

TECHNICAL DATA

Product Description

A premium quality, high temperature resistant coating which withstands operating surface temperatures up to 1200°F (649°C). CoteAll Hi-Heat Silicone Aluminum is formulated for use in mild to moderate industrial environments. CoteAll is designed for new construction and maintenance applications where outstanding durability and performance are desired.

Intended Uses

Apply to:

- Interior/exterior surfaces
- Various industrial environments
- Ferrous metal
- Maintenance applications

Protects:

- Stacks
- Equipment
- Kilns
- Incinerators
- Machinery

The above are general recommendations and not intended to limit the use of CoteAll Hi-Heat Aluminum. Test areas are always recommended to confirm results.
NOT INTENDED FOR IMMERSION SERVICE.

Physical Properties

Resin Type	Silicone Modified Alkyd
Finish/Sheen	Satin, 40° @ 60°
Colors	Aluminum AZ-2402
Solids by Weight	44%
Solids by Volume	33%
Theoretical Coverage*	521 ft ² /gal @ 1 mil
Dry Film Thickness / Coat	0.75–1.0 mils (50–75 microns)
Wet Film to Achieve DFT	2.0–3.0 mils (117.75–175 microns)
Coverage at DFT*	521–695 ft ² /gal
VOCs	3.45 lbs./gal (414 grams/liter)
Reduction Solvents	DO NOT THIN
Clean-up Solvents	Diamond Vogel N-3023 Xylol
Drying Time**	Set to Touch: 1 hour at 70°F (21°C) and 50% Relative Humidity Recoat: 4–8 hours at 70°F (21°C) and 50% Relative Humidity
ASTM D1640-83 reapproved 1989	
Temperature Resistance (dry)**	1200°F (649°C)

* Coverage rates are estimates based on the products volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity and texture.

** Dry times vary with surface temperature, air movement, humidity and film thickness.

Cure Procedure

CoteAll Hi-Heat Silicone Aluminum must go through a proper cure cycle in order to withstand service temperatures above 200°F (93°C). After the final coat is applied it must be allowed to dry for 24 hours at 70°F (21°C) and 50% R.H.; lower air temperatures and higher humidity will lengthen this time requirement. After the coating has dried, the surface temperature should be elevated to between 300°F–400°F (148°C–204°C) for one hour. After this temperature range has been achieved, allow the surface to cool to ambient temperature and then put into full service.

Qualifications

Performance criteria meet or exceed Master Painters Institute (MPI) #2 and #22 approval standards.

TECHNICAL DATA**Surface Preparation**

All surfaces must be clean, sound, dry and free of all dirt, dust, wax, oil, grease, chalk and any other contamination that would interfere with new coating adhesion. Bare surfaces must be properly prepared prior to application of this product.

New Ferrous Metal & Previously Painted Surfaces: Power or hand washing is recommended to remove contamination. If oil or grease is present, use of a cleaner/degreaser is required. Do not phosphatize. All cleaning residue must be completely rinsed from the surface. Allow to dry. For new steel and complete removal of the old coating, abrasive blast according to SSPC-SP-10, Near White Blast. Blast to achieve a 1–1 ½ mil anchor profile. NOTE: Recoating is most successful when operating temperatures do not exceed 400°F (204°C) and dry film thickness of recoat does not exceed 1 mil. Complete removal by SSPC-SP-10, Near White blast is recommended when redoing surfaces operating at temperatures greater than 400°F (204°C).

Application

Avoid building a thick film with this product. Dry film thickness (DFT) should not exceed 1.0 mil per coat. Stir material thoroughly prior to application. Intermix containers to ensure color uniformity of all material. Minimum surface and air temperature required for application is 40°F (4°C) and at least 5°F (3°C) above the dew point. Curing is affected by temperature, humidity and air movement. Cold temperatures will greatly increase drying time. Application at elevated temperatures, wind conditions, and/or low humidity may require special application procedures to achieve proper film formation. To ensure adequate film build, two coats are recommended at 0.75–1.0 mil DFT per coat (see the drying times chart for recoat period). Allow the product to dry between coats

Brush or Roller: Apply product in full even coats maintaining the recommended spread rates. Maintain a wet edge. Allow the product to dry between coats (see the drying times chart for recoat period). A good quality natural bristle brush will make application easier. Select a roller cover suited for the texture of the surface to be coated.

Airless Spray: Flush airless lines with Diamond Vogel N-3023 Xylol. Equipment must be clean prior to start. Apply a wet coat in even, parallel passes with 50% overlap to avoid bare areas and pinholes. If required, crosshatch spray at right angles. Allow the product to dry between coats.

Tip Orifice	Atomizing Pressure	Material Hose ID	Manifold Filter
0.011" to 0.013"	2500–3000 PSI	1/4"	100 mesh

Packaging**Shipping Weight**

Product	1 Gallon	5 Gallon	Product	1 Gallon	5 Gallon
CoteAll Hi-Heat Aluminum	1 Gallon Pail	5 Gallon Pail	CoteAll Hi-Heat Aluminum	9.43 lbs. (4.27 kg)	46.47 lbs. (21.08 kg)

Storage

Two years from date of manufacture when maintained in protected area at a temperature of 40° to 100°F (4° to 38°C). Subject to inspection thereafter.

Safety Precautions

***WARNING!** If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH-approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

Paint products contain chemical ingredients, which are considered hazardous. Prior to use, read container label warnings and the current Safety Data Sheet for important health and safety information. Ensure these instructions are practiced during product application and cure. **Keep out of the reach of children.**

Safety Data

“Safety Data Sheets” are available from your Diamond Vogel representative or the Diamond Vogel website at www.diamondvogel.com. Prior to use of this product, obtain and review the Safety Data Sheet for health and safety information. Read and observe all precautionary notices on container labels. **NOT INTENDED FOR RESIDENTIAL USE.**

TECHNICAL DATA**Limited Warranty**

The technical data and suggestions for use contained in this document are true and correct to the best of our knowledge at the date of issuance. The statements of this document do not constitute a warranty, expressed or implied, as to the performance of these products. Since Diamond Vogel does not control the application of its products, or the condition of the surfaces to which they are applied, Diamond Vogel's liability will under no circumstances exceed replacement of the product. **All technical information is subject to change without notice.**

Additional Information

Cautions and Warnings information is located on the back panel of each product label. For current information regarding VOC regulations for specific geographical regions, please contact Technical Service at Diamond Vogel Corporate Headquarters, (Contact information is located at the bottom of the page).