



# Amercoat 385

## Multi-purpose epoxy (385 Series)

### Product Data/ Application Instructions

- **Excellent durability in both marine and industrial environments**
- **Compatible over inorganic zincs**
- **Outstanding chemical and weather resistance**
- **Suitable for immersion service**
- **Self-priming, economical, long-term protection**
- **Adheres to a variety of substrates such as steel, aluminium, stainless steel, concrete and previously coated surfaces**
- **Wide film build range**
- **Also available in MIO**
- **Also available as rust inhibitive pigmented version (Amercoat 385PA)**

Amercoat 385 is a high build polyamide epoxy with high solids content designed for industrial and marine use. It adheres strongly to bare steel, primed steel and inorganic zinc silicate coatings on new construction, repairs and field maintenance projects. Amercoat 385 provides an excellent barrier to corrosion; its inhibitive pigment version (385PA) affords corrosion inhibition at damage areas. Amercoat 385 can be applied by a variety of spray methods to produce a smooth fast-drying high build film. Amercoat 385 may be overcoated with itself in non-immersion conditions for an unlimited period. Antifouling must be applied to Amercoat 385 while the film is still soft to the fingernail.

#### Typical uses

**MARINE-** Decks, hulls, superstructures and ballast tanks of ships, barges and workboats.

**INDUSTRIAL –** Tank exteriors, structural steel pipes in chemical plants, refineries, pulp and paper mills and waste water treatment plants. Offshore platforms, jetties and other structures exposed to severe weathering, water, salt spray, immersion or aggressive chemical environments.

Amercoat 385 is an alternative for traditional coal tar epoxies and is suitable for immersion in both salt and fresh water. It is specifically suitable as marine ballast water tank lining. Amercoat 385 can be topcoated with amongst others PSX 700 and Amercoat 450S.

*NOTE: For immersion service use only the standard colours oxide red, RAL 7036 or RAL 1013, other colours available on request in special occasions.*

#### Physical Data

Finish.....	flat		
Colour			
Amercoat 385 .....	White, Oxide Red, RAL 1013, RAL 7035, RAL 7035MIO, RAL 7036, Black		
Amercoat 385PA.....	Oxide red, Buff		
Components 385 or 385PA .....	2		
Mixing ratio (by volume)			
Resin.....	1 part		
Cure.....	1 part		
Curing mechanism.....	solvent release and chemical reaction between components		
Volume solids 385 or 385PA .....	68% (ISO 3233)*		
VOC**			
EC SED 1999/13/EC .....	231 g/kg (326 g/l)		
UK PG6/23(92) Appendix 3 .....	225 g/l (1.9 lbs/gal)		
Dry film thickness 385 or 385PA	100 – 200 µm per coat		
	4 – 8 mil per coat		
Number of coats .....	1 or 2***		
Theoretical coverage			
At 100 microns/4 mil dft .....	6.8 m <sup>2</sup> /l	265 ft <sup>2</sup> /gal	
At 200 microns/8 mil dft .....	3.4 m <sup>2</sup> /l	133 ft <sup>2</sup> /gal	
Temperature resistance.....	Dry	Wet	
	°C	°F	°C
Continuous.....	93	200	60
Intermittent.....	120	250	79
			140
			175
Flashpoints .....	°C	°F	
Cure .....	43	109	
Resin.....	25	77	
Mixed .....	25	77	
Thinner 91-83 .....	26	79	
Thinner 21-06 .....	24	75	
Thinner 90-58 .....	24	75	
Thinners .....	Thinner 91-83 or Thinner 21-06		
Cleaner.....	Thinner 90-58		

\* Volume solids is measured in accordance with ISO 3233. Slight variations ±3% may occur due to colour and testing variances.

\*\* VOC figures are quoted according to both the EC directive 1999/13/EC which are theoretically calculated figures and the UK PG6/23(92) Appendix 3 which are practically determined figures.

