



Amercoat 450S

Gloss aliphatic polyurethane topcoat

(450 Series)

Product Data/ Application Instructions

- High gloss topcoat
- Outstanding weather resistance with excellent colour and gloss retention
- Resistant to a broad range of corrosive and marine atmospheres
- Resists soil pick up - easily cleanable
- Hard, tough, flexible, and abrasion resistant
- Cures through a wide temperature range
- Easily recoated with itself

Typical Uses

Amercoat 450 S can be used as a finish coat where attractive appearance and a wide range of corrosive resistance is required.

- Chemical plants
- Pulp and paper mills
- Off shore platforms
- Petroleum refineries and containers

Systems Using Amercoat 450S

First coat	Intermediate	Finish coat
Dimetcote	Amercoat 182ZP HB or Amercoat 385	Amercoat 450 Series
Amercoat 68 Series	Amercoat 182ZP HB or Amercoat 385	Amercoat 450 Series
Amercoat 71 or Amercoat 182ZP HB		Amercoat 450 Series
Amercoat 385 S		Amercoat 450 Series
Amerlock Series		Amercoat 450 Series

Maximum curing time at 70°F (21°C) for high solids epoxy coatings varies when overcoating with Amercoat 450 S: A400, A385, A370, – 4 weeks; A2 or A400 plus 861 – 1 week.

Physical Data

Finish	High gloss	
Colour.....	RAL and BS colours*	
Components	2	
Mixing ratio (volume).....	4 resin to 1 cure	
Curing mechanism	solvent evaporation and reaction between components	
Volume solids	58% (ISO 3233)**	
VOC.....	28% by weight	
	386 g/l	3.2 lb/gal
Dry film thickness	35-50 microns	
	1.5-2 mils	
Number of coats	1***	
Theoretical coverage.....	m ² /L	ft ² /gal
at 30 microns /1.5 mil dft.....	16.6	664
at 50 microns /2.0 mil dft.....	11.6	464
Temperature resistance	°C	°F
Continuous.....	93	200
Intermittent.....	120	250
Flashpoints	°C	°F
Cure	24	75
Resin.....	40	104
Mixed	24	75
Amercoat 920	24	75
Amercoat 12	24	75
Thinners	Amercoat 920	
Cleaner.....	Amercoat 12	

* On tanks and other large structures previously coated with contrasting primer or intermediate coats, uniform appearance may require two coats of Amercoat 450S. Use only a light colour primer or intermediate coat when only one finish coat of Amercoat 450S in a light colour is specified.

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

*** Brush or roller application may require additional coats.

Amercoat 450S

Application Procedure

Amercoat 450S is packaged in the proper mixing proportions of resin and cure which must be mixed together before use.

1. Flush equipment with recommended cleaner before use.
2. Stir both resin and cure to a uniform 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 at the specified temperature.
4. For spray application, thin only as needed for workability with no more than 10 vol % of recommended thinner. For application at temperatures below 10°C/50°F, more thinner may be required to ensure proper atomising.
NOTE: For brushing and rolling, normally no thinning is required.
5. Apply a wet coat in 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 86 µm (3.4 mil) wet film thickness will normally provide 50 µm (2 mil) 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.
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 450S will cure and cause clogging.

Repair

For repair, or application of additional thickness, Amercoat 450S may be over coated with itself unlimited. Ensure surface is clean prior to application.

Shipping data

Packaging

Resin	16 L in 20 L can
Cure	4 L in 5 L can

Shipping weight

	kg	lb
Resin	approx. 25	55
Cure	approx. 5	11

Shelf life

Resin and cure	1 year from shipment date when stored indoors in unopened, original containers at 5 to 40°C (41 to 104°F)
----------------------	---

Amercoat 450S

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 the 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 application instructions must be observed during all storage, handling, use and drying periods.

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.

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-confirming 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.

Any recommendations or suggestion relating to the use of the products made by Ameron, 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

Ameron's liability on any claim of any kind, including claims based upon Ameron'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 Ameron be liable for consequential or incidental damages.

Condition of Sale

All our transactions are subject to our Terms and Conditions of Sale.