



Performance Coatings & Finishes

Amercoat® 434

Moisture cured aliphatic polyurethane topcoat with MIO

Product Data/ Application Instructions

- Single-component topcoat
- Tolerant of damp, cold, humid, or foggy application conditions
- Cures down to 20°F
- Excellent weathering and chemical resistance

Typical Uses

Amercoat 434 is a moisture cured aliphatic polyurethane topcoat. Amercoat 434 was designed for use as a finish coat in a multi-coat moisture cured polyurethane coating system for the protection and maintenance of:

- Steel structures in the chemical and petrochemical industry, power plants, tank farms, waste treatment plants;
- Bridges and related structures

Systems Using Amercoat 434

Amercoat 434 is normally applied as a finish coat where attractive appearance and corrosion and weathering resistance are required.

Primer	Intermediate Coat	Finish Coat
Amercoat 430 or 431	Amercoat 433	Amercoat 434
Amercoat 432 or 433	Amercoat 433	Amercoat 434

Surface Preparation

Coating performance, in general, is proportional to the degree of surface preparation. Refer to application instructions for specific primers and intermediate coats being used for application and curing procedures. All previous coats must be clean and free of all contaminants, including salt deposits. Amercoat 434 can be applied on damp substrates at high humidities. Do not apply over wet surfaces or puddles of water.

Physical Data

Finish	Low gloss	
Color	Sage green, green, brown/gray	
Components	1	
Volume solids (calculated)	62% ± 2%	
Dry film thickness per coat	2-3 mils (50-75 microns)	
Coats	1	
Theoretical coverage	ft ² /gal	m ² /L
3 mil (75 microns)	331	8.2
VOC	lb/gal	g/L
unthinned	2.8	340
thinned (¼ pt/gal)	3.2	383
Temperature resistance	°F	°C
continuous	200	93
intermittent	250	121
Flash point (SETA)	°F	°C
Amercoat 434	75	24
Amercoat 915	75	24
Amercoat 65	78	25
Amercoat 101	145	63
Amercoat 12	2	-17

Application Data

Applied over	Primed steel	
Surface preparation	See specific primer or intermediate	
Method	Airless or conventional spray, brush or roller	
Environmental conditions		
Temperature	°F	°C
air	20 to 120	-7 to 50
surface	20 to 120	-7 to 50
Relative humidity	40% minimum	
Drying time ASTM D1640 @ 50% RH(hours)		

	F/°C				
	90/32	70/21	50/10	30/-1	20/-7
touch	1	2	4	8	12
hard	4	6	12	16	24
recoat					
minimum (hours)	4	6	12	18	24
maximum (months)	2	2	2	2	2

Note: At relative humidities below 40%, drying will be retarded.

Roughen surface if maximum recoat time is exceeded

Thinner	Amercoat 65, 101, or 915
Equipment cleaner	Thinner or Amercoat 12

Numerical values are subject to normal manufacturing tolerances, color and testing variances. Allow for application losses and surface irregularities.

This product is photochemically reactive as defined by the South Coast Air Quality Management District's Rule 102 or equivalent regulations.

Application Equipment

The following equipment is listed as a guide and suitable equipment from other manufacturers may be used.

Adjustments of pressures 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, Speeflo, or others having a 30:1 or higher pump ratio and a spray tip with a 0.017- to 0.021-inch orifice.

Conventional spray – Industrial spray equipment such as DeVilbiss 510 gun with 704 air cap and a 0.55 to 0.73 fluid tip. Separate air and fluid pressure regulators, and moisture and oil trap in the main air supply line are recommended.

Brush – Natural bristle. Maintain a wet edge.

Roller – Industrial solvent-type. Level any air bubbles with a bristle brush. Short nap rollers (no greater than $\frac{3}{8}$ in.) will help minimize bubbling.

Application Procedure

1. Clean all equipment with Amercoat 12 or thinner.
2. If thinning is necessary for workability, thin with up to $\frac{3}{4}$ pt of Amercoat 65, 101, or 915 per 1 gal of Amercoat 434.
3. Spray on a wet coat, making even parallel passes overlapping each pass 50%. Follow with a 'cross spray' pass at right angles to first pass. Give special attention to angles, corners, rough spots, edges, etc. to avoid pinholes bare areas and holidays.
4. The application of a wet film thickness of 5 mils (125 microns) will normally provide 3 mils (75 microns) of dry film thickness. Avoid application of wet films in excess of 5 mils as bubbling may result.
5. Check dry film with non-destructive dry film thickness gauge, such as Elcometer or Mikrotest. If less than 3 mils (75 microns), add material to bring film thickness up to requirements.
6. To repair or touch up bare areas, pinholes or holidays, simply apply additional material.
7. In confined areas ventilate with clean air during application and drying until all solvents are removed.
8. Clean all equipment with thinner or Amercoat 12 immediately after use or at least after each working day or shift.

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.**

Shipping Data

Packaging units	1 gal	5 gal
Shipping weight (approx)	lb	kg
1-gal	14.5	6.6
5-gal unit	75.0	34.1

Shelf life when stored indoors at 40 to 85°F (4 to 29°C)
6 months from manufacture date

Safety Precautions

Read material safety data sheet before use. Safety precautions must be strictly followed during storage, handling and use.

CAUTION – Improper use and handling of this product can be hazardous to health and cause fire or explosion.

Do not use this product without first taking all appropriate safety measures to prevent property damage and injuries. These measures may include, without limitation: implementation of proper ventilation, use of proper lamps, wearing of proper protective clothing and masks, tenting and proper separation of application areas. Consult your supervisor. Proper ventilation and protective measures must be provided during application and drying to keep spray mists and vapor concentrations within safe limits and to protect against toxic hazards. Necessary safety equipment must be used and ventilation requirements carefully observed, especially in confined or enclosed spaces, such as tank interiors and buildings.

This product is to be used by those knowledgeable about proper application methods. Ameron makes no recommendation about the types of safety measures that may need to be adopted because these depend on application environment and space, of which Ameron is unaware and over which it has no control.

If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product.

Note: Consult Code of Federal Regulations Title 29, Labor, parts 1910 and 1915 concerning occupational safety and health standards and regulations, as well as any other applicable federal, state and local regulations on safe practices in coating operations.

This product is for industrial use only. Not for residential use.

Warranty

Ameron warrants its products to be free from defects in material and workmanship. Ameron's sole obligation and Buyer's exclusive remedy in connection with the products shall be limited, at Ameron's option, to either replacement of products not conforming to this Warranty or credit to Buyer's account in the invoiced amount of the nonconforming 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 nonconformance 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 for a particular purpose, shall apply. In no event shall Ameron be liable for consequential or incidental damages.

Any recommendation or suggestion relating to the use of the products made by Ameron, whether in its technical literature, or in response to specific inquiry, or otherwise, is based on data believed to be reliable; however, the products and information are intended for use by Buyers having requisite skill and know-how in the industry, and therefore it is for 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, at its sole discretion and risk. Variation in environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results.



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