



# Amercoat 4274

## Epoxy zinc phosphate primer

(formerly Steelguard 1274)

### Product Data/ Application Instructions

- Superior, fast drying two pack epoxy primer
- Complies with BS 5493:1977 - Table 4A Type AP1A
- EPA compliant as a blast primer
- Network Rail approved
- Excellent adhesion to blast cleaned steel
- Rapid overcoating properties

#### Typical Uses

Anticorrosive primer for general structural steel operating in a wide range of environmental conditions such as bridges, marine structures, petroleum processing and storage facilities, chemical and power plants and other heavy industrial facilities.

#### Approvals

Amercoat 4274 is approved and registered to Network Rail RT98 specification item 7.1.2.

#### Outstanding Characteristics

Amercoat 4274 exhibits excellent anti-corrosion properties in combination with suitable intermediates and topcoats. It is particularly suitable as a high build anticorrosive primer for use with Amercoat4560GF epoxy glass flake coating.

#### Physical Data

Finish .....	low sheen
Colour .....	approx. BS 12B21
Components .....	2
Mixing ratio (by volume)	
resin .....	3 parts
cure .....	1 part
Curing mechanism .....	solvent release and reaction between components. Effective cure down to 5°C/41°F
Volume solids : .....	44+/-2%
VOC .....	484 g/l
Dry film thickness .....	50-100 µm per coat
	<b>typical minimum maximum</b>
Dry film thickness (µm)	50 40 100
Wet film thickness (µm)	114 91 227
(wet film thicknesses quoted are typical for one airless spray coat)	
Number of coats .....	1
Calculated coverage .....	8.8 m <sup>2</sup> /l at 50 µm
Allow for application losses, surface irregularities, etc.	
Specific gravity .....	1.36 kg/l (mixed product)
Flash points	
(Closed Cup).....	°C °F
resin .....	8 46
cure .....	3 37
Amercoat 18 .....	25 77
Amercoat 12 cleaner.....	24 75

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## Surface preparation

**STEEL:** Abrasive blast clean to ISO 8501-1, Sa2<sup>1/2</sup>. The blast profile achieved should be within the range 50 to 100 microns. Priming should occur before degradation of the surface takes place. If oxidation occurs then the surface should be re-prepared.

**GALVANIZED STEEL:** Ideally, lightly sweep blast with fine abrasive. Where this is impractical thoroughly degrease the surface and apply Amercoat 59TW in accordance with the product data instructions. In all cases the surface must be dry and free of dust, salts, grease and other contaminants immediately before coating.

## Mixing

Stir the resin component thoroughly, then add the cure and continue mixing until the product is uniform throughout. A powerful mixer should be used.

## Application

**AIRLESS SPRAY:** Use standard airless spray equipment capable of producing a minimum pressure at the tip of 2800 psi (200 kg/cm<sup>2</sup>). Tip size range 15-17 thou (0.38-0.43mm). Adjustments to pressure and tip size/angle may be necessary to obtain spray characteristics required for specific substrate configurations.

**BRUSH/ROLLER:** Application by these methods should be limited to small areas only such as repairs and when stripe coating. Apply evenly using a clean, well-loaded brush or roller. With this application more than one coat may be necessary to achieve the required dry film thickness.

## Overcoating

Typically overcoated with epoxy primers and intermediates such as Amercoat3905, Amercoat3926 and Amercoat4560GF. There are no maximum overcoating restrictions with these products provided the Amercoat 4274 is clean, dry and free of contamination before overcoating.

## Application Data

Substrate .....	blasted steel			
Application methods .....	airless spray, brush or roller			
Induction time (at 20°C/68°F) .....	not applicable			
Potlife (at 20°C/68°F) .....	16 hours			
Drying characteristics	°C/°F			
	Temperature	5/41	10/50	20/68
Touch dry	2 hours	1 hour	30 mins	
Hard dry	8 hours	4 hours	2 hours	
Overcoating (minimum)	16 hours	4 hours	2 hours	
Overcoating (maximum)	-	-	-	

Note: All information relates to the typical dry film thickness. Potlife and drying times are dependent on prevailing temperatures.

### Environmental conditions

Amercoat 4274 should only be applied within the limits of temperature and humidity set out below.

Relative humidity: ..... Up to 90%  
Surface temperature: ..... Minimum 5°C/41°F  
..... Maximum 40°C/104°F

The surface temperature must also be at least 3°C/5°F above the dew point during application.

Thinner ..... Amercoat 18

Cleaner ..... Amercoat 12 cleaner

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## Application procedure

1. Clean the equipment with the recommended cleaning solvent before use.
2. Stir the resin component thoroughly, then add the cure and continue mixing until the product is uniform throughout. A powerful mixer should be used. Thinning is not required.
3. For airless spray, apply a wet even coat in parallel passes. Overlap each pass by 50% to avoid bare areas, pinholes or holidays.
4. Give special attention to welds, rough spots, sharp edges and corners, rivets, bolts, etc.
5. Application at 115um wet film thickness will normally provide 50um dry film.
6. 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.
7. Small damaged or bare areas and random pinholes or holidays can be touched up by brush. Repair larger areas either by spray, brush or roller using Amercoat 4274.
8. In confined areas ventilate with clean air during application and drying. The humidity should be maintained below 90% and the temperature such that moisture condensation will not form on the surface.
9. Clean all equipment with fresh, clean solvent immediately after use.

**Before using the product, read the label on the can and consult the material safety data sheet.**

## Shipping Data

Packaging.....	5 and 20 litres in two part units
resin for 20 l unit .....	15 l in 20 l can
resin for 5 l unit .....	3.75 l in 5 l can
cure for 20 l unit.....	5 l in 5 l can
cure for 5 l unit.....	1.25 l in 1 l can

### Shipping weight (approx)

.....	20 l unit	5 l unit
resin .....	25 kg	6 kg
cure .....	5 kg	1.5 kg

Shelf life .....	1 year from shipment date or as indicated on label when stored indoors in unopened, original containers at 5 to 40°C (41 to 104°F).
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## **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**

Ameron warrants its products to be free from defects in material and workmanship. Ameron's sole obligations and Buyer's exclusive remedy in connection with the products shall be limited, at Ameron'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 Ameron 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 Ameron of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

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Due to Ameron's policy of continuous product improvement, the information contained in this Product Data/Application Instructions sheet is subject to change without notice. It is the Buyer's responsibility to check that this issue is current prior to using the product. For the most up-to-date Product Data/Application Instructions always refer to the Ameron Performance Coatings & Finishes website at [www.amerondirect.co.uk](http://www.amerondirect.co.uk)

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.

## **Condition of Sale**

All our transactions are subject to our Terms and Conditions of Sale.