

IOWA STATE UNIVERSITY

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CENTER FOR STATISTICS AND APPLICATIONS IN FORENSIC  
EVIDENCE

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## Film Powder Print: Procedure

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*Author:*  
James E. KRUSE

*Supervisor:*  
Dr. Guillermo  
BASULTO-ELIAS



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# 1 Introduction

The following is the recommended procedure for taking a powder prints using the adhesive films. Whenever you are working with the adhesive films, please wear gloves. This will keep the film free of residual fingerprints.

## 1.1 Procedure

1. On a hard surface, lay out a piece of foam on the ground. Then, lay a piece if news paper on the foam. Trace the outline of the film with black marker on the newspaper.
2. Pull a chair up to the foam set-up. Near by, have a fume hood containing silver finger print powder, a cloth, a finger print brush, and a large plastic container (Figure 1). Have an air compressor with a long hose nearby.



Figure 1: Supplies needed for dusting prints

3. Have the subject sit on the chair, remove a shoe, and loosen the laces.
4. Over a trash can, tap the shoe lightly to remove any loose dirt or grass. Some pebbles/dirt that is lodged in the tred is OK and could be a distinguishing characteristic.
- Under the fume hood and over the plastic container, brush the shoe with print powder. Dip the tip of the brush in the powder and tap the excess off on the side. Carefully, coat the entire shoe out sole in the powder being sure to include all indents, gashes, and grooves (Figure 2).



Figure 2: Coating the shoe with powder.

5. Once the shoe is coated, take the hose of the air compressor and blow off any extra powder, still under the hood. Be sure to hold the tip a fair distance from the shoe at an angle as to not blow off all of the powder (Figure 3).



Figure 3: Blowing off any excess powder.

6. Return the shoe to the subject and have them put it on. Be sure that nobody touches the sole of the shoe or brushes off any of the powder.
7. While wearing a pair of disposable gloves, take a new adhesive film sheet and remove the back. Place it aside for later use.
8. Place the clear portion, sticky side facing up, in the outline on the news paper.

9. Guide the subjects shoe down onto the film. The subject should place their heel on the film with their toe pointing towards the ceiling. They will then roll their foot into a flat standing position and step up so that all of their weight is on the film (Figures 4-5).



Figure 4: Guiding the Subjects shoe down to the film.



Figure 5: First have the heel make contact.

10. The researcher will then place one hand on the front portion of the shoe and use the other to hold the back corners of the film. Carefully, have the subject step off of the film while the hand on the front of the shoe is still keeping light pressure. Peel the foot forward until only the tip of the toe is

making contact with the adhesive (Figure 6). At this point, step straight off, but do not place the powdered shoe on the ground.

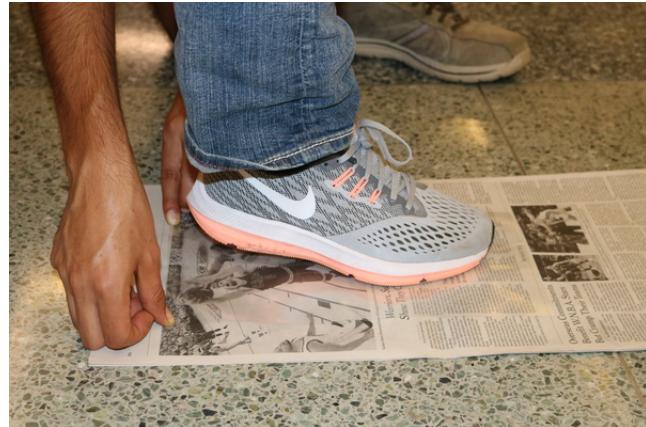


Figure 6: Have the subject step off of the scanner.

11. Have the subject sit back in the chair while keeping the shoe off of the ground. Carefully, place the back onto the film using a roller (Figures 7-8). Please refer to the back of the manual cover page for specific naming procedures and examples. Use the naming tool created by IT to generate the file name. Use the label maker and place a label on the upper right hand corner of the back of the print. Staple the second label to the corner making sure not to damage the print.

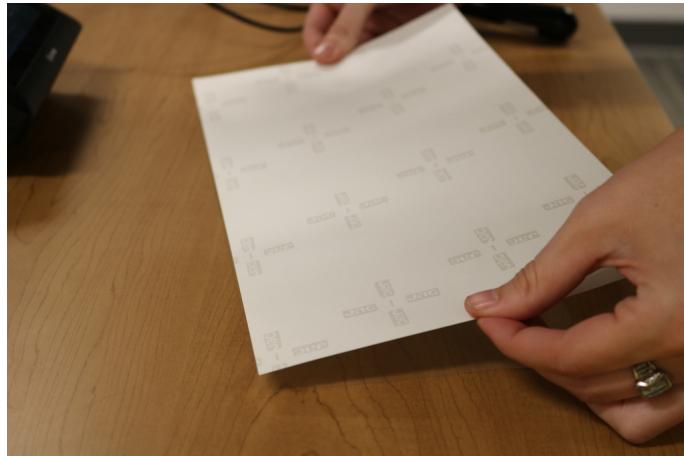


Figure 7: Be sure to match up the side and attempt to have no air bubbles.



Figure 8: Carefully roll the back of the print to eliminate air bubbles.

12. For the second print,take a new adhesive film sheet and remove the back. Place it aside for later use.
  13. Place the clear portion, sticky side facing up, on the news paper near the subject.
  14. Guide the subjects shoe down onto the paper. The subject should place their heel on the film with their toe pointing towards the ceiling. They will then roll their foot into a flat standing position and step up so that all of their weight is on the film.
  15. Have the subject lift their foot, with the film attached, so that the sole is facing the tech.Make sure that they at no time shift their foot on the film! At this point, the tech will grab a corner of the film and quickly peel it off. The subject is now free to walk on the shoe.
  16. Carefully, place the back onto the film using a roller. Label the back of the print using the same method as before. File the prints in the correct folder for the cohort for later scanning.
- \*\*\*\*COMPLEATE REPLICATES FOR SELECTED SHOE PAIRS! SEE LIST IN THE FIRST SECTION OF THIS MANUAL!\*\*\*\*
- Note: For Film Print scanning, Please refer to the bed scanner procedure.