

Amercoat 71TC

Polyamide Cured Epoxy Tiecoat

Product Data/ Application Instructions

- A superior epoxy polyamide tiecoat
- Forms durable coating systems with a wide range of topcoats for immersion and non-immersion services
- Suitable for a variety of non-ferrous substrates
- Tiecoat over Dimetcote range of zinc silicates
- Tiecoat between epoxy anti-corrosive coatings and ABC antifoulings

Typical Uses

As a tie-coat for Dimetcote zinc silicates or primer for non-ferrous substrates within high performance coating systems designed for both immersion and non-immersion service, including offshore platforms and related structures, petrochemical facilities, power plants, tankage, bridges, ships, workboats and barges. Also applied directly to steel as a holding primer or in systems designed for immersion service.

In nuclear power plants including containment, also used for areas subjected to radiation, decontamination and waste handling facilities.

For Marine applications, also used as a tiecoat between anti-corrosive coatings and ABC antifoulings to provide an extended overcoating window.

Your PPG representative will be pleased to help you evaluate your particular protection needs and make correct recommendations to suit your specific requirements. Refer also to individual topcoats for more detailed information on complete primer/topcoat systems.

Outstanding Characteristics

With the proper topcoat, the tiecoat withstands splash or spillage of water, solvents, chemicals and petroleum products, but also immersion in fresh water or seawater salt solutions and sour crude.

Suitable topcoats are Amercoat epoxies, coaltar epoxies, acrylics, alkyds, polyurethane coatings and ABC antifoulings.

Physical Data

Finish	flat
Colour	off white, oxide red
Components	2
Mixing ratio (by volume)	
resin	4 parts
cure	1 part
Curing mechanism	solvent release and reaction between components
Volume solids :	51% (ISO 3233) *
VOC**	
EC SED 1999/13/EC	381 g/kg (488 g/l)
UK PG6/23(92) Appendix 3	435 g/l (3.6 lbs/gal)
Dry film thickness	50 – 100 µm per coat (2-4 mils)
Number of coats	1
Calculated coverage	10.2 m ² /l at 50 µm (110 sqft at 2 mils)
Allow for application losses, surface irregularities, etc.	
Specific gravity	1.28 kg/l (mixed product) (10.6 lbs/gal)
Flash points (Closed Cup)	°C °F
resin	21 70
cure	30 86
Amercoat 9HF	26 79
Amercoat 12	24 75

* Volume solids is measured in accordance with ISO 3233 modified. Slight variations ± 3% may occur due to colour and testing variances.

** VOC figures are quoted according to both the EC directive 1999/13/EC which are theoretically calculated figures and the UK PG6/23(92) Appendix 3 which are practically determined figures

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Surface Preparation - Primer

STEEL - Blast in accordance with Sa 2½, ISO 8501-1 or Steel Structures Painting Council SP-10. NOTE: blast to achieve a 25 to 50 µm profile as determined with Testex Tape or similar instrument. Remove abrasive residues and dust from surface.

NEWLY GALVANISED SURFACES - Remove any oil or soap film with Amercoat 57 oil cleaner, treat surface in accordance with instructions for Amercoat 59TW zinc treatment, or lightly blast with fine abrasive.

WEATHERED GALVANISED SURFACES - If galvanising has been exposed to exterior weathering for 6 months or more, remove zinc corrosion products by mechanical means (like power sander). Remove oil or grease with Amercoat 57 oil cleaner.

ALUMINIUM SURFACES - Remove oil and grease with Amercoat 57 oil cleaner. Lightly blast with fine abrasive or apply chromate-type conversion treatment, such as Alodine 1200, by Mavom B.V., Alphen a/d Rijn, Holland.

IMPORTANT - Apply primer as soon as possible after surface preparation to prevent any contamination. Do not leave blasted steel uncoated overnight. In case of contamination remove contaminants. Spot blast steel if needed.

Surface Preparation - Tiecoat

PRIMED STEEL - Prepare surface in accordance with application instructions for the specific primer being used. Ensure primer is clean, dry and free of oil, grease chalking and other contamination before applying Amercoat 71TC.

DIMETCOTE - Surface must be clean and dry. Remove any contamination. Refer to application instructions for the particular Dimetcote types for any other special topcoating requirements. Remove oil or grease with a neutral detergent or emulsion cleaner (like Amercoat 57 oil cleaner).

Application Equipment

The following equipment is listed as a guide and suitable equipment from other manufacturers may be used. Adjustments of pressure and change of tip size may be needed to obtain the proper spray characteristics.

AIRLESS SPRAY - Standard airless spray capable of producing a minimum pressure at the tip of 155 kg/cm² (2200 psi) having a fluid tip with a 0.38 to 0.53 mm (0.015 to 0.021 inch) orifice.

CONVENTIONAL SPRAY - Industrial equipment such as DeVilbiss MBC or JGA gun with 78 or 765 air cap and "E" fluid tip and heavy mastic spring or Binks No. 18 or 62 with a 66 x 63 PB nozzle setup. Separate air and fluid pressure regulators, mechanical pot agitator and a moisture and oil trap in the main air supply line are recommended.

