AMERCOAT®

Protective Coatings

Amercoat 56E
Polyamide Epoxy

Product Data/ Application Instructions

- **High solids tanklining**
- **Qualifies to Mil-C-4556 E for fuel storage**
- **Excellent resistance to refined petroleum products and fuels**
- **Suitable for water immersion service**

Typical Uses
Amercoat 56E polyamide epoxy is used in marine and industry as a protective lining for fuel and water tanks in ships, for ballast water tanks and for storage tanks of fuel oils and petroleum products, etc. Amercoat 56E polyamide epoxy coating system consists of two coats; the first coat ivory, the second coat white.

Approval and Certificates
Complies with MIL-C-4556E specification from the US Navy for the storage of jet fuels.
Complies with the Shell test requirements for linings for aviation fuels (tested by TNO, the Netherlands).

Repair
Spot blast areas to Sa 2½, feathering edges of intact coating. Thoroughly remove dust or abrasive residue before touch up.

Physical Data

Finish	flat
Colour	1st coat ivory 2nd coat white
Components	2
Mixing ratio (by volume)	
resin	4 parts
cure	1 part
Curing mechanism	solvent release and chemical reaction between components
Volume solids	71% (ISO 3233)*
VOC**	
EC SED 1999/13/EC	230 g/kg (327 g/l)
UK PG6/23(92) Appendix 3	290 g/l (x lbs/gal)
Dry film thickness	75-150 µm per coat
Number of coats	2 coats of 100 µm for fuel storage 2 coats at 150 µm as water tanklining
Calculated coverage	9.5 m²/l at 75 µm 4.7 m²/l at 150 µm

Allow for application losses, surface irregularities, etc.

Flash points (Closed Cup)	°C	°F
resin	25	77
cure	24	75
Amercoat 9HF	26	79
Amercoat 65	24	75
Amercoat 12	24	75

* volume solids is measured in accordance with ISO 3233. 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
STEEL - Immersion service: Blast steel to Sa 3 in accordance with Swedish Standard SIS 05 5900 - 1967, ISO 8501-1 or SSPC SP-5.
NOTE: Blast to achieve a surface profile not to exceed
75 µm as determined with *Testex* Tape or similar instrument. Remove abrasive residues and dust from surface.
IMPORTANT - Apply Amercoat 56E 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.

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 equipment, such as Graco, DeVilbiss, Nordson-Bede, Spee-Flo or others having a 0.015 to 0.021 inch (0.38 to 0.53 mm) fluid tip.
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.
MIXER - Use power mixer powered by an air motor or an explosion proof electric motor.

Application Data Summary
Like all high performance coatings, Amercoat 56E must be applied as recommended to obtain the maximum protection for which this coating is formulated. To obtain the maximum performance for which Amercoat 56E is formulated, strict adherence to all application instructions, precautions, conditions and limitations is necessary. If conditions exist that are not within the requirements or limitations described, consult your PPG representative.

Application Data

Substrate	steel		
Application methods	airless or conventional spray		
Potlife at °C/°F	30/86	20/68	10/50
(in hours)	1½	4	6

Potlife is dependent on temperature and quantities mixed.

Environmental Conditions (during application)		
Air temperature	5 to 50°C	41 to 122°F
Surface temperature	5 to 60°C	41 to 140ºF

To prevent moisture condensation during application, surface temperature must be at least 3°C/5ºF above dew point.

Drying Times (ASTM D1640) at 100µm dft (in hours) °C/°F	30/86	20/68	10/50
dry to touch	1	2	3
dry through	8	12	18
dry to recoat or topcoat (minimum)	8	12	18

Maximum Topcoat or Self-recoat Times (in months) °C/°F	30/86	20/68	10/50
immersion	6	6	6

Time before service at 150 µm (in days) °C/°F	30/86	20/68	10/50
immersion	3	6	10

NOTE: 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 65 / Amercoat 9HF

Cleaner ..... Amercoat 12

Amercoat 56E

Application Procedure

Amercoat 56E is packaged in the proper mixing proportions of resin and cure.

resin:	16 l in 20 l can
cure:	4 l in 5 l can

1. Flush equipment with Amercoat 12 before use.
2. Stir resin (in the larger container) to an even consistency with a power mixer.
3. Add cure to resin solution, 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 4 hours at 20°C/68°F.
4. Thin only if necessary for workability, add up to 10 vol. % of thinner.
5. Apply a wet coat even, parallel passes. Overlap each pass 50% to avoid bare areas, pinholes or holidays. When applying directly over inorganic zincs at full thickness, bubbling may occur. A test patch is recommended and if bubbling occurs, apply a "mist coat". Consult your PPG representative for further information.
6. Double coat all welds, rough spots, sharp edges and corners, rivets, bolts, etc.
7. Application at 217 µm wet film thickness will normally provide 150 µm dry film.
8. 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.
9. Small damaged 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.

For conventional spray, use adequate air pressure and volume to ensure proper atomization.

Normal recommended dry film thickness is 75 to 150 µm. However, if greater thickness is applied in local areas because of overlapping, no runs or sags will normally occur at a dry film thickness up to 200 µm. Total dry film thickness must not exceed 400 µm.

11. Clean all equipment with Amercoat 12 immediately after use or at least after each working day or shift. When left in spray equipment, Amercoat 56E will cure and cause clogging.

Shipping Data

Packaging

resin	16 l in 20 l can
cure	4 l in 5 l can

Shipping weight

resin	approx. 25 kg
cure	approx. 7 kg

Shelf life ..... 1 year from shipment date when stored indoors in unopened, original containers at 5 to 40°C (41 to 104°F)

Caution
This product is flammable. Keep away from heat and open flame. Keep container closed. Use with adequate ventilation. Avoid prolonged and repeated contact with skin. If used in confined areas, observe the following precautions to prevent hazards of fire or explosion or damage to health:

1. circulate adequate fresh air continuously during application and drying;
2. use fresh air masks and explosion proof equipment;
3. prohibit all flames, sparks, welding and smoking.

Do not empty into drains. Take precautionary measures against static discharges. For specific information on hazardous ingredients, required ventilation, possible consequences of contact and safety measures see Safety Data Sheet.

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.

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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.