



Performance Coatings & Finishes

Dimetcote® 9H/ Amercoat® 741

High heat cycling exhaust coating system

Product Data/ Application Instructions

- Meets the requirements of Solar Turbines ES 9-94 specification for coating systems to 750°F and 1000°F

Dimetcote 9H topcoated with Amercoat 741 will perform up to 1,000°F substrate temperature on exhaust systems that cycle. This system is designed to resist corrosion that can occur over extended periods of downtime, while providing excellent resistance to high temperatures associated with exhaust systems for gas turbines during times of operation.

The following information is specific to the use of the Dimetcote 9H/Amercoat 741 system for high-temperature service up to 1000°F. For comprehensive product information, please refer to Ameron's published product data sheets and material safety data sheets. However, when recommendations contained herein differ from those specified in Ameron's published literature, e.g. allowable dry film thickness, the guidelines contained herein will control.

Typical Uses

OEM equipment operating at temperatures up to 1000°F (538°C) subject to thermal cycling and/or corrosive environmental conditions.

Typical Systems

1st Coat	2nd Coat
Dimetcote 9H	Amercoat 741

Physical Data

Finish	Dimetcote 9H	Flat
	Amercoat 741	Flat
Color	Dimetcote 9H	Green
	Amercoat 741	Pearl gray
Components	Dimetcote 9H	3
	Amercoat 741	1
Mixing ratio	Dimetcote 9H	As packaged
	Amercoat 741	N/A
Curing mechanism	Solvent release and reaction with atmospheric moisture	
VOC		
		lb/gal g/L
	Dimetcote 9H	2.7 323
	Amercoat 741	3.1 371
Dry film thickness (per coat)	Dimetcote 9H	2-3 mils (50-75 microns)
	Amercoat 741	2-3 mils (50-75 microns)
Coats	Dimetcote 9H	1
	Amercoat 741	1
Theoretical coverage		
@ 3 mils		ft ² /gal m ² /L
	Dimetcote 9H	427 10.2
	Amercoat 741	336 8.3
Temperature resistance		°F °C
	continuous	1000 538
Flash Point		°F °C
	Dimetcote 9H liquid	55 13
	Dimetcote 9H activator	90 32
	Amercoat 741	65 18
	Amercoat 65	81 27
	Amercoat 12	2 -17
Thinner	Dimetcote 9H	Amercoat 65
	Amercoat 741	Amercoat 65
Cleaner	Thinner or Amercoat 12	

Chemical Resistance Guide*

Environment	Immersion	Splash & Spill	Fumes & Weather
Acidic	NR	F	G
Alkaline	NR	F	G
Solvents	E	E	E
Water	NR	E	E
Saltwater	NR	E	E

F-Fair G-Good E-Excellent

NR - Not Recommended for guidance concerning resistance to specific chemicals. *Contact your Ameron representative.

Surface Preparation

Surface Preparation

Coatings performance is proportional to the degree of surface preparation. Surface must be clean, free of moisture, grease or other contaminants. Round off all rough welds and sharp edges, remove weld spatter.

Uncoated steel, without pits or depressions: Abrasive blast per SSPC-SP10.

Previously painted or pitted steel: Abrasive blast per SSPC-SP-5.

Blast to achieve a 1 to 2 mil (25 to 50 microns) dense anchor profile. After abrasive blasting, the profile should be jagged in nature, as opposed to a peened pattern.

Application Data

Substrates	Prepared steel			
Surface preparation	SSPC-SP5 or SP10			
Method	Airless or conventional spray			
Environmental conditions,				
Dimetcote 9H/Amercoat 741	°F	°C		
air temp	0-120	-18-49		
surface temp	0-130	-18-54		
relative humidity	50-90%			
Post life (hours)	°F/°C			
	90/32	70/21	5/10	32/0
Dimetcote 9H	6	8	12	14
Amercoat 741	NA	NA	NA	NA
Dry times	°F/°C			
Dimetcote	90/32	70/21	5/10	32/0
touch (mins)	5	15	30	60
through (mins)	10	20	40	90
topcoat (hours)	16	24	48	96
Amercoat 741				
touch (mins)	10	15	60	120
through (hours)	8	12	24	72
service (days)	1	2	4	7
Thinner				
Dimetcote 9H	Amercoat 65			
Amercoat 741	Amercoat 65			
Equipment cleaner	Thinner or Amercoat 12			

Application Equipment

Airless spray (D9H only) - Standard equipment such as Graco Bulldog, Hydra-spray, or spaceflo Alaskan P2. A fine finish tip 0.016-0.022 inch or larger must be used.

Conventional spray (D9H or 741) - Standard equipment such as DeVilbess or Binks. A variable speed agitator in the pressure pot and an oil and moisture trap in the main air supply are essential. Separate air and fluid pressure regulators are recommended.

Application Procedure

Dimetcote 9H: Powder, liquid, and accelerator are packaged in the correct proportions which, when mixed together, yield 0.68 gallon or 3.4 gallons of Dimetcote 9H.

Caution - Moisture or water contamination in Dimetcote 9H Liquid will cause shortened pot life, skinning and gelling.

1. Flush all equipment with thinner or Amercoat 12 cleaner to remove any moisture that may be present. Moisture can cause hardening of coating in equipment.
2. Stir liquid with an explosion-proof power mixer.
3. Discard desiccant bag from powder can and gradually stir powder into liquid. Continue stirring until powder is well dispersed, and uniformly blended to a workable consistency.
4. Add activator slowly and continue mixing for 2 minutes, making sure the activator is completely incorporated.
5. Strain material through 30 mesh screen to remove undispersed material and prevent possible clogging of equipment.
6. Pot life is limited and shortened by high temperatures; do not mix more coating than will be used within the specified times.

Important - At the end of the pot life, "kick-out" or separation of liquid and solids occur; together with gassing. Do not keep mixed material which has exceeded the pot life in tightly closed containers as gassing can create enough pressure to cause containers to burst. Cover containers loosely.

7. Keep containers loosely covered during use to prevent skinning or gelling due to moisture in air. Skim off skins and strain material through cheesecloth or 30 mesh screen to remove any remaining skin pieces. Discard gelled material.
8. Thin for workability or when a rough film or "dry spray" is obtained because of fast solvent evaporation during hot weather or high wind. Use 2 oz. of Amercoat 101 per gallon of mixed coating. For low temperatures (60°F) or below or when experiencing slow drying, use 2 oz. of Amercoat 65 per gallon of mixed coating.
9. Adjust spray equipment to apply an even wet coat with minimal over spray.
10. Continue very slow stirring during application to maintain uniformity of material. Avoid fast stirring as this may cause a rise in material temperature and moisture entrainment, shortening pot life and causing gelling.
11. Apply in even, parallel passes, overlap each pass 50 percent. Pay special attention to welds, cut-outs, sharp edges, rivets, bolts, etc., to insure proper thickness. Keep pressure pot at approximately the same elevation as spray gun for proper material delivery to gun.
12. Prevent contact with water until the freshly applied coating is dry to touch.
13. When dry through, check film thickness with a nondestructive dry film thickness gauge. Recoat if greater thickness is required. Recommended thickness is 2-3 mils (50-75 microns). Dry film thickness must not exceed 4 mils (100 microns). Greater thickness may develop cracking.
14. Random pinholes, holidays and small damaged or bare areas can be touched up by brush when film is dry to touch. Larger areas should be resprayed.

Note - Drying and topcoating times will be longer when film thickness is over 4 mils (100 microns), ventilation and air movement are restricted and temperatures or relative humidities are lower. A water mist sprayed over the coating when the film is dry to touch will accelerate hardening at lower humidities.

15. In confined areas, ventilate with clean air during application and drying until all solvents are removed. Temperature and relative humidity of the air must be such that moisture will not condense on the surface until after material is dry to touch.
16. Clean equipment with thinner or Amercoat 12 cleaner immediately after use or at least at the end of each working day or shift. Clean spray guns more often during hot weather. When left in equipment, Dimetcote 9H will harden and plug spray equipment.

Amercoat 741:

1. Dimetcote 9H surface must be clean and dry before topcoating. Water soluble contaminants may be washed off with water. Remove grease and similar contaminants with an emulsion type cleaner or neutral detergent. Rinse with clean water and allow to dry.
2. Before use, clean all equipment with thinner or Amercoat 12.
3. Stir material thoroughly to a uniform consistency. This product is moisture-reactive. Keep containers closed until ready to mix and apply product, to prevent moisture access.
4. Continue to agitate material throughout application.
5. Thinning is not normally required; if needed for workability thin up to ½ pint with Amercoat 65 per gallon of Amercoat 741.
6. Apply a wet coat in even, parallel passes; overlap each pass 50 percent to avoid bare areas, pinholes and holidays.
7. Recommended dry film thickness is 2-3 mils (50-75 microns). Do not exceed 4 mils dry film thickness. Excessive thickness will diminish the service life of the coating system.
8. Film will cure and harden on exposure to moisture and humidity. In winter conditions, the relative humidity is often very low in heated shops. Consult Ameron for guidance prior to application if relative humidity is below 40%.

Note: Recommended total system dry film thickness is 4-6 mils. Maximum allowable dry film thickness for either D9H or 741 is 4 mils (100 microns). Total system Dry Film thickness in excess of 8 mils (200 microns) may result in cracking, which will reduce the service life of the coating system.

Shipping Data

Dimetcote 9H

Packaging unit	.68-gal	3.4-gal
liquid	4.3 lbs in 1-gal can	21.5 lbs in 5-gal can
powder	13.5 lbs in 1-gal can	67.6 lbs in 5-gal can
activator	0.3 lbs in 4 oz plastic bottle	1.6 lbs in 1-qt plastic bottle

Shipping weight (approx)

	lb	kg
0.68-gal unit		
liquid	5	2.3
powder	14.5	6.6
activator	0.5	0.2
3.4-gal unit		
liquid	24.5	11.1
powder	72.6	33
activator	2.0	0.9

Shelf life when stored indoors at 40 to 100°F (4 to 38°C)

liquid and activator	10 months from manufacture date**
powder	2 years from shipment date

****Note:** See manufacture date on container label. Improper storage can result in moisture contamination which will either shorten potlife or result in gelling before shelf life expires.

Amercoat 741

Packaging	1 and 5 gallon containers	
Shipping weight (approx.)	lb	kg
1 gal	16	6.7
5 gal	79	35.7

Shelf life when stored indoors at 40 to 100°F (4 to 38°C)

6 months from manufacture date

Numerical values are subject to normal manufacturing tolerances, colors 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.

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.

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.

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.**

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 invoices 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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