

Hump seal repair kit instructions

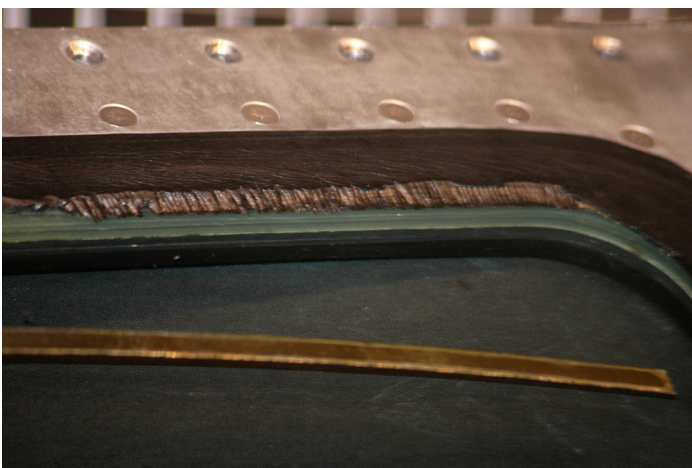
Description

The outboard moisture, or weather, seal protects aircraft windshield from moisture ingress, which can cause delamination, interlayer degradation and windshield heating system damage. Commonly called a hump seal because of its appearance, this seal also acts as an aerodynamic smoother and covers the outboard edge of the transparency. An aircraft windshield's sealant system is the most critical element in extending windshield service life. Because it is subject to the effects of wind and rain erosion and UV exposure, a hump seal can degrade over time. It is important to maintain the seal.

PPG makes it easy to repair a hump seal in the field with hump seal repair kits designed for windshields on commercial and general aviation aircrafts. The kits contain everything needed to repair a hump seal on a windshield, including PR-1425CF B 1/2 chromate-free* windshield sealant by PPG's aerospace business. Hump seal repairs can be done overnight on the line or during a minor maintenance check in the hangar. PPG recommends inspecting the windshield moisture seal every four months or every 1,000 flight hours, whichever occurs first, for signs of erosion, degradation or cracking.

Contact PPG to talk to our aerospace transparencies experts for more information or to purchase PPG hump seal repair kits.

On the back are easy-to-follow steps for repairing a hump seal using the PPG Hump Seal Repair Kit for the applicable windshield. This information is intended as a general guide only and does neither replace nor supersede the



This hump seal shows evidence of wind and rain erosion, and it should be repaired.

recommendations provided by the OEM in the applicable Aircraft Maintenance Manual (AMM) or by PPG in the Abbreviated Component Maintenance Manual (ACMM). Please consult the applicable document for the specific hump seal repair procedure to apply.



The PPG hump seal repair kit contains everything needed to repair the seal on a windshield:

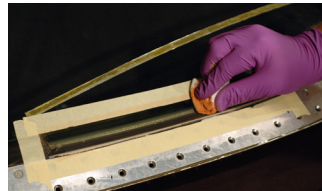
- SEMCO® scraper
- Razor blades
- Masking tape
- Butt guide
- Squirt bottle sprayer
- Gauze pads
- Delicate task wipers
- Rubber gloves
- Cellulose sponges
- Moisture seal forming tool for specific windshield
- PPG sealed package containing
 - PR-1861 adhesion promoter
 - PR-1425CF B 1/2 chromate-free* sealant packaged in SEMKIT® cartridge
- Extrusion nozzle
- Container of polishing compound Semco

Semkit cartridge dispenser, deionized water and Isopropyl alcohol cleaner shall be sourced independently for the repair by the end user.

