



MAKES IT BRIGHT

PRINT RECOVERY

Latent prints

True latent prints are invisible print impressions caused by the perspiration on the ridges of one's skin coming in contact with a surface and making an invisible impression on it. Perspiration contains water, salt, amino acids, or oils and easily allows impressions to be made. A fingerprint will remain unchanged during an individual's lifetime and fingerprints have general characteristic ridge patterns that permit them to be systematically classified.

Friction ridges

Fingerprints often leave residues of oils in the shape of the friction ridges, but the friction ridge skin itself does not secrete oils, and so some fingerprints will only leave a residue of amino acids and other compounds which powder does not adhere well to. For this reason, 'dusting' is used as part of an array of techniques to develop fingerprints.

Methods to develop fingerprints

Physical development of fingerprints using powders is just one of an array of methods used to develop fingerprints. Others methods include cyanoacrylate (super-glue) fuming techniques, or using ninhydrin or silver nitrate.

Fluorescent powders

Putting dark powder on a dark patterned or speckled surface makes it very hard to see the fingerprint. When the surface is multicolored, or it is difficult to see normal powders, **fluorescent powders are used with an alternative light source** – for example on a glossy magazine with a variety of colors or on a beer can. The print might then be photographed through an optical filter to make it more visible.

Fluorescent powder can be used on both nonporous smooth and rough surfaces. You need only use a very small amount of fluorescent powder to achieve results, which makes it useful on areas you can't clean, like the inside of a computer for example.

Nonporous smooth surfaces:

- Painted or varnished surfaces
- Glass, painted metal, acrylic glass
- Most plastics

Nonporous rough surfaces:

- Vinyl
- Leather
- Textured countertops
- Textured surfaces

Use fluorescent powder and UV light when:

- The surface is dark, patterned or spackled
- The fingerprint is very weak
- The surface is not to be damaged by carbon

Fingerprints and DNA

"It has been found that when used individually the standard recommended chemical or physical methods of latent fingerprint development (including powders) have relatively little effect on the subsequent recovery of DNA profiles."¹ To optimize DNA recovery, DNA processing is best carried out as soon as possible after powdering. When powder is lifted some DNA remains on the surface and some is lifted along with the powder. Photography of the powdered mark on the surface and subsequent swabbing of the mark for DNA may yield results.

Detecting contact areas with only UV light

At some crime scenes, often those more serious in nature, it may be possible to locate contact areas with fluorescence examination for targeted DNA swabbing. Labino offers powerful ultraviolet and forensic lamps that are optimal for this task.

WHAT MAKES THE LABINO® UV LIGHT UNBEATABLE?

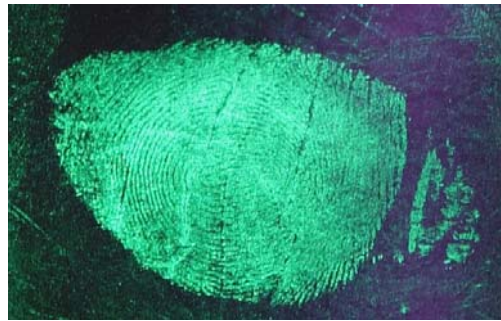
- Its high UV intensity creates new possibilities in the field of crime investigation.
- Labino® high intensity UV lamps are so powerful that they can even be used in normal lit areas or outdoors while still maintaining a high contrast-to-background while maximizing the probability of detecting valuable traces.
- Immediate start and restart – full power in approximately 5-15 seconds.
- Dust tight and temporary water proof, IP65 certified

DISTRIBUTOR:



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Fingerprints on black cup



Fingerprints on patterned cup

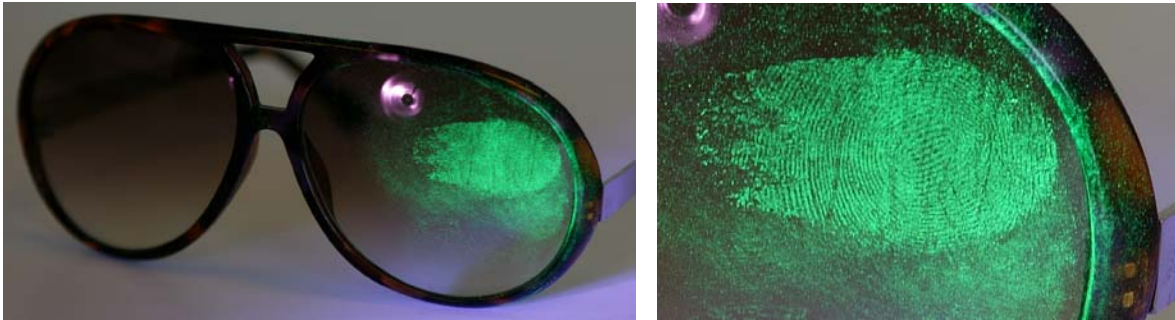


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