



Amercoat 4374

High solids epoxy MIO intermediate coating

formerly Steelguard 3373R

Product Data/ Application Instructions

- **Superior two pack extended cure epoxy MIO intermediate**
- **EPA compliant**
- **Complies with BS 5493:1977 - Table 4K Type KF1E/F & KU1C/D**
- **High build, high solids and low VOC**
- **BBA HAPAS approved**
- **Superior adhesion to prepared galvanized steel**
- **Excellent abrasion and impact resistance**
- **Excellent barrier properties**

Typical Uses

Micaceous iron oxide pigmented coating for general structural steel, primer over T-Washed galvanized steel and as a sealer for aluminium metal sprayed steel in Highways Agency specifications for bridge bearings, CCTV masts and lighting columns operating in a wide range of environmental conditions.

Approvals

Amercoat 4374 is approved and registered to BBA HAPAS Roads and Bridges Certificate Reference 05/H116 (Highways Agency specification item 121).

Outstanding Characteristics

Amercoat 4374 exhibits excellent barrier properties thus providing enhanced anti-corrosion performance when used in combination with suitable primers and topcoats.

Physical Data

Finish	matt, metallic sparkle		
Colour	natural grey, medium grey		
Components	2		
Curing mechanism	solvent release and reaction between components. Effective cure down to 5°C/41°F		
Volume solids	72+/-3%		
VOC	240 g/l		
Dry film thickness	100-200 µm per coat		
	typical	minimum	maximum
Dry film thickness (µm)	125	100	200
Wet film thickness (µm)	174	139	278
(wet film thicknesses quoted are typical for one airless spray coat)			
Number of coats	1		
Calculated coverage	5.8 m ² /l at 125 µm		
Allow for application losses, surface irregularities, etc.			
Potlife (at 20°C/68°F)	4 hours		
Drying time (at 20°C/68°F)			
dry to handle	6 hours		
dry to recoat.....	6 hours		
Potlife and drying time are dependent on prevailing temperatures.			
Induction time (at 20°C/68°F)	not applicable		
Mixing ratio (by volume)			
resin	5 parts		
cure	1 part		
Specific gravity	1.96 kg/l (mixed product)		
Flash points (Closed Cup).....	°C	°F	
resin	30	86	
cure	30	86	
Amercoat 18	25	77	
Amercoat 12	24	75	
Thinner	Amercoat 18		
Cleaner	Amercoat 12		



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Surface preparation

METAL SPRAY: Should be applied to the metal spray surface within 4 hours of the metal spray application. In all cases the surface must be dry and free of dust, salts, grease and other contaminants immediately before coating.

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/cm²). Tip size range 17-19 thou (0.43-0.48mm). 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 finishes such as Amercoat 450E, 450E SG and Amercoat 440HS. Can also be overcoated with itself to increase the coating thickness. There are no maximum overcoating restrictions with these products provided the Amercoat 4374 is clean, dry and free from contaminants before overcoating. If being used as a stripe coat with itself then Amercoat 4374 can be applied using a wet-on-wet technique.

Application Data

Substrate primed steel

Surface Preparation refer to the typical systems table for specific recommendations

Application methods airless spray, brush or roller

Environmental conditions
Amercoat 4374 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.

As with most coatings early contact with water can result in water spotting damage. Care should be taken to protect the coating during the early stages of cure to prevent water marking

Drying times (°C/°F)	5/41	10/50	20/68
Touch dry	8	4	2
Hard dry	24	12	6
Overcoating times (°C/°F)	5/41	10/50	20/68
Minimum (hours)	24	12	6
Maximum	-	-	-

This product will cure down to 0°C/50°F, however drying times will be extended.

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 175µm 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 4374.
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	16.67 l in 20 l can	
resin for 5 l unit	4.17 l in 5 l can	
cure for 20 l unit	3.33 l in 5 l can	
cure for 5 l unit.....	0.83 l in 1 l can	
Shipping weight (approx).....	20 l unit	5 l unit
resin	38 kg	10 kg
cure	4 kg	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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