



Amercoat 78 HBB

Coaltar Epoxy

Product Data/ Application Instructions

- Up to 400 µm of protection in only one coat, eliminating intercoat adhesion problems of two-coat coaltar epoxies
- Low temperature curing
- One-coat application significantly reduces labour costs
- Superior application by airless and conventional spray
- For tanklining, immersion or non-immersion service
- Suitable for waste treatment plant service

Typical Uses

Marine structures, piling, bilges, ballast tanks, crude oil and cargo/ballast tanks, ships bottoms; pipe coating and lining; industrial coating in power plants, oil production and refining plants, sewage treatment plants. Lining for immersion in crude oil, salt solutions, and fresh or brackish water or seawater.

Outstanding Characteristics

Amercoat 78HBB is a coaltar epoxy which displays exceptional application versatility, for use varying from cold to hot climates. It can be easily applied in one coat at a thickness of 400 µm or more. Alternatively, two coats at 200 µm or three at 125 µm may be applied, if required by specification. These features, combined with its high solids content and broad spectrum of water and chemical resistance, provide in Amercoat 78HBB a durable, high performance and economical coating. Amercoat 78HBB is suitable for use over both steel and concrete

Systems using Amercoat 78HBB

Amercoat 78HBB normally does not require a primer or any additional topcoats. In the event that a holding primer is required, Amercoat 71 may be used. If an inorganic zinc silicate is required as primer, Amercoat 71 has to be applied on the Dimetecote to serve as a tiecoat between primer and topcoat. (For both immersion and non-immersion services).

Physical Data

Finish	low sheen
Colour	black, darkbrown
Components	2
Mixing ration (by volume)	
resin	4 parts
cure	1 part
Curing mechanism.....	solvent release and chemical reaction between components
Volume solids	77% (ASTM D2697, modified)*
VOC**	
EC SED 1999/13/EC	223 g/kg (330 g/l)
UK PG6/23(92) Appendix 3.....	330 g/l
Dry film thickness.....	400 µm per coat
Number of coats	1
Calculated coverage	1.93 m ² /l at 400 µm
Allow for application losses, surface irregularities, etc.	
Specific gravity	1.49 kg/l
Flash points (Closed Cup) .	°C °F
resin.....	27 81
cure	24 75
Amercoat 65	24 75

* Volume solids is measured in accordance with ASTM D2697 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

STEEL - Welds should be continuous with no skipwelds on overlapping steel surfaces. Blast in accordance with Swedish Standard Sa 2½ SIS 05 5900 - 1967, ISO 8501-1 or Steel Structures Painting Council SP-10. NOTE: Blast to achieve a 50 to 100 µm profile, as determined with Testex Tape or similar instrument. Remove abrasive residues and dust from surface.

CONCRETE - Light abrasive blasting is best to remove all previous coatings, chalk and surface glaze or laitance. After blasting, small holes or voids in cast concrete wall or overhead surface should be filled with a suitable material such as Nu-Klad 114A epoxy filler compound before applying Amercoat 78HBB.

DIMETCOTE - Amercoat 71(TC) must be used as a tiecoat over Dimetcote prior to application of Amercoat 78HBB. AMERCOAT 71(TC) - Surfaces coated with Amercoat 71(TC) must be dry and free of all contamination. Refer to application instructions of Amercoat 71(TC) for drying time and curing time limitations.

IMPORTANT - Apply Amercoat 78HBB 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. **AIR-LESS SPRAY** - Standard airless spray equipment, such as Graco, DeVilbiss, Nordson-Bede, Spee-Flo or others having a fluid tip with a 0.46 to 0.69 mm (0.018 to 0.027 inch) orifice. **CONVENTIONAL SPRAY** - Industrial equipment such as DeVilbiss MBC or JGA or Binks No. 18 or 62 gun. 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.

Application Data Summary

Amercoat 78HBB is an amine cured, high build, coaltar epoxy coating for non-immersion as well as immersion service, providing excellent corrosion and chemical resistance and full film thickness in only one coat. If conditions exist that are not within the requirements or limitations described, consult your OAL representative.

Application Data

Substrate steel or concrete
Application methods airless or conventional spray

Environmental Conditions

(during application)

Air temperature 0 to 50°C 32 to 122°F
Surface temperature..... 0 to 60°C 32 to 140°F
Material temperature..... 10 to 40°C 52 to 104°F

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

Recoat and Repair Schedule

When two coats are specified for repair of damaged, imperfect or thin areas, additional Amercoat 78HBB should be applied within the following drying times to ensure proper adhesion:

Surface temperature(°C/°F) .. 7/45	15/59	21/70	30/86
Maximum drying time (hours) 72	48	32	16

NOTE: do not allow more than six hours of total sunlight exposure before applying repair coat and protect against rain, moisture, or condensation, otherwise intercoat adhesion may be impaired. If the maximum drying time has been exceeded, the surface must be roughened by brush blasting before applying repair coat.

Curing Time

The indicated drying and curing times are for a dry film thickness of 400 µm. If the thickness is greater allow additional curing time. In all cases higher temperatures will shorten and lower temperatures will lengthen the curing times.

dry to handle (°C/°F)..... 7/45	15/59	21/70	30/86
(hours) 36	24	16	8

For most exterior atmospheric exposures, the coating may be placed in service as soon as it has dried sufficiently to withstand handling.

For immersion in water, where early abrasion resistance is not required such as ships, ballast tanks or bilges, the required curing times are as follows:

°C/°F 7/45	15/59	21/70	30/86
9 days	3 days	26 hours	18 hours

Where the maximum chemical or abrasion resistance is required or for critical applications such as circulating waterlines, the coating must be fully cured according the following schedule:

10-13°C	18-24°C	32-38°C
50-55°F	64-75°F	90-100°F
20 days	10 days	6 days

Potlife (at 21°C/70°F)..... 4 hours

Thinner/cleanerAmercoat 65

Amercoat 78 HBB

Application Procedure

Amercoat 78HBB 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 65 before use.
2. Stir resin 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 4 hours at 21°C/70°F or 2 hours at 30°C/86°F.
4. For conventional spray, thin only as needed for workability with no more than 10% of thinner Amercoat 65. Thinning is normally not needed for airless spray.
5. Stir during application to maintain uniformity of material. Apply a heavy wet coat in even, parallel passes with 50% overlap. Immediately follow with additional cross-spray passes to obtain a continuous film without bare spots, pinholes or holidays.
6. Double coat all welds, corners, sharp edges, rivets and bolts, rough spots, etc.
7. Application at 524 µm wet film thickness will normally provide 400 µm dry film.
8. Check thickness of dry and cured coating with a non-destructive dry film thickness gauge, such as Mikrotest or Elcometer. If less than specified thickness, apply additional material as needed. Allowable thickness range is 125 to 500 µm depending upon service conditions.
9. When a pinhole-free coating is required, check continuity of dry but uncured coating with a high voltage holiday detector. Voltage setting on the equipment should not exceed a level of 3 Volts per µm of coating thickness, e.g. 1200 Volts for 400 µm dft of the coating.
10. Apply additional material needed for correction of film thickness and repair of pinholes or damaged areas within the times shown in Recoat and Repair Schedule. The surface must be clean when repair coat is applied.
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 Amercoat 65 immediately after use or at least at the end of each working day or shift. When left in spray equipment, Amercoat 78HBB 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. 34.6 kg
cure approx. 5.3 kg

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

Amercoat 78 HBB

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

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

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Due to OAL'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 OAL.

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.

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