## **Powders**

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#### **Powders**

## 1 INTRODUCTION/SCOPE

Powdering is the application of finely ground, colored powder, which adheres to moisture, oils, and other residues, used by FBI Laboratory Friction Ridge Discipline personnel to develop latent prints.

#### 2 LIMITATIONS

None

## 3 EQUIPMENT

- Nonmagnetic powders
- Magnetic powders
- Applicators

#### 4 PROCEDURE

## 4.1 Application

## 4.1.1 Nonmagnetic Powders

- A. Personnel will complete the following steps in order:
  - 1. Pour needed amount of powder into a small pile or dish.
  - 2. Dip brush bristle tips into powder.
  - 3. Gently brush surface.
  - 4. Brush in direction of any ridges that begin to appear.
  - 5. Build powder onto ridges and stop when latent print reaches a point of sufficient development.
- B. For additional clarity, cotton may be swabbed across the item to increase contrast between the print(s) and the surface of the item.
- C. Personnel should be cognizant of potential contamination issues when conducting examinations (e.g., contamination across different cases or different items or contamination brushes or containers of powder.)
- D. Capture appropriate friction ridge detail as applicable (digitally or photographically).

## 4.1.2 <u>Magnetic Powders</u>

- A. Personnel will complete the following steps in order:
  - Place magnetic wand with magnet engaged into a suitable amount of magnetic powder to produce a bristle-like effect at the end of the wand when withdrawn.
  - 2. Brush lightly along item surface, ensuring that only the powder touches the surface.
  - 3. Brush in direction of any ridges that begin to appear.
  - 4. Build powder onto ridges and stop when latent print reaches a point of sufficient development.

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- 5. When finished, release excess powder into container by disengaging the magnet.
- B. For additional clarity, excess powder can be removed from the print(s) and surrounding area using an empty magnetic wand.
- C. Personnel should be cognizant of potential contamination issues when conducting examinations (e.g., contamination across different cases or different items or contamination brushes or containers of powder.)
- D. Capture appropriate friction ridge detail as applicable (digitally or photographically).

#### 5 SAFETY

See FBI Laboratory Safety Manual for appropriate information.

## **6** REVISION HISTORY

Revision	Issued	Changes
02	07/15/2021	Replace Latent Print Units with Friction Ridge Discipline. Minor wording changes. Streamline equipment list. Re-organization and re-numbering of sections.  Section 3.1 - broken into Section 3.1.1 and Section 3.1.2 and added capture information.
03	07/15/2022	Reformatted