



Amercoat 4377

Surface tolerant, high solids epoxy undercoat

formerly Steelguard 3377

Product Data/ Application Instructions

- **Surface tolerant two pack epoxy coating**
- **EPA compliant**
- **High build, high solids and low VOC**
- **BBA HAPAS approved**
- **Excellent adhesion to abraded existing coatings**
- **Excellent abrasion and impact resistance**
- **Compatible with most aged coatings**

Typical Uses

Surface tolerant maintenance coating for general structural steel such as bridges, marine structures, petroleum processing and storage facilities, chemical and power plants and other heavy industrial facilities.

Approvals

Amercoat 4377 is approved and registered to BBA HAPAS Roads and Bridges Certificate Reference 05/H116 (Highways Agency specification item 116).

Outstanding Characteristics

Amercoat 4377 exhibits excellent adhesion to manually prepared rusty steel surfaces thus providing long term corrosion resistance when used in combination with suitable intermediate and topcoats. Compatibility is excellent with most aged coating systems and is therefore the ideal solution to the upgrading of aged systems without the need for their complete removal.

Physical Data

Finish	semi gloss		
Colour	light grey (approx. BS4800 00A05), medium grey (approx. 00A09), off white		
Components	2		
Curing mechanism	solvent release and reaction between components. Effective cure down to 5°C/41°F		
Volume solids	82+/-3%		
VOC	185 g/l		
Dry film thickness	typical	minimum	maximum
Dry film thickness (µm)	125	75	200
Wet film thickness (µm)	152	91	244
(wet film thicknesses quoted are typical for one airless spray coat)			
Number of coats	1		
Calculated coverage	6.6 m ² /l at 125 µm		
Allow for application losses, surface irregularities, etc.			
Induction time (at 20°C/68°F)	not applicable		
Mixing ratio (by volume)			
resin	4 part		
cure	1 part		
Thinner	Amercoat 65		
Cleaner	Amercoat 12		
Specific gravity	1.80 kg/l (mixed product)		
Flash points (Closed Cup)	°C	°F	
resin	37	99	
cure	35	95	
Amercoat 65	24	75	
Amercoat 12	24	75	



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Surface preparation

Performance will be dependent upon the degree of surface preparation. With manual preparation, hand or power tool clean to a minimum standard conforming to ISO 8501-1 St2. Amercoat 4377 may also be applied to a blast cleaned surface, typically of standard ISO 8501-1 Sa2^{1/2}. The blast profile should be within the range 50 to 100 microns.

Brush or roller application is recommended on manually prepared surfaces, with spray application limited to blast cleaned surfaces.

Amercoat 4377 can also be applied to existing aged coating systems. Loose and flaking coatings should be removed and feathered back to a firm edge. Remaining glossy coatings such as epoxy and polyurethane should be abraded and degreased prior to application. A test area is advised to ensure compatibility and no reaction with the existing coating.

In all cases the surfaces 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/cm²). Tip size range 18-21 thou (0.46-0.53mm)..

BRUSH/ROLLER: Apply evenly using a clean, well-loaded brush. A maximum dft of 125 microns by brush and 100 microns by roller is achievable in one coat.

Overcoating

Typically overcoated with itself or finishes such as Amercoat 450E and Amercoat 450E SG. There are no maximum overcoating restrictions with these products provided the Amercoat 4376 is clean, dry and free of contamination before overcoating.

Application Data

Substrate	primed steel or tightly adhering existing coatings
Surface Preparation	refer to the typical systems table for specific recommendations
Application methods	airless spray, brush or roller

Environmental conditions

Amercoat 4377 should only be applied within the limits of temperature and humidity set out below.

Relative humidity:..... up to 90%

Surface temperature:..... 2 - 40°C 36-104°F

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

Pot life (at 20/68°F) 2 hours

Drying time (°C/°F)	5/41	10/50	20/68
touch dry (hours).....	16	8	4
hard dry (hours)	20	12	6

Overcoating times (°C/°F)	5/41	10/50	20/68
Minimum (hours).....	16	8	6
Maximum	-	-	-

Potlife and drying times are dependent on prevailing temperatures.

Note: All information relates to the typical dry film thickness.

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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 150µm wet film thickness will normally provide 125µm 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 4377.
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 litre in two part units
resin for 5 l unit	4 L in 5 L can
cure for 5 l unit	1 L in 1 L can
Shipping weight (approx).....	5 L unit
resin	8.5 kg
cure	1 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 (41-104°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 application instructions must be observed during all storage, handling, use and drying periods.

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.

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-confirming 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.

Ameron makes no other warranties concerning the product. No other warranties, whether express, implied or statutory, such as warranties of merchantability or fitness particular purpose, shall apply. In no event shall Ameron be liable for consequential or incidental damages.

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