



## ToughGuard Nano-Resin Protective Coating System

### Aviation Application Instructions:

#### SURFACE PREPARATION:

**NOTE:** Proper surface preparation is vital to the performance of the ToughGuard NanoResin Protective Coating. It is very important to remove all waxes; sealants and any petroleum based products completely from the surface prior to applying the **STEP-2 Nano-Resin** Protective Coating. If paint correction is needed, do this before applying **STEP-1 & STEP-2**. Make sure to remove all residual polishing compounds residues from paint before applying the **STEP-2/Nano-Resin**. It is imperative for the paint pores to be completely clean and void of residual products. A chemical wipe of IPA will help if needed.

#### **Prior to using STEP-1/Prep-Wash**

1. If aircraft is dirty, remove all dirt, grime and grease and other contaminants from the surface prior to using the STEP-1/Prep-Wash
2. It is recommend to use a Clay-Bar cleaning system to remove contaminants embedded into the paint surface.

#### Application Instructions for STEP-1/Prep-Wash

**NOTE:** The purpose of **STEP-1** is two-fold – a). - **STEP-1** helps to remove existing waxes, sealants and other petroleum based products from the paint.

**b). - STEP-1 is an excellent deep cleaning, surface prep product.**

1. Dilute **STEP-1** with fresh water – Ratio of: 8oz (238ml) to 1Gal (3.785L) of clean, fresh water. Warm water is recommended but not necessary.
2. Liberally apply **STEP-1 solution** onto the surface of the aircraft with a clean wash mitt or soft, non-scratching brush. Work in **STEP-1** into the paint surface for maximum cleaning effect. Allow **STEP-1** time to lift off impurities and other waxes or sealants from the surface. This takes approximately 10-15 minutes.
3. After 10-15 minutes, thoroughly rinse the solution from the surface with fresh water.
4. Remove most of the water from the surface prior to applying the **STEP-2/Nano-Resin** product.

**NOTE:** *STEP-1 will help to remove pre-existing waxes, sealants and polishes from the surface. It is critical to prepare the surface properly. If needed repeat the cleaning STEP-1 cleaning process a second time to ensure the removal of all waxes and sealants. Proper surface preparation will help the STEP-2/Nano-Resin Coating to bond with the surface, ensuring product performance and longevity.*

## Application Instructions for STEP-2/Nano-Resin Coating

### **Thoroughly Shake the Tube of STEP-2 Nano-Resin before using**

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**NOTE:** Water can be used as a lubricant to help apply **STEP-2**. If the climate is hot and dry, use a spray bottle filled with clean, fresh water to dampen the surface of the aircraft with a fine mist of water.

1. Dampen the applicator pad with a little fresh water - just damp to the touch. Squeeze **STEP-2** from the tube to the foam application pad. Place a few 1/2" (15mm) sized drops of **STEP-2** onto the pad. Work the product into the paint in a circular motion in a north/south & east/west application pattern ensuring complete surface coverage. If using a Random Orbital Buffer, use a medium speed level to apply **STEP-2**.
2. Apply an ample amount of **STEP-2** coating to the aircraft's paint. Once the **STEP-2** has been applied to the entire aircraft (or major section -depending on the size of the aircraft) allow 2-4 hours for **STEP-2** to cure and bond with the surface before buffing off the dried residue.  
If using a random orbital buffer, remove the application polishing pad and attach a dry fine polishing foam pad or microfiber/terrycloth bonnet to the random orbital buffer. If applying by hand, use a clean, dry microfiber polishing pad, microfiber or terrycloth pad.
3. If using a random orbital buffer, set the speed level on the to medium speed level.
4. Buff off the dried **STEP-2** residue using circular motion in the north/south & east/west buffing pattern while applying medium pressure.

ToughGuard recommends applying a 2nd coat of **STEP-2** to the nose area, top of wings and leading edge (painted) areas of the aircraft. A 2nd coat of **STEP-2** can be applied to the entire aircraft paint if desired. When applying the 2nd coat of **STEP-2** do so before buffing off the 1st coat. Apply the 2nd coat right on top of the first coat 1-2 hours after applying the 1st coat. Then wait 2-12 hours to buff off all dried and excess **STEP-2** coating.

**NOTE: Up to 3 coats of ToughGuard's STEP-2 Nano-Resin coating can be applied to the aircraft's paint for ultimate results**

The total curing time takes approximately 24 hours. The aircraft fly after the application process, but avoid bird droppings, love bugs, tree pitch and washing the aircraft for the first 24 hour time period.

NOTE: ToughGuard company manufactures and sells aviation washes that are engineered to help maintain the shine and luster of our NanoResin Coating for years. It is not imperative to use our washes, but it is recommended to help ensure the longevity of the coating and your investment. Please contact us for further information at: 503-746-7171 or [info@toughguard-aero.com](mailto:info@toughguard-aero.com)