PREKOTE BLUE

SURFACE TREATMENT AND ADHESION PROMOTER

Technical Data Sheet

Approvals and conformities

BOEING Conforms to BSS 7432 (Acid Brighteners and Corrosion

Removers; Exterior and General Cleaners, Liquid Waxes,

Polishes and Polishing Compounds)

BOEING (HELICOPTERS,

MESA)

HMS15-1100 QPL

US Air Force TO-1-1-8

PreKote Blue is a ready-to-use pretreatment that cleans, deoxidizes, and promotes adhesion of coatings to metallic and composite surfaces. PreKote Blue is the original PreKote formulation with a trace amount of blue colorant, which provides users with a temporary visual indication of the area to which it has been applied.

Advantages/Benefits

- Allows for visualization of the application area.
- Single component cleaning and adhesion promotion surface treatment. Significantly reduces
 processing time, number of products required, and water usage compared to existing
 conversion coatings.
- Chromate-free alternative to conversion coatings.
- Versatile surface pretreatment; compatible with most coating systems.
- No dilution needed. Use as-received.

Substrates have millions of microscopic grooves where contaminants become embedded and difficult to remove. These contaminants can impede the adhesion of coatings to the substrate, leading to failures such as chipping, peeling, and blistering. **PreKote Blue** cleans the surface and improves surface wettability. This significantly reduces the risk of adhesion failure between the substrate and coating and maximizes corrosion protection.

PreKote Blue does not contain chromates and is non-toxic, non-hazardous, non-flammable, non-corrosive, CFC-free, odor-free, and non-ozone depleting. The liquid format is readily biodegradable upon disposal. As PreKote Blue is non-hazardous, users can reduce HAZMAT shipping and storage costs. The product requires less rinsing, thus reducing water consumption.

The US Environmental Protection Agency (EPA) found the original PreKote to have environmentally preferable chemistry compared to traditional conversion coatings. PreKote® has been recognized with 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.



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Available Formats

- Quart
- Gallon
- 5-gallon pail
- 55-gallon drum
- 275-gallon tote
- Wipe format in development

DIRECTIONS FOR USE

PreKote Blue may be used in both original manufacturing and maintenance, repair, and overhaul applications. It can be applied by spray, power washer, or immersion. It is also suitable for touch-up and repairs. PreKote Blue may be applied to the following substrates:

- Aluminum alloys (including anodized)
- Composites
- Magnesium alloys
- Plastics
- Steel (including stainless alloys and galvanized)
- Titanium alloys (including anodized)

Surface Preparation

Before applying PreKote Blue:

- Any existing coating systems should first be removed with a suitable paint stripper. SPC and SOCOSTRIP paint strippers are suitable for use.
- Thoroughly clean all surfaces to be treated. DS-108 and DIESTONE cleaners are suitable for use.
- Rinse the surface to remove any remaining dust and debris.
- Mask all areas that will not be treated with PreKote Blue.

Application

Equipment Recommendations

- PreKote Blue, as-received (do not dilute)
- Aluminum oxide pads (280-400 grit)
 - <u>IMPORTANT</u>: Use only aluminum oxide pads to scrub the surface. Use of any other pad may further contaminate the surface and prevent adhesion of the coating.
- Spray gun with 1.6-1.8 mm spray tip
- Municipal water
- Optional: pole scrubber or pneumatic sander. Pole scrubbing is recommended; however, pneumatic sanders may be used.

Workflow Recommendations for Application to Aircraft





- Work from the tail section forward; begin on the top and outboard of the aircraft, working inward and downward.
- Work in small sections. Horizontal surfaces allow for larger work areas than vertical areas. The top of the vertical stabilizer will require a smaller work area.
- Pay particular attention to high erosion areas such as leading edges.

Procedure (Oxidized Substrates and Composites)

- 1. Apply a flood coat of PreKote Blue to the designated area.
- 2. Scrub the area with an aluminum oxide pad using overlapping horizontal motions until you see a rich lather. Do not allow PreKote Blue to dry on the application area at any time during application. If drying occurs, PreKote Blue must be reapplied.
- 3. In the same area just treated, apply a second application of PreKote Blue. The second application is necessary in order to remove the soil and contaminants lifted by the first application. Do not rinse between applications.
- 4. Scrub the surface once more with an aluminum oxide pad, this time using overlapping vertical motions until you see a rich lather. <u>Do not allow PreKote Blue to dry on the surface.</u>
- 5. Immediately following the second PreKote Blue application, rinse the treated area thoroughly from top down. When rinsing, pay special attention to seams and depressions to ensure thorough removal of PreKote Blue.
- 6. Look for a water break-free surface as an indicator of proper application (typically 10 seconds). If water beads or breaks immediately, repeat the PreKote Blue procedure.
- 7. Allow surfaces to dry prior to painting. Forced hot air drying is acceptable as long as the air is filtered and free of particulates.
- 8. Repeat the procedure above for the remaining sections of the part/structure.

Procedure (Prepared, Non-Oxidized Substrates and Small Touch-Ups)

- 1. The part should first be prepared following the Surface Preparation guidelines above.
- 2. Dampen a clean, lint-free wipe with PreKote Blue.
- 3. Wipe the surface in one direction to maximize removal of contaminants.
 - I. Wiping back and forth or in circles spreads and further embeds contaminants.
 - II. Use light, uniform pressure on the wipe during the application process.
 - III. The wipe should only be damp to touch. Do not oversaturate the wipe or apply PreKote Blue directly to the surface of the part.
 - IV. The wipe may be folded and used multiple times as long as a clean side of the wipe is used on each pass.
- 4. Allow surfaces to dry prior to painting. Forced hot air drying is acceptable as long as the air is filtered and free of particulates.

Post-Application

- Substrates should be painted within 24 hours of PreKote Blue application.
- Do not use any solvents on the surface after applying PreKote Blue.
- There should be no evidence of a wax-like appearance on the surface. If there is a wax-like film, a single coat application of PreKote Blue should be repeated (steps 1, 2, 5, 6, and 7 of *Oxidized Substrates and Composites* application procedure).
- Inspect all areas previously masked for intrusion of chemicals used for surface preparation to ensure chemicals have not entered any cavities.



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- Use a water-dampened lint-free cloth to remove any dust prior to painting.
- If fuels and/or oils have contaminated the substrate, moisten a lint-free cloth with PreKote Blue and wipe off in one direction to prevent smearing the contaminant across the surface. In the same direction, immediately wipe off any excess PreKote Blue with a dry lint-free cloth. Prime the substrate immediately.

TECHNICAL CHARACTERISTICS

PreKote Blue has passed the following tests for pretreatments.

Test Description	Test Name and Methodology	Results
Salt Spray	AMS3095A (3.2.2.8), ISO 7253 Panels primed and topcoated	Pass
Cross-Hatch Adhesion	AMS3095A (Table 3, 3.2.2.3), ISO 2409 Panels primed	Pass
Immersion Corrosion	BSS 7432 (Section 7.2), ASTM F483	Pass
Surface Tension	ASTM D1311	Pass

PRECAUTIONS FOR USE AND STORAGE

Shelf Life

- Store in original closed packaging at 40-100°F (4-38°C).
- Unopened: 36 months from date of manufacture.
- Opened: 12 months. Seal the container when not in use.

For more information regarding the danger of the product, please consult the product safety data sheet according to local regulation.

Appropriate ventilation and personal protective equipment are recommended. For professional use only.

This technical data sheet replaces and cancels the previous one.

The above details have been compiled to the best of our knowledge. They have, however, an indicative value only and we therefore make no warranties and assume no liability in connection with any use of this information, particularly if a third party's rights are affected by the use of our products. The above information has been compiled based upon tests carried out by SOCOMORE. All data is subject to change as SOCOMORE deems appropriate. The data given is not intended to substitute for any testing you must conduct in order to determine the suitability of the product for your particular purposes. Pictures are not contractual. Please check your local legislation applicable to the use of this product.



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Should you need any further information please contact us.

