



# AMERCOAT 477

JANUARY 2008

## Rapid Cure Multi-purpose Epoxy

### Product Data

- High performance, corrosion resistance.
- Specifically designed for topcoating with PSX range of topcoats
- Fast drying, fast curing epoxy composition.
- Self-priming, high-build coating.
- Zinc Phosphate containing
- No lead pigments added.
- High solids.
- Phthalate and phenol free.

Amercoat 477 forms an excellent corrosion barrier and is suitable for most industrial new construction, repair and field maintenance applications.

Amercoat 477 is user-friendly and can be applied by a variety of spray application methods. Amercoat 477 can be applied direct to clean steel as a barrier coat for mild non-aggressive environments.

### Typical Uses

As a primer coat for applications requiring PSX topcoat products.

Tank exteriors, structural steel and piping in chemical plants, refineries, pulp and paper mills, bridges, power stations, offshore platforms, ballast tanks service, and other structures exposed to severe weathering or salt spray.

### Shipping Data

Packaging units

477B	1L, 4L
477A	4L (2L), 20L(8L)

Shelf life when stored indoors at 4 to 38°C

477A and 477B	1 year from shipment date
---------------	---------------------------

*Numerical values are subject to normal manufacturing tolerances, colours 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.*

### Physical Data

Finish	Semigloss
Colour	Tinted colours available at POS
Components	2
Curing mechanism	Solvent release and chemical reaction between components
Volume solids	63% ± 3%
Coats	1 or 2
Dry film thickness per coat	100 – 150 microns
Coverage	m <sup>2</sup> /L
100 microns	6.3
125 microns	5.0
VOC	g/L
Mixed	322
Mixed / thinned (10%)	370
Temperature limit	°C
Continuous (dry)	93
Intermittent (dry)	121
Flash point (SETA)	°C
477B	4
477A	4
470T	4

### Systems Using Amercoat 477

1 <sup>st</sup> Coat	2 <sup>nd</sup> Coat	3 <sup>rd</sup> Coat
Amercoat 477	-	-
Amercoat 477	PSX1015/1025	
Amercoat 471	477	477
Amercoat 471	477	PSX1015/1025
Amercoat 471	477	Amercoat 450HD

# Application Instructions

Adhere to all application instructions, precautions, conditions and limitations during storage, handling, application and drying periods to obtain the maximum performance. For conditions outside the requirements or limitations described contact your PPG Industrial Coatings representative.

## 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, new – Remove all loose rust, dirt, grease or other contaminants to AS1627.4 Class 2. For previously painted or pitted steel blast to AS1627.4 Class 2 ½.

Blast to achieve a surface profile not to exceed 75 microns as indicated by a Keane-Tator Surface Profile Comparator Testex Tape. Increase coating thickness if profile great than 75µm.

Primed steel – Prepare surface in accordance with application instructions for the specific primer being used. Be sure primer is clean and dry when Amercoat 477 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 0.38mm to 0.53mm fluid tip.

Conventional spray – Industrial equipment, such as De Vilbiss MBC or JGA gun with 78 or 765 air can and “E” fluid tip or Binks No. 18 or 62 gun with a 66 x 63PB 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.

## Application Data

Applied over	Primed or prepared steel
Surface preparation	
New steel	AS1627.4 Class 2
Primed steel	See specific primer
Previous painted or pitted steel	AS1627.4 Class 2 ½
Primer (optional)	Amercoat 471
Method	Airless or conventional spray
Mixing ratio (by volume)	2 parts 477A to 1 part 477B

## Environmental Conditions

Temperature	°C
Air and surface	0 to 49
Material (minimum)	4
Surface temperatures must be 3°C above the dew point to prevent condensation.	
Thinner	470T
Equipment cleaner	470T

## Pot Life and Dry Times

Temp (°C)	Pot-Life (Hours)	Touch Dry (Min)	Through Dry (Hrs)	Recoat (Hours)
5	6	120	7	4
15	3	90	45	3
25	2	60	3	2
40	0.75	30	1	1

**Topcoat or recoat time** (maximum) – 1 week

## Environmental Conditions

Temperature	°C
Air and surface	0 to 49
Material (minimum)	4
Surface temperatures must be 3°C above the dew point to prevent condensation.	

## Application Procedure

Amercoat 477 is packaged in two components in the proper proportions which must be mixed together before use.

1. Flush equipment with thinner before use.
2. Stir each component thoroughly, then combine and mix until uniform.
3. If thinning is necessary for workability, add 470T or 470TS. Thin in quantities 5-20% as required.



# AMERCOAT 477

## 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 spray mists and vapour 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 Industries makes no recommendation about the types of safety measure that may need to be adopted because these depend on application environment and space, of which PPG Industries 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.**

*This product is for industrial use only.*

4. Do not mix more material than will be used within 4 hours at 21°C. Pot life is shortened by higher humidity and temperatures. Thinning may be necessary for workability periodically throughout pot life.

### Pot Life and Dry Times

Temp (°C)	Pot-Life (Hours)	Touch Dry (Min)	Through Dry (Hrs)	Recoat (Hours)
5	6	120	7	4
15	3	90	4.5	3
25	2	60	3	2
40	0.75	30	1	1

### Topcoat or recoat time (maximum) – 1 week

5. When applying by conventional spray, use adequate air pressure and volume to ensure proper atomisation.
6. Normal recommended dry film thickness is 125 microns. Total dry film thickness must not exceed 375 microns.
7. The application of a wet film thickness of 175 to 200 microns will normally provide 125 microns of dry film.
8. Clean all equipment with 470T immediately after use.

Technical information given verbally or in writing is based on knowledge and research, given in good faith and believed to be reliable, but no guarantee of accuracy is made or implied. Since methods and conditions of use are beyond our control, all merchandise is sold and received subject to the condition that our liability whether express or implied for any defect in quality, or for any lack of fitness for the specified use thereof, is limited to the return of the purchase price if written claim is made within 14 days from date of delivery. It is recommended that the user makes his or her own tests to determine the suitability of the product for his own requirements. Freedom from patent restrictions is not implied.

PPG Industries NZ Ltd • 5 Monahan Road • Mt Wellington • Auckland • Phone 0800-263 766 • Fax 0800-659 377