

PreKote®

Surface Pretreatment



PreKote is a non-chrome surface pretreatment utilizing a safe, hazard-free technology for use in the painting and coating industries. PreKote offers superior adhesion, improved paint flexibility, and advanced corrosion protection on painted surfaces when used as part of a coating system.

PREKOTE® TECHNOLOGY

The application process deposits a layer that bonds to the surface of metal or composite material. The molecular layer has affinity for metals and organic coatings which allows the coating to get closer to the substrate surface, compared with traditional pre-treatments, creating a stronger bond between substrate and primer or primer and topcoat. It is important to recognize that PreKote is not a conversion coating, does not permanently change the surface of the substrate, and is designed to be an integral part of a coating system, allowing for increased corrosion resistance due to a stronger bond.

PreKote also provides a polar/non-polar molecule that attaches itself to permanently embedded contamination and attracts the coating. In contrast, traditional conversion coatings containing heavy metals such as chrome or zinc have no mechanism by which to attach themselves to permanently embedded contamination, resulting in coating failures such as blisters and outgassing (pinholes).

INTENDED USES

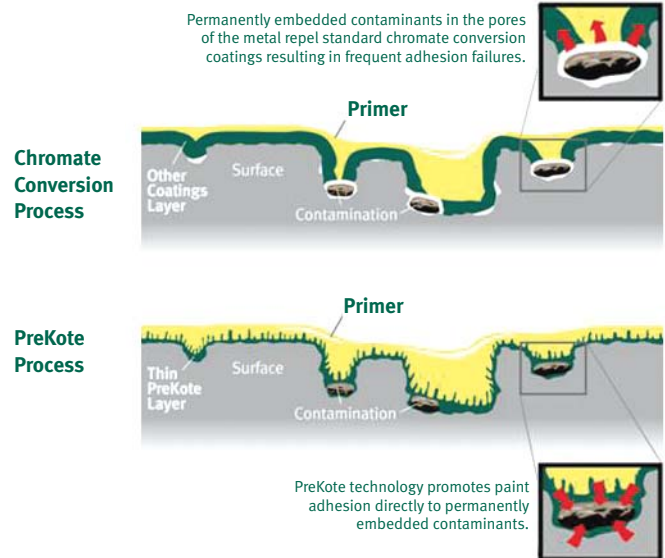
PreKote replaces the use of both chromate and non-chromate conversion coating systems, replacing acid etches, solvent washes, and other toxic substances on metal and composite substrates prior to priming and painting for many applications. Also used as an adhesion promoter for metal to metal bonding, PreKote is a flexible surface pretreatment which can be adapted to virtually any paint or bonding process including large surface area paint jobs, immersion processes, and touch-up applications.

TESTED SAFE ON	
Aluminum	Composites
Steel	Galvanized Surfaces
Magnesium	Plastic Surfaces
Titanium	CRES

PHYSICAL & CHEMICAL PROPERTIES:

Boiling Point 219°F (104°C)
 Freezing Point 18°F
 pH (concentrate) 10.0-11.5
 VOC 69.5 g/L
 Evaporation Rate Less Than Water
 Specific Gravity 0.997
 Vapor Pressure 0.02mm Hg at 20°C
 Vapor Density 1
 Water Solubility 100%
 Biodegradable Rate +90% in 28 days
 Appearance Clear Amber Liquid
 Odor Odorless
 Rinsibility No Visual Residual
 Application Temp. 40-110°F (4-43°C)
 Application Humidity 0-100%

TECHNICAL PRODUCT DATA SHEET



APPROVAL/CERTIFICATIONS	
Boeing Commercial Aerospace Group	EPA – Non CIU Status
Boeing Mesa US Army Apache	US Air Force TO 1F-1A-23
	US Air Force TO 1F-4C-3-1-6
US Air Force TO 1-1-8	US Air Force TO 1T-16A-23

PreKote approvals and certification are always expanding. For more information on the following approvals/certifications or to inquire on additional approval/certifications, please contact a Pantheon Chemical technical representative.

PERFORMANCE RESULTS

Test Description	Test Name	Results
Salt Spray	BMS 10-72, Test #20a ASTM B117	Pass
Filliform Corrosion	BMS 10-72, Test #20b	Pass
Rain Erosion	BMS 10-72, Test #23	Pass
Flexibility	ASTM D4145 (passes 1/8" Mandrel Bend Test)	Pass
Wet Tape Adhesion	BMS 10-72, Test 16	Pass
Corrosion Resistance	ASTM G85 Annex 4	Pass
Hydrogen Embrittlement	ASTM F519-97	Pass
Paint Softening	BMS D6-17487 ASTM F502	Pass
Humidity Resistance	BMS 10-11, Test 24.8.2.16	Pass

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APPLICATION

Surface preparation is the most important step to ensure a long life in any painting application. PreKote can be used in replacement of washing, etching, and conversion coating steps for many application procedures. Application methods vary and can include manual, spray, power wash, ultrasonic and other immersion applications, or a combination of these methods.

