AMERCOAT®

Protective Coatings

Amercoat 253

Chemical Resistant Lining

Product Data/ Application Instructions

- **High Solids, high performance epoxy novolac also defined as phenolic epoxy tanklining**
- **Exceptional resistance to a broad range of chemicals, solvents and fuels**
- **Two or three coat system**

Outstanding Characteristics

Amercoat 253 Chemical Lining provides excellent protection to prepared steel and concrete exposed to splash, spillage and fumes of corrosive chemical and weather environments. As a tank lining, it requires two coats without a primer to protect surfaces exposed to immersion.

Typical Uses

As a lining in ship tanks, railroad cars, road tankers and fixed storage tanks. Also suitable for steel surfaces exposed to immersion, splash or spray of demineralized, fresh or sea water. As a general purpose tank lining Amercoat 253 Chemical Lining is suitable for exposure to a wide range of solvents, fuels, petroleum products, non-acidic aqueous products and caustics.

Resistance Guide

See Amercoat 253 Chemical Lining Chemical Resistance List.

Application Data Summary

Like all high performance coatings, Amercoat 253 Chemical Lining must be applied as recommended to obtain the maximum protection for which this coating is formulated.

Physical Data

Finish	semi-gloss
Colours	grey, white, pastel red
Components	2
Mixing ratio (by volume)	
resin	4 parts
cure	1 part
Curing mechanism	solvent release and chemical reaction between components
Volume solids	72% (ISO 3233)
VOC*	
EC SED 1999/13/EC	209 g/kg (278 g/l)
UK PG6/23(92) Appendix 3	210 g/l (1.8 lbs/gal)
Dry film thickness	100 or 150 µm (4 - 6 mils) per coat
Number of coats	2 or 3**
Calculated coverage	7.0 m^2/l at 100 µm 4.7 m^2/l at 150 µm

Allow for application losses, surface irregularities, etc.

Induction time (at 20°C/68°F)	15 minutes
Specific gravity	1.39 kg/l (mixed product)

Flash points (Closed Cup)	°C	°F
resin	28	82
cure	28	82
Amercoat T-10	25	77

Thinner/cleaner ..... Amercoat T-10

* 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.

** Coating Systems
2 coat system: 2 coats of 150 µm including 2 stripe coats;
3 coat system: 3 coats of 100 µm including 2 stripe coats;

maximum total dry film thickness is 450 µm

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Surface Preparation
STEEL - Blast to Sa 2½ (ISO 8501-1) or SSPC SP-10. NOTE: blast to achieve minimum 40 µm and maximum 75 µm profile, as determined with Testex Tape or similar device. Remove abrasive residues and dust from surface.
IMPORTANT - Apply Amercoat 253 Chemical Lining 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 28:1 or higher pump ratio and a fluid tip with a 0.53 mm (0.021 inch) orifice or larger.
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 and a mechanical pot agitator are recommended. A moisture and oil trap in the main air supply line is essential.
MIXER - Use power mixer powered by an air motor or an explosion proof electric motor.

Repair
Spot blast or power tool clean bare substrate to the requirements shown under surface preparation. Feather edges of intact coating. Remove dust, dirt and contamination before recoating. See additional repair procedure.

Application Data

Substrate ..... abrasive blasted steel

Application methods ..... by airless or conventional spray

Potlife (at 20°C/68°F) ..... 4 hours

Potlife is dependent on temperature and quantities mixed.

Environmental Conditions (during application and drying)

Air temperature	10 to 43°C	50 - 109°F
Surface temperature	10 to 50°C	50 - 122°F
Coating temperature	10 to 40°C	50 - 104°F

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

Never apply coatings under adverse environmental conditions. Ensure good ventilation when applied in confined areas to assist evaporation and elimination of solvents.

Drying Times, °C/°F	10/50	20/68	30/86
dry through (hours).....	36	22	12
dry to load (days)	14	7	4

Recoat Times, °C/°F	15/59	20/68	25/77	30/86
minimum (hours)	24	16	10	7
maximum (days).....	6	4	4	1

NOTE: drying and recoat 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. Prior to recoating ensure the surface is clean.

Thinner/cleaner ..... Amercoat T-10

Amercoat 253

Application Procedure

Amercoat 253 Chemical Lining 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 recommended thinner before use.
2. Stir each of the components prior to mixing 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 within the potlife period (4 hours at 20°C/68°F and 2 hours at 30°C/86°F). Allow 15 minutes induction time.
4. For conventional spray, thin only as needed for workability with no more than 10% by volume of Amercoat T-10. Thinning is normally not needed for airless spray.
5. Stir during application to maintain uniformity of material. Apply a wet coat by 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 215 µm (8.6 mils) wet film thickness will normally provide 150 µm (6 mils) dry film. Total dry thickness must not exceed 450 µm (18 mils) and not be less than 250 µm (10 mils) in 2 coats.
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. When a pinhole free coating is required, check continuity of dry but uncured coating with a non destructive holiday detector such as Tinker-Rasor, model M1. Apply additional coats to areas requiring touch up.
11. 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.
12. 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 253 Chemical Lining will cure and cause clogging.

Shipping Data

Packaging	
resin	16 l (4.2 gal) in a 20 l can
cure	4 l (1.06 gal) in a 5 l can
Shipping weight	
resin	approx. 24 kg
cure	approx. 6 kg
Shelf life	1 year from shipment date when stored indoors in unopened, original containers at 5 to 40°C (41 - 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, exposure 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.