

Technical Procedure for TapeGlo

1.0 Purpose - This procedure describes how to use TapeGlo and apply it to items of evidence.

2.0 Scope - This procedure can be used to develop impressions on the adhesive side of duct tape, masking tape, clear plastic tape, plastic surgical tape, reinforced packing tape, packing labels and black electrical tape.

3.0 Definitions

- **Alternate light source** - Any of the multiple forensic light sources readily available in the Digital/Latent Evidence Section including, but not limited to, the CrimeScope, Mini-CrimeScope, TracER Laser, and Ultra-Lite ALS.

4.0 Equipment, Materials and Reagents

4.1 Equipment and Materials

- Lab coats and gloves
- Face shield visor and/or safety goggles
- Adequate ventilation
- Dark shatter proof storage container (one liter) stored at room temperature
- Processing tray
- Water rinse
- Camera/scanner
- Fume hood
- Forceps

4.2 Reagents

- Commercially prepared TapeGlo solution

5.0 Procedure

5.1 Application Procedure

5.1.1 Plastic-Backed Adhesive Tape

5.1.1.1 Forensic Scientists shall produce a self-made test print to be processed concurrently with items of evidence. (See Section Technical Procedure for Ensuring Quality Control.)

5.1.1.2 Place tape, adhesive side up, in a plastic or glass container that is large enough to accommodate the evidence.

5.1.1.3 Pour TapeGlo into the container so that the tape is completely covered by the solution. Allow solution to remain on tape for 10-15 seconds.

5.1.1.4 Remove the tape from the solution and rinse with tap water to remove the excess chemicals and allow drying completely prior to proceeding. (Distilled water may be used at a crime scene, but it is not a requirement.) Examine with an alternate light source.

5.1.1.4.1 Alternate Process One - Use a disposable foam applicator or a camelhair brush to gently brush TapeGlo onto the adhesive surface. Rinse and examine with an alternate light source.

5.1.1.4.2 Alternate Process Two - Place TapeGlo liquid in a spray bottle and spray TapeGlo onto the adhesive surface. Be sure that the adhesive surface is completely covered with a thin layer of solution. Rinse and examine with an alternate light source.

5.1.2 Cloth or Paper-Backed Adhesive Tape

5.1.2.1 Forensic Scientists shall produce a self-made test print to be processed concurrently with items of evidence. (See Section Technical Procedure for Ensuring Quality Control.)

5.1.2.2 Place tape in a tray of fresh, clean distilled water. Allow tape to become saturated for thirty (30) seconds.

5.1.2.3 Place tape, adhesive side up, in a plastic or glass container that is large enough to accommodate the evidence.

5.1.2.4 Pour TapeGlo into the container so that the tape is completely covered in the solution. Allow solution to remain on tape for ten (10) to fifteen (15) seconds.

5.1.2.5 Remove the tape from the solution and rinse with tap water or distilled water to remove the excess chemicals. Allow tape to dry completely prior to proceeding. Examine with an alternate light source.

5.1.2.5.1 Alternate Process One - Use a disposable foam applicator or a camelhair brush to brush TapeGlo gently onto the adhesive surface. Rinse and examine with an alternate light source.

5.1.2.5.2 Alternate Process Two - Place TapeGlo liquid in a spray bottle and spray TapeGlo onto the adhesive surface. Be sure that the adhesive surface is completely covered with a thin layer of solution. Rinse and examine with an alternate light source.

5.1.3 Following the procedures above, conduct examination by using any standard laser or light source and viewing the item at various wavelengths until the impression fluoresces (see Laser/Alternate Light Sources).

5.1.4 Preserve the developed impressions through photography (see photographic equipment procedures) and/or by electronically recording the impressions (see Section Technical Procedure for Image Processing). When photographing clear tapes, be sure that the adhesive side of the tape is facing the camera to record the correct position of the impression. A piece of paper may be placed behind the impression to improve the contrast of the image on clear or transparent tapes. With black electrical tapes, reverse from left to right to record in the correct position. When a laser or alternate light source is used, follow normal procedures to record the fluorescent images.

5.2 Standards and Controls - N/A

5.3 Calibration - N/A

5.4 Sampling – N/A

5.5 Calculations - N/A

5.6 Uncertainty of Measurement - N/A

6.0 Limitations

6.1 The non-adhesive side of the tape shall be processed prior to using TapeGlo (this will include the superglue and powder processes if applicable).

6.2 TapeGlo has an indefinite shelf life; however, replacement every year is recommended.

6.3 TapeGlo shall be stored in the original dark colored container at room temperature.

7.0 Safety - TapeGlo is a water-based solution and is a slight irritant to the eyes and may irritate the skin of sensitive individuals. Protective gloves, eye goggles and lab coats shall be worn to protect clothing and skin. Review the MSDS for detailed information.

8.0 References

Campbell, B.M. "Separation of Adhesive Tapes." *Journal of Forensic Identification*. Vol. 41, 2: 102-106 (1991).

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Lee, H.C. "Methods of Latent Print Development." *Proceedings of the International Forensic Symposium on Latent Prints*. (July 1987): 15–24.

Lennard, C.J. and P.A. Margot. "Sequencing of Reagents for the Improved Visualization of Latent Fingerprints." *Proceedings of the International Forensic Symposium on Latent Prints*. (July 1987): 141-142.

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9.0 Records - N/A

10.0 Attachment - N/A

Revision History		
Effective Date	Version Number	Reason
09/17/2012	1	Original Document