



AMERON
INTERNATIONAL

Performance Coatings & Finishes

V40 Series

High gloss polyurethane topcoat

Product Data/ Application Instructions

- Very high gloss topcoat
- Outstanding weather resistance with good color and gloss retention
- Resistant to broad range of corrosive atmospheres
- Resists soil pickup – cleans easily
- Unlimited self recoatability

Typical Uses

V40 Series can be used as a finish coat where attractive appearance and weather resistance is required.

- Tank exteriors
- Chemical plants
- Pulp and paper mills
- Petroleum refineries and containers.

Systems Using V40

First Coat	Intermediate Coat	Finish Coat
Dimetcote®	370 or 385	V40
Amercoat 441	443	V40
Amercoat 370, 385, or Amerlock 400, 2		V40

Chemical Resistance Guide

When applied over suitable primer or intermediate coat:

Environment	Splash and Spillage	Fumes and Weather
Acidic	VG	E
Alkaline	VG	E
Solvents	G	E
Salt solutions		
Acidic	E	E
Neutral	E	E
Alkaline	E	E
Water	E	E
G-Good	VG-Very Good	E-Excellent

This table is only a guide. For specific recommendations, contact your Ameron representative for your particular corrosion protection needs. V40 Series is not recommended for immersion service.

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 dry. Aged epoxy coatings must be roughened before applying V40 Series.

Physical Data

Finish	High gloss
Color	See color card
<i>Yellow, red and orange colors will fade faster than other colors due to the replacement of lead-based pigments with lead-free pigments in these colors. Color variance with rapid response tinted colors may be greater than with standard production batches. When color is critical, intermix different batches or start application of different batches at natural breaks in structure.</i>	
Components	2
Curing mechanism	Solvent release and chemical reaction between components
Volume solids (ASTM D2697 modified)	61% ± 3%
Dry film thickness per coat	2-3 mils (50-75 microns)
Coats	1-2

Certain colors (especially yellow, red, and orange) may require additional coats to achieve adequate hiding, particularly when applied over dark or contrasting primer color.

Theoretical coverage	ft ² /gal	m ² /L
1 mil (25 microns)	978	24
VOC (calculated)	lbs/gal	g/L
mixed	3.1	372
mixed, thinned 10%	3.5	420
Temperature resistance (Dry)	°F	°C
continuous	200	93
intermittent	250	120
Flash point (SETA)	°F	°C
resin	80	27
cure	117	47
Amercoat 923	102	39
Amercoat 12	2	-17

Formerly VyGuard V40 Series

Application Equipment

The following is a guide; suitable equipment from other manufacturers may be used. Changes in pressure and tip size may be needed for proper spray characteristics.

Airless spray—Standard equipment such as Graco, DeVilbiss, Binks, Speedflo, or others having a 28:1 or higher pump ratio and a fluid tip with 0.013- to 0.017-inch (0.33- to 0.43-mm) orifice.

Conventional spray—Industrial equipment such as DeVilbiss MBC or Binks BBR spray gun. Separate air and fluid pressure regulators, mechanical pot agitator and a moisture and oil trap in main air supply line are recommended.

Application Data

Applied over	Primed concrete or steel	
Surface preparation	See specific primer or intermediate	
Method	Airless, conventional spray, brush, or roller	

Environmental conditions

Temperature	°F	°C
air and surface	35 to 120	2 to 49

Surface temperature must be at least 5°F (3°C) above dew point to prevent condensation.

Mixing ratio (by volume) 5 parts resin to 1 part cure

°F/°C

75/24

Pot life (hours) 3

Drying time (ASTM D1640) (hours) °F/°C

70/21

touch 2½

recoat (min) 24

recoat (max) none

Thinner	Amercoat 923
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. See application instructions for complete information and safety precautions.

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

Application Procedure

Adhere to all instructions, precautions, conditions and limitations during storage, handling, application and drying periods to obtain maximum performance. For conditions outside the requirements or limitations described, contact your Ameron representative.

V40 Series is packaged in two components in the proper proportions which must be mixed together before use:

1. Flush equipment with thinner or Amercoat 12 before use.
2. Stir each component thoroughly, then add cure to resin and mix until uniformly blended to a workable consistency. Do not mix more material than will be used within 3 hours at 65-80°F (18-27°C). Pot life is shortened by higher temperatures.
3. Thin only if necessary for workability.
4. When applying by conventional spray, use adequate air pressure and volume to ensure proper atomization.
5. Apply a wet coat in even parallel passes, overlap 50 percent to avoid holidays, bare areas and pinholes. If required, cross spray at right angles.
6. Application of 3 to 5 mils (75 to 125 microns) wet film thickness will normally provide 2-3 mils (50-75 microns) dry film.
7. Clean all equipment with thinner or Amercoat 12 immediately after use.
8. Keep containers tightly closed since repeated exposure to moisture will cause gelation. Moisture contaminated material is also subject to gassing on storage. Handle bulged containers with caution; lids may eject forcibly.

Shipping Data

Packaging units	1 gal	5-gal
cure	0.17 gal in 1-qt can	0.83 gal in 1-gal can
resin	0.83 gal in 1-gal can	4.17 gal in 5-gal can
Shipping weight (approx)	lb	kg
1-gal unit		
cure	2	0.9
resin	10.1	4.6
5-gal unit		
cure	8.9	4
resin	49.9	22.7
Shelf life when stored indoors at 40 to 100°F (4 to 38°C)		
resin and cure	1 year from shipment date	

Safety Precautions

Read each component's material safety data sheet before use. Mixed material has hazards of both components; gives off harmful vapor of solvents and isocyanates. Use only with adequate ventilation. A positive pressure air-supplied respirator (TC19C NIOSH/MSHA) is recommended. Follow directions for respirator use. Wear respirator for the entire time of mixing, spraying and until all vapors and mists are gone. 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.

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