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# EM Blocking Solvent Spray KleGuard

## General Guide for Spray Gun

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### Step 1 for Using a Spray Gun – Prepare your KleGuard or Coating for Spraying

- The first step that is critical in using a spray gun is ensuring KleGuard is properly prepared for spraying. No additive is required to use KleGuard in a spray gun including airless or a pressure fed spray gun – prefer tools. If your KleGuard is too thick please contact Optic Clear Solutions (OCS, [www.opticclearsolutions.com](http://www.opticclearsolutions.com)). Next you should ensure your product surface has been properly prepared.

*Notes: gravity and suction fed spray guns will have to be slightly thinner, contact Optic Clear Solutions (OCS, [www.opticclearsolutions.com](http://www.opticclearsolutions.com))*

### Step 2 for Using a Spray Gun – Prepare the Product Surface

- As important if not more important than having your coating prepared and understanding how to use your spray gun is having the product surface properly prepared. How the surface will be prepared will depend on the surface types you will be applying:
  - For non-electronic parts/panels surface shall be free FOD (foreign object debris) other chemical such as oils, grease, epoxy...
  - For electronic parts can be applied directly to circuit boards, cables/connectors, and workstations. Please note that Circuit boards or bare metal components that are electrified must be conformal coated prior to applying the coating as KleGuard is conductive.
- It is always a good general rule to ensure your product surface has been clean of any dust just prior to KleGuarding by using a thinner to wipe down the surface.

### Step 3 – Select the Proper Fluid Tip and/ or Air Cap

- If you are using a spray gun that offers a variety of air caps and fluid nozzles, you want to review the cap and nozzle options available in order to select the best size suited for the KleGuard. For most gravity spray guns, you have to pick a fluid tip that allows KleGuard to flow when you have the trigger pulled. Once you know you have a tip at least big enough to allow material to flow, next is ensuring that your tip is allowing you to control the amount of KleGuard you apply effectively. This can require performing a few test patterns to see if you are comfortable without the amount of KleGuard that you are getting out of your spray gun. You will want to verify your

air cap is meant for the viscosity of KleGuard you're spraying as some air caps are not designed to atomize heavier material. Of course, if your spray gun only has one air cap and fluid nozzle option then you use what you have and go on to the next step to see if you can spray the material.

#### Step 4 – Air Pressure

- Our recommendation is 30 to 40 PSI
- If your using an HVLP Spray Gun you want to keep pressure to the gun below the pressure listed on the spray gun cap, which represents the maximum pressure that you can use and still get the KleGuard waste reducing benefits of HVLP. You want to increase air pressure while doing test sprays with the goal of achieving the proper amount of break up.

#### **How to use a Spray Gun**

#### Step 5 – Use Good technique

- While your KleGuard (if you are using an air spray gun) you want to keep the spray gun about 6 – 8 inches away from the product's surface or about a hand's length. You want to move back and forth at an even pace. You also want to overlap each pass by about 40%. You want to keep the spray gun perpendicular to the surface and avoid swinging your wrist. All of this will ensure you have an even consistent spray technique and result in the best finish.

#### Step 6 – Evaluate Your Initial Results

- You may also want to perform a check on how much KleGuard you put on the surface after a pass or two to ensure that you have selected the proper tip and are moving at the right speed to apply enough material. If material runs while KleGuard that typically signals that your KleGuard is too thin or your tip is too big. On the flip side if you are not getting enough KleGuard you may be using too small of a tip or may need to consider using a pressure feed spray gun or airless sprayer.

#### Step 7 – Finish the Part

- After all the initial work has been completed you can go ahead and spray KleGuard the rest of the product.

#### Step 8 in using a spray gun – Write all the settings and details Down!

- If you get the results you hoped for it can benefit you greatly to record the air pressure settings, the fluid tip, and air cap you used. This information will help you get repeatable results if you spray the material again in the future.

## Step 9 – Clean your Spray Gun

- **Only use Tetrahydrofuran solvent to clean**
  - Tetrahydrofuran, or oxolane, is an organic compound with the formula  $C_4H_8O$ . The compound is classified as heterocyclic compound, specifically a cyclic ether. It is a colorless, water-miscible organic liquid with low viscosity.
  - It is readily available in the market including Amazon.
- After your job is finished you want to be sure to thoroughly clean your spray gun so that it will perform well for you the next time you need it. Proper cleaning will involve emptying all KleGuard from the spray gun, running cleaner (Tetrahydrofuran solvent) through the spray gun until cleaner is coming out of the gun, and then ensuring the air cap is thoroughly cleaned as well.