up to 1 pint per gallon. For potable water tanks, use only Amercoat 65 thinner.
7. Normal recommended dry film thickness is 5 mils (125 microns). Total dry film thickness must not exceed 15 mils (375 microns).

8. The application of a wet film thickness of 7 to 8 mils (175 to 200 microns) will normally provide 5 mils (125 microns) of dry film.
9. Clean all equipment with thinner or Amercoat 12 immediately after use.

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 and cause fire or explosion.

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 spray mists and 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 professional use only. Not for residential use.

Shipping Data

Packaging units	1 gal	5 gal
cure	0.2 gal in 1-qt can	1 gal in 1-gal can
resin	0.8 gal in 1-gal can	4 gal in 5-gal can

Shipping weight (approx)	lb	kg
1-gal unit		
cure	1.9	0.9
resin	14.2	6.5
5-gal can		
cure	8.6	3.9
resin	70.4	32

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, colors and testing variances. Allow for application losses and surface irregularities.

This product is photochemically reactive as defined by the South Coast Air Quality Management District's Rule 102 or equivalent regulations.

PPG Protective & Marine Coatings
www.ppgpmc.com

One PPG Place, Pittsburgh, PA 15272 • Tel: (800) 441-9695