Before PreKote Application

- Ensure that the surface area is free of loose debris, such as paint chips or stripping residue, as well as silicon and other foreign matter.

After PreKote Application

- Do not apply a solvent wipe.
- Prior to priming, if there is dust on the surface it can be removed by using a water dampened, lint-free cloth. If fuels and oils are on the surface, use a slightly PreKote dampened, lint-free cloth, changing cloths frequently. Finish with a dry lint-free cloth wipe (in one direction) and prime immediately.

APPLICATION METHOD EXAMPLES

LARGE AREA APPLICATION

Tools Required: PreKote, 180-240 grit aluminum oxide pads, spray gun, rinse water (city quality or better).

Application Procedure: Spray PreKote, agitate with pads, let dwell for 2 minutes, repeat PreKote spray and agitation, finish with a flood rinse, allow to dry, prime, and paint.

Note: In low humidity conditions, apply PreKote in smaller areas. In high humidity conditions, PreKote can be applied in larger areas.

Note: Look for a water break-free surface as an indicator of proper application (typically 2-10 seconds). Repeat PreKote process if water beads or breaks immediately.

TOUCH-UP APPLICATION

Tools Required: PreKote, 180-240 grit aluminum oxide pads, lint-free cloth

Application Procedure: Feather area to be painted, apply PreKote to surface with a slightly dampened, lint-free PreKote cloth, rinse or wipe with lint-free water dampened cloth, allow to dry, prime, and paint

IMMERSION APPLICATION

Tools Required: PreKote, acid etching fluid, rinse water (city quality or better)

Application Procedure: Rinse, etch, double rinse (counter-flow preferred), 2 minute dwell in PreKote, rinse, allow to dry, prime, and paint

PRODUCT HANDLING

PreKote is used at full concentration for most applications. Please consult with the process specific operating guide for more information. A face shield/goggles and rubber gloves are recommended for handling PreKote during application. Please refer to the MSDS for more information or contact a Pantheon Chemical technical representative. The manufacturer's recommended shelf life is 36 months from the date of manufacturing when maintained in protected storage at 40-100°F (4.4-37.7°C) in closed containers. Once opened it is recommended that the product be used within one year. Containers should be sealed when not in use.

SAFETY BENEFITS

PreKote is a non-chrome surface pretreatment product and is non-toxic, non-hazardous, non-flammable, non-corrosive, CFC free, ODS free, odor free, and readily biodegradable upon disposal. PreKote does not require additional HAZMAT shipping charges and can reduce rinse water usage and potentially eliminate waste water treatment from many processes.

The US Environmental Protection Agency (EPA) awarded PreKote for having environmentally preferable chemistry as a designation in the Design for the Environment (DfE) award. The EPA has also determined that PreKote is not one of the six core metal finishing effluent operations and does not trigger categorical industrial user (CIU) status. There are no Federal regulations restricting the disposal of PreKote into municipal wastewater systems, however please consult your local municipality before disposing of product.

SAFETY AND WARNING

Review Material Safety Data Sheet for appropriate health and safety warnings before use. Material Safety Data Sheets are available from Pantheon Chemical.

Skin: Wash thoroughly with hand soap and rinse with water.

Eyes: Flush with large amounts of water. If irritation persists, seek medical attention promptly

Inhalation: No fumes. No precautions necessary.

Ingestion: Drink plenty of water or fruit juice. Do not induce vomiting. Seek medical aid.

Spill response: Flush with water. Mop up any remainder and dispose of in normal fashion. Please follow all federal, state or local regulations regarding the treatment of waste.

PRODUCT AVAILABILITY		STOCK NUMBERS
PreKote®	1 Quart (6/case)	065-1002
PreKote®	1 Gallon (4/case)	065-1030
PreKote®	5 Gallon Pail	065-1040
PreKote®	55 Gallon Drum	065-1050
PreKote® Medium Repair Kit	Treats 50-75 sq. ft.	065-1073
PreKote® Large Repair Kit	Treats 200-300 sq. ft.	065-1072

TO PLACE AN ORDER:

Aviall, Inc.
Toll free: 1-800-AVIALL-1
www.aviall.com

FOR ALL OTHER INQUIRIES CONTACT:

Pantheon Chemical
Toll Free: 1.888.608.7888
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