



**AMERON**  
INTERNATIONAL

Performance Coatings & Finishes

# Amercoat® 90HS

## Epoxy-phenolic tank linings

### Product Data

- Low VOC
- Tank lining
- Economical potable water tank lining; requires only 2 coats
- Withstands continuous immersion in water up to 140°F (60°C)
- Recommended for use under insulation up to 400°F (204°C)

### Typical Uses

Amercoat 90HS provides excellent protection to prepared steel and concrete exposed to splash, spillage and fumes of corrosive chemical and weather environments. Amercoat 90HS is used as a tank lining for ship tanks, roadtankers, barges, railroad cars and storage tanks in the chemical and petrochemical industries.

Amercoat 90HS has excellent resistance to continuous and alternating service for a wide range of chemicals, solvents, caustic, crude and fuel oils, as well as, neutral, alkaline and nonoxidizing salt solutions in water. It may be cleaned between cargoes with hot cleaning, up to a butterworth temperature of 176°F (80°C).

### Chemical Resistance

For a comprehensive listing of chemical resistance see the latest Amercoat 90HS Chemical Resistance List.

### Qualifications

1. **NSF Standard 61\*** – For use in drinking water (CLD 23); Amercoat 90HS

- Colors: white, ivory and RT-1805 blue
- 2 - 4 coats to a maximum of 25 mils (625 microns) DFT is NSF qualified
- Sequence of Coats: Any combination of listed colors
- Maximum Thinner: 12.5% Amercoat #65 by volume
- Recoat/Cure Time: 8 hours / 5 days
- Tanks 1000 gallons or greater
- Pipes 5½ inches in diameter or greater
- Valves 5½ inches in diameter or greater

\*Certain restrictions do apply.

2. **MIL-P-23236B(SH) Type IV**



### Physical Data

Finish	Flat	
Color**	White, ivory, RT-1805 blue	
Components	2	
Curing mechanism	Solvent release and chemical reaction between components	
Volume solids (calculated)	64% ± 3%	
Dry film thickness per coat	4-6 mils (100-150 microns)	
Coats	2 or 3	
Total minimum DFT		
water tanks	8-10 mils (250 microns)	
chemical tanks	8-12 mils (300 microns)	
refined petroleum	8-10 mils (200 microns)	
ships tanks	12 mils (300 microns)	
under insulation	12 mils (300 microns)	
suppression chambers	10 mils (250 microns)	
factory-applied and baked lining	8 mils (200 microns)	
Theoretical coverage	ft <sup>2</sup> /gal	m <sup>2</sup> /L
1 mil (25 microns)	1027	25.2
4 mils (100 microns)	257	6.3
VOC	lb/gal	g/L
mixed	2.7	323
mixed/thinned (1pt/gal)	3.3	395
Temperature resistance	°F	°C
Immersion	140	60
Non-immersion	250	121
Under insulation	400	204
Flash point (SETA)	°F	°C
cure	83	28
resin	96	39
Amercoat 65	78	25
Amercoat 101	145	63
Amercoat 12	2	-17

### Application Data

Applied over	Prepared steel, concrete, aluminum, galvanizing or Dimetcote®		
Surface preparation			
steel	SSPC-SP5(Sa 3) or 10(Sa 2½)		
concrete	ASTM D4259 or 4260		
aluminum	Alodine® or light abrasive blast		
galvanizing	Galvaprep® or light abrasive blast		
Dimetcote	See specific Dimetcote		
Method	Airless or conventional spray		
Mixing ratio (by volume)	4 parts resin to 1 part cure		
Pot life (hours)	90/30	70/21	°F/°C
	2	4	50/10
			6
Environmental conditions			
Temperature	°F	°C	
air	50 to 100	10 to 38	
surface	50 to 120	10 to 49	
Surface temperatures must be at least 5°F (3°C) above dew point to prevent condensation.			

\*\* Use pearl gray, white or ivory for chemical tank lining.

## Application Data Summary

See Application Instructions for complete information on surface preparation, environmental conditions, application procedures and equipment. To obtain maximum performance, apply as recommended. Adhere to all safety precautions during storage, handling, application and drying periods.

## Surface Preparation

Coating performance is, in general, proportional to the degree of surface preparation. All surfaces must be clean, dry, and free of all contamination, including salt deposits before applying coating.

## Safety Precautions

Read each component's Material Safety Data Sheet before use. Mixed material has hazards of each component. Safety precautions must be strictly followed during storage, handling, and use.

***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.

## 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.**

	°F/°C			
	100/38	90/32	70/21	50/10
touch	1	1½	3	6
through	6	8	12	24
recoat				
minimum	3	4	8	12
maximum (days)	3½	5	7	12

*Roughen surface if maximum recoat time is exceeded.*

## Curing time for immersion service\*\*\*

Steel substrate Temperature	Heat cure <sup>†</sup> °F °C hours	Ambient cure		
		12 mils/300µ days	18 mils/450µ days	
212	100	1	NA	NA
180	82	2	NA	NA
160	71	4	NA	NA
140	60	8	NA	NA
122	50	24	NA	NA
104	40	96	NA	NA
86	30	NA	4	6
70	21	NA	7	9½
59	15	NA	10	13
50	10	NA	14	19

\*\*\* After application and during the above curing schedule tanks must be ventilated to prevent solvent entrapment.

<sup>†</sup> For maximum chemical resistance, minimum cure temperature is 104°F (40°C).

Thinner	Amercoat 65 or 101
Equipment cleaner	Thinner or Amercoat 12

## Shipping Data

Packaging units	1 gal	5 gal
	cure	0.20 gal in 1-qt can
resin	0.80 gal in 1-gal can	4 gal in 5-gal can
Shipping weight (approx)	lb	kg
1-gal unit		
cure	2.0	0.9
resin	11.3	5.1
5-gal unit		
cure	8.7	3.9
resin	55.0	25.0

Shelf life when stored indoors at 40 to 100°F (4 to 38°C)  
cure and resin 1 year from shipment date

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



Ameron U.S.A. • 13010 Morris Rd, Suite 400, Alpharetta, GA 30004 • (678) 393-0653  
Ameron B.V. • J. F. Kennedylaan 7, 4191 MZ Geldermalsen, The Netherlands • (31) 345-587-587



## Safety Precautions

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**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.

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