\*\*\* For immersion service, apply 2 coats of Amercoat 385 at a minimum of 300µm total dry film thickness

# Amercoat 385

## Chemical Resistance Guide

When applied over suitable primer or intermediate coat:

Splash and Environment	Fumes and Spillage	Weather
Acidic	Very good	Excellent
Alkaline	Very good	Excellent
Salt solutions		
Acidic	Excellent	Excellent
Neutral	Excellent	Excellent
Alkaline	Excellent	Excellent
Water	Excellent	Excellent

This table is only a guide. For specific recommendations, contact your PPG representative for your particular corrosion protection needs.

## Global Systems using Amercoat 385

ISO 12944 classification	First coat	Intermediate	Finish Coat
C5	Dimetcote		Amercoat 385
C5	Amercoat 68 Series	Amercoat 385	Amercoat 450 Series
C4	Amercoat 385	Amercoat 385	Amercoat 450 Series
C3	Amercoat 385		Amercoat 450 Series
I5	Amercoat 385		Amercoat 385

## Surface Preparation

PRIMED STEEL - Coating performance is proportional to the degree of surface preparation. Refer to specifications of the specific primer being used. Prior to coating, primed surface must be clean, dry, undamaged and free of all contaminants including salt deposits. Round off all rough welds and remove weld spatter.

Use Amercoat 385PA when inhibitive pigmented primer is specified.

## Application Equipment

The following equipment is listed as a guide and suitable equipment from other manufacturers may be used.

Adjustments of pressure and change of tip size may be needed to obtain the proper spray characteristics.

**AIRLESS SPRAY** Standard airless spray equipment, such as Graco, DeVilbiss, Nordson-Bede, Spee-Flo or others having a 0.015 to 0.021 inch (0.38 to 0.53 mm) fluid tip.

**CONVENTIONAL SPRAY** Industrial equipment such as DeVilbiss MBC or JGA gun with 78 or 765 air cap and 'E' fluid tip and heavy mastic spring or Binks No. 18 or 62 with a 66 x 63 PB nozzle setup. Separate air and fluid pressure regulators, mechanical pot agitator and a moisture and oil trap in the main air supply line are recommended.

**MIXER** Use power mixer powered by an air motor or an explosion proof electric motor.

## Application Data

Substrate ..... Steel, aluminium, galvanizing, tightly adhering coatings

### Surface preparation

Steel..... Abrasive blast cleaning  
 Concrete ..... Abrasive blast cleaning  
 Aluminium ..... Chemical conversion or light sweepblast  
 Galvanizing ..... Amercoat 59 TW or light sweep blast

Application method..... Airless or conventional spray.  
 Touch-up of small areas can be made by brush or roller.

### Mixing ratio (volume)

Resin..... 1 part  
 Cure ..... 1 part

### Environmental conditions

Air temperature..... 5-50 °C      41-122 °F  
 Surface temperature..... 5-60 °C      41-140 °F

*Surface temperature must be at least 3°C / 5°F above the dew point to prevent moisture condensation on the surface.*

Potlife (°C/°F)                      32/90    21/70    10/50  
    1½ hrs    3 hrs    5 hrs

Drying times (°C/°F)                32/90    21/70    10/50  
 Dry to touch .....                    1 hr    2 hrs    3 hrs  
 Dry through.....                      10 hrs    16 hrs    23 hrs

Recoat or topcoat times (°C/°F)    32/90    21/70    10/50  
 Minimum time .....                    6 hrs    16 hrs    23 hrs  
 Maximum time .....                    not limited

*Maximum recoating/topcoating time intervals are dependent on temperature, degree of weathering, type of topcoat, and service conditions of the complete coating system. Consult your PPG representative for specific recommendations.*

*Drying times are dependent on temperature, ventilation and film thickness.*

Thinner ..... Thinner 91-83 or Thinner 21-06

Equipment cleaner ..... Thinner 90-58

# Amercoat 385

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## Application Procedure

Amercoat 385 is packaged in the proper mixing proportions of resin and cure.

Resin 10 L (2.6 gal) in 20 L can  
Cure 10 L (2.6 gal) in 13 L can  
Thinner: Thinner 91-83 or Thinner 21-06  
Cleaner: Thinner 90-58

1. Flush equipment with Thinner 90-58 before use.
2. Stir resin (in the larger container) to an even consistency with a power mixer.
3. Add cure to resin solution and continue stirring for 5 minutes.  
NOTE: Since the potlife is limited and shortened by high temperatures, do not mix more material than will be used in 3 hours at 20°C.
4. Thin only if necessary for workability, add up to 10% by volume of thinner.
5. Apply a wet coat in even, parallel passes. Overlap each pass 50% to avoid bare areas, pinholes or holidays. When applying directly over inorganic zincs at full thickness, bubbling may occur. A test patch is recommended and if bubbling occurs, apply a "mist coat". Consult your PPG representative for further information.
6. Double coat all welds, rough spots, sharp edges and corners, rivets, bolts, etc.
7. Application at 220 µm wet film thickness will normally provide 150 µm dry film.
8. Check thickness of dry coating with a non-destructive dry film thickness gauge, such as Mikrotest or Elcometer. If less than specified thickness, apply additional material as needed.
9. Small damaged or bare areas and random pinholes or holidays can be touched up by brush. Repair larger areas by spray.
10. In confined areas ventilate with clean air during application and drying until all solvents are removed. Temperature and humidity of ventilating air must be such that moisture condensation will not form on surface.  
# For conventional spray, use adequate air pressure and volume to ensure proper atomisation.  
# Normal recommended dry film thickness is 100 to 200 µm. However, if greater thickness is applied in local areas because of overlapping, no runs or sags will normally occur at a dry film thickness up to 250 µm. Total dry film thickness must not exceed 400 µm.
11. Clean all equipment with Thinner 90-58 immediately after use or at least after each working day or shift. When left in spray equipment, Amercoat 385 will cure and cause clogging.

## Shipping Data

### Packaging 20 l

Resin..... 10 L (2.6 gal) in 20 L can  
Cure ..... 10 L (2.6 gal) in 13 L can

### Shipping weight

	kg	lb
Resin.....	approx. 16.5	36
Cure .....	approx. 15	33

### Packaging 5 l

Resin..... 2.5 L (0.66 gal) in 5 L can  
Cure ..... 2.5 L (0.66 gal) in 2.5 L can

### Shipping weight

	kg	lb
Resin.....	approx. 4.3	9.5
Cure .....	approx. 3.6	7.9

### Shelf life

Resin and cure ..... 1 year from shipment date when stored indoors in unopened, original containers at 5 to 40°C (41 to 104°F)

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## Caution

This product is flammable. Keep away from heat and open flame. Keep container closed. Use with adequate ventilation. Avoid prolonged and repeated contact with skin. If used in confined areas, observe the following precautions to prevent hazards of fire or explosion or damage to the health:

1. circulate adequate fresh air continuously during application and drying;
2. use fresh air masks and explosion proof equipment;
3. prohibit all flames, sparks, welding and smoking.

Do not empty into drains. Take precautionary measures against static discharges. For specific information on hazardous ingredients, required ventilation, possible consequences of contact and safety measures see Safety Data Sheet.

## Safety

Since improper use and handling can be hazardous to health and cause of fire or explosion, safety precautions included with Product Data/Application Instruction and Material Safety Data Sheet must be observed during all storage, handling, use and drying periods.

## Warranty

PPG warrants its products to be free from defects in material and workmanship. PPG's sole obligations and Buyer's exclusive remedy in connection with the products shall be limited, at PPG's option, to either replacement of products not conforming this warranty or credit to Buyer's account in the invoiced amount of the non-conforming products. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life, or one year from the delivery date, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

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To avoid any confusion that may arise through translation into other languages, the English version of the Product Data/Application Instructions will be the governing literature and must be referred to in case of deviations with product literature in other languages.

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