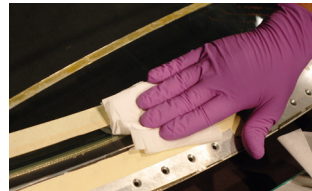
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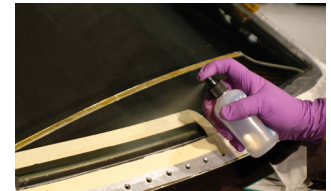
Step 1



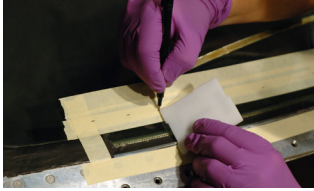
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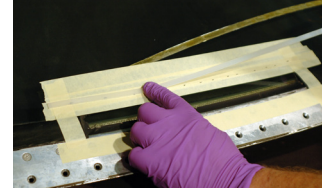
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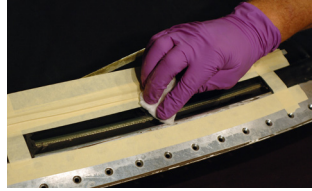
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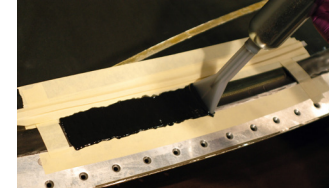
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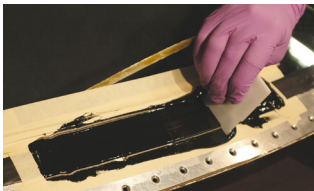
Step 6



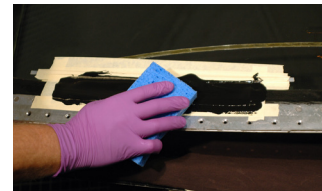
Step 7



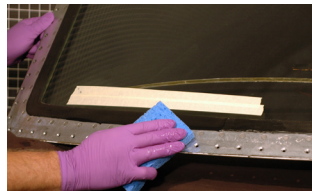
Step 8



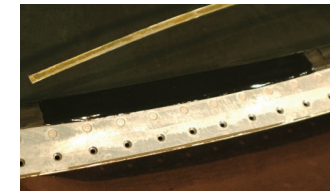
Step 9



Step 10



Step 11



Step 12

Step 1. Apply masking tape around the damaged area of the hump seal. Carefully remove only the damaged area of the seal with a razor blade, following the ACMM.

Step 2. Fill the container of polishing compound to the top with deionized water to create slurry. Shake the container thoroughly to mix the contents. Carefully dip task wipers into the polishing compound and polish the exposed surface by hand to remove any dirt or oils.

Step 3. Wipe the cleaned area with a task wiper to remove any polishing compound residue.

Step 4. Test the surface by using the supplied squirt sprayer filled with deionized water. A water-break free surface is when the water completely “wets” or “sheets” over the surface with no sign of drawing up or receding into droplets showing dry areas in between. Achieving a water-break free surface is critical to insure a good adhesion of the adhesion promoter to the outer glass surface.

Step 5. After a water-break free surface is obtained, clean the entire area with an 50% isopropyl alcohol and 50% water solution and wipe dry with task wipers. Apply additional masking tape to the area around the removed sealant. Use the forming tool as a guide to mark a line on the tape for applying the butt guide.

Step 6. Apply the butt guide along the marks. The guide will be used to form a uniform shape for the finished seal.

Step 7. Use gauze pad to apply PR-1861 adhesion promoter

to the clean glass and metal surfaces. Allow to air dry for a minimum of 30 minutes.

Step 8. Thoroughly mix and apply PR-1425CF B 1/2 windshield sealant (compatible with PR-1425 sealant if used as the original hump seal).

Step 9. Form the outboard moisture seal by pulling the forming tool along the Butt guide to the cleaned and primed surfaces.

Step 10. Wipe the surface with a water wet sponge to smooth the sealant.

Step 11. Remove the tape and smooth the sealant again with a water wet sponge.

Step 12. Allow the sealant to cure according to the recommendations on the *Semkit* package of PR-1425CF B 1/2 sealant. The finished repair shows the new seal merging with the original seal.

Health precautions

This product is safe to use and apply when recommended precautions are followed. Before using this product, read and understand the Safety Data Sheet (SDS), which provides information on health, physical and environmental hazards, handling precautions and first aid recommendations.

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*Chromium is not intentionally added in the formulation of this product. PPG's "chrome free" statement is based on our knowledge of the product formulation.

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