



Amercoat 3654

Surface tolerant high build epoxy

(formerly Steelguard 3654)

Product Data/ Application Instructions

- **Surface tolerant two pack epoxy coating**
- **EPA compliant**
- **High build, high solids and low VOC**
- **Network Rail approved**
- **Excellent adhesion to manually prepared surfaces**
- **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 3654 is approved and registered to Network Rail RT98 specification item 7.1.7.

Outstanding Characteristics

Amercoat 3654 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	Limited range
Components	2
Mixing ratio (by volume)	
resin	1 part
cure	1 part
Curing mechanism	solvent release and reaction between components. Effective cure down to 5°C/41°F
Volume solids :	85+/-3%
VOC	160 g/l
Dry film thickness	100-200 µm per coat
	typical minimum maximum
Dry film thickness (µm)	125 100 200
Wet film thickness (µm)	147 118 235
(wet film thicknesses quoted are typical for one airless spray coat)	
Number of coats	1
Calculated coverage	8.5 m ² /l at 100 µm
Allow for application losses, surface irregularities, etc.	
Specific gravity	1.42 kg/l (mixed product dependent on colour)
Flash points	
(Closed Cup).....	°C °F
resin	40 104
cure	43 109
Amercoat 18	25 77
Amercoat 12 cleaner	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 3654 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 3654 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 18-25 thou (0.46-0.64mm)..

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

Overcoating

Typically overcoated with finishes such as Amercoat 450S and Amercoat 440HS. There are no maximum overcoating restrictions with these products provided the Amercoat 3654 is clean, dry and free of contamination before overcoating.

Application Data

Substrate	steel		
Application methods	airless spray, brush or roller		
Potlife (at 20°C/68°F)	2 hours		
Drying characteristics	°C/°F		
	Temperature	10/50	20/68
Touch dry	10 hours	4 hours	
Hard dry	24 hours	16 hours	
Overcoating (minimum)	6 hours	4 hours	
Overcoating (maximum)	Indefinite with suitable topcoat		

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

Potlife and drying times are dependent on prevailing temperatures.

Induction time (at 20°C/68°F) not applicable

Environmental conditions

Amercoat 3654 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

Amercoat 3654

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 120µm wet film thickness will normally provide 100µm 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 3654.
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

Shipping weight (approx)

.....	20 l unit	5 l unit
resin	18 kg	5 kg
cure	13 kg	3 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.

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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In no event shall Ameron be liable for consequential or incidental damages.

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

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.