BRUSH/ROLLER - Apply evenly using a clean well-loaded brush or roller. Typically 40-50 microns (1.6-2 mils) dft can be achieved in one coat.

MIXER - Use a power mixer powered by an air motor or an explosion proof electric motor.

Application Data

Substrate	blasted steel, primed steel, aluminium and Dimetcote	
Application methods	airless or conventional spray, brush or roller	
Environmental Conditions (during application)		
Air temperature	5 - 50°C	41 - 122°F
Surface temperature	5 - 60°C	41- 140°F

To prevent moisture condensation during application, surface temperature must be at least 3°C/5°F above the dew point. Minimum temperature for optimum cure is 10°C/50°F. Never apply coatings under adverse environmental conditions. Ensure good ventilation when applied in confined areas to assist evaporation and elimination of solvents.

Potlife (at 21°C/70°F) 4 hours

Potlife and drying time are dependent on temperature and quantities mixed.

Drying Times

(in hours at 50 µm 21°C (70°F))

	10/50	21/70	32/90	40/104
Dry touch	4	2	1	½
Dry hard	8	4	2	1

Recoat / Topcoat times

	10/50	21/70	32/90	40/104
Minimum (hours)	8	4	2	1
Maximum*	(Amercoat epoxies and polyurethane)			
Maximum (ABC3&4, alkyds)	14 days	10 days	7 days	3 days

Drying and curing times are dependent on air and steel temperature, applied film thickness, ventilation and other environmental conditions. Times are proportionally shorter at higher temperature and longer at lower temperatures.

Thinner Amercoat 9HF

Cleaner Amercoat 12

* Amercoat 71TC has an extended maximum overcoating time. Surfaces to be overcoated must be clean and dry. Any contamination must be identified and adequately removed. Particular attention must be paid to surfaces that have been exposed to heat and/or sunlight and where chalking may be present. A degree of surface cleaning will be required. Your PPG representative can advise on suitable cleaning methods



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Application Procedure

Amercoat 71TC is packaged in the proper mixing proportions of resin and cure.

Resin: 16 l in 20 l can (4 gal in 5 gal can)

Cure: 4 l in 5 l can (1 gal in 1 gal can)

1. Flush equipment with recommended cleaner.
2. Stir resin (in the larger container) to an even consistency with a power mixer.
3. Add cure to resin and continue stirring for 5 minutes.
NOTE: Since the potlife is limited and shortened by high temperatures, do not mix more material than will be used in 8 hours at 18-27°C (64 - 81°F) or 4 to 6 hours at 27-35°C 81- 95°F).
4. For conventional spray, thin only as needed for workability with no more than approximately 10 vol % of recommended thinner. Thinning is normally not needed for airless spray.
5. Stir during application to maintain uniformity of material. Apply a wet coat even, parallel passes. Overlap each pass 50% to avoid bare areas, pinholes or holidays.
6. Double coat all welds, rough spots, sharp edges and corners, rivets, bolts, etc.
7. Application at 100 µm (4 mils) wet film thickness will normally provide 50 µm (2 mils) dry film.
8. Check thickness of dry coating with a non destructive dry film thickness gauge, such as a Mikrotest or Elcometer. If less than specified thickness, apply additional materials as needed.
9. Small damages or bare areas and random pinholes or holidays can be touched up by brush. Repair larger areas by spray.
10. In confined areas ventilate with clean air during application and drying until all solvents are removed. Temperature and humidity of ventilating air must be such that moisture condensation will not form on surface.
11. Clean all equipment with recommended cleaner immediately after use or at least at the end of each working day or shift. When left in spray equipment, Amercoat 71TC will cure and cause clogging.

Shipping Data

Packaging
resin 16 l in 20 l can / 4 gal in 5 gal can
cure 4 l in 5 l can / 1 gal in 1 gal can

Shipping weight
resin approx. 30 kg / 65 lbs
cure approx. 4.6 kg / 10 lbs

Shelf life 1 year from shipment date 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 Product Data/Application Instruction and Material Safety Data Sheet must be observed during all storage, handling, use and drying periods.

Warranty

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

PPG 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 PPG be liable for consequential or incidental damages.

Any recommendations or suggestion relating to the use of the products made by PPG, whether in its technical literature, or response to specific enquiry, or otherwise, is based on data believed to be reliable; however, the products and information are intended for use by Buyer's having requisite skill and know-how in the industry, and therefore it is Buyer to satisfy itself of the suitability of the products for its own particular use and it shall be deemed that Buyer has done so, as its sole discretion and risk. Variation in environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results.

Limitation of Liability

PPG's liability on any claim of any kind, including claims based upon PPG's negligence or strict liability, for any loss or damage arising out of, connected with, or resulting from the use of the products, shall in no case exceed the purchase price allocable to the products or part thereof which give rise to the claim. In no event shall PPG be liable for consequential or incidental damages.

Due to PPG'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 PPG Protective & Marine Coatings website at www.ppgpmc.com

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.

