

<b>Section E</b>	<b>Sticky-Side Powder</b>	<b>Subsection 2</b>
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**Name of Procedure:**

Sticky-Side Powder

**Suggested Uses:**

One effective way to recover latent impressions from the adhesive side of tape is with the use of Sticky-side powder. This process can be used to develop impressions on duct tape, masking tape, clear plastic tape, plastic surgical tape, reinforced packing tape, packing labels, paper-backed labels, double-sided foam tape and Band-Aids. Latent impressions have been developed on similar substrates with this method; however, results have not been as successful and should be used in conjunction with other processing methods.

**Equipment Needed to Perform Procedures:**

- A - One (1) camel hair brush
- B - One (1) dropper bottle
- C - One (1) teaspoon
- D - One (1) mixing jar
- E - One (1) rinse tray and/or agitation device
- F - Safety Goggles
- G - Camera (35mm, 2 1/4, MP-4, CU5, TC III )
- H - Fume hoods
- I - Rubber gloves
- J - Forceps

**Chemicals Needed For Preparation of Chemical Solution(s):**

- A - One (1) teaspoon of sticky-side powder (See Other Information for substitutes).

<b>Section E</b>	<b>Sticky-Side Powder</b>	<b>Subsection 2</b>
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B - Approximately thirty (30) ml of Photo-Flo 200.

C - A sufficient amount of distilled water for mixture and rinse.

**Formula/Directions for Preparation of Chemical Solution(s):**

1. Place one (1) teaspoon of sticky-side powder into the mixing jar.
2. Fill dropper-bottle with thirty (30) ml of distilled water and thirty (30) ml of Photo-Flo 200 and shake well.
3. Using the dropper, add this solution to the powder in the mixing jar until a paste is developed which has the consistency of a thin paint.

**Processing Procedures for Application to Item(s) of Evidence:**

**Method #1**

1. Utilizing the camel hair brush, brush the paste onto the adhesive side of the tape.
2. The solution should remain on the tape for approximately ten to fifteen seconds.
3. The tape should be placed in the rinse tray of distilled water, agitated to remove the excess dye and allowed to air dry. The tape may be placed under running tap water; however, the rinse method is recommended.

**Method #2**

Note: Some items may not be suitable for the brush technique such as adhesive labels or paper coated labels and an alternative process may be utilized.

1. Place a small amount of sticky-side powder in a tray of distilled water (the rinse water from Method #1 may be used in this step).
2. Agitate or stir the solution to ensure the powder is completely dissolved.
3. Submerge the item in the solution with the sticky-side up allowing the particles to settle on the tape or label. This step may take a period of time to develop with the latent

<b>Section E</b>	<b>Sticky-Side Powder</b>	<b>Subsection 2</b>
------------------	---------------------------	---------------------

impressions appearing somewhat fainter. Faint latent impressions may require additional processing time and may be returned to the solution.

4. Allow the item to completely air dry.

### **Steps to Preserve Developed Impressions:**

The most appropriate methods to preserve developed impressions is through photography, using the proper techniques (See Photographic Equipment/Procedures) and/or electronically recording the impressions (See Image Processing). Developed impressions may also be lifted from the adhesive side of the tape; however, care should be taken when attempting this procedure as the adhesive from the tape may also be lifted. Lifting the impressions may alter the contrast of the developed impression.

### **Safety Concerns:**

Presently there are no major safety concerns associated with the use of this technique; however, the toxicological properties have not been thoroughly investigated. The powder and chemical solutions should be handled and applied with protective gloves and eye protection. As with all chemicals, improper use may cause some irritation when in contact with the eyes or skin and may be harmful if inhaled or ingested.

### **Storage and Location of Chemicals and Solutions:**

The sticky-side powder and concentrated Photo-Flo 200 should be stored in the appropriate kit and mixed as needed. The dropper mixture of distilled water and Photo-Flo 200 should also be stored in the kit to avoid direct exposure to sunlight.

The mixing jar and the camel hair brush should be thoroughly cleaned after use to avoid contamination and stored in the appropriate kit.

### **Shelf Life:**

Sticky-side powder and Photo-Flo 200 - Indefinite

Dropper mixture of distilled water and Photo-Flo 200 - Thirty (30) days.

Paste mixture - Immediate use only.

**Section E**

**Sticky-Side Powder**

**Subsection 2**

**Other Information:**

If commercially prepared sticky-side powder is not available, various other powders may be substituted. Follow the same mixing procedures and application techniques previously stated. It is highly recommended that test impressions be developed on a similar substrate prior to using other powders on items of evidence.

Both sides of the tape should also be examined during analysis as this procedure will often develop latent impressions on the non-adhesive side of the tape.

Sticky-side powder may be used after super glue and should be followed by fluorescent dyes and/or laser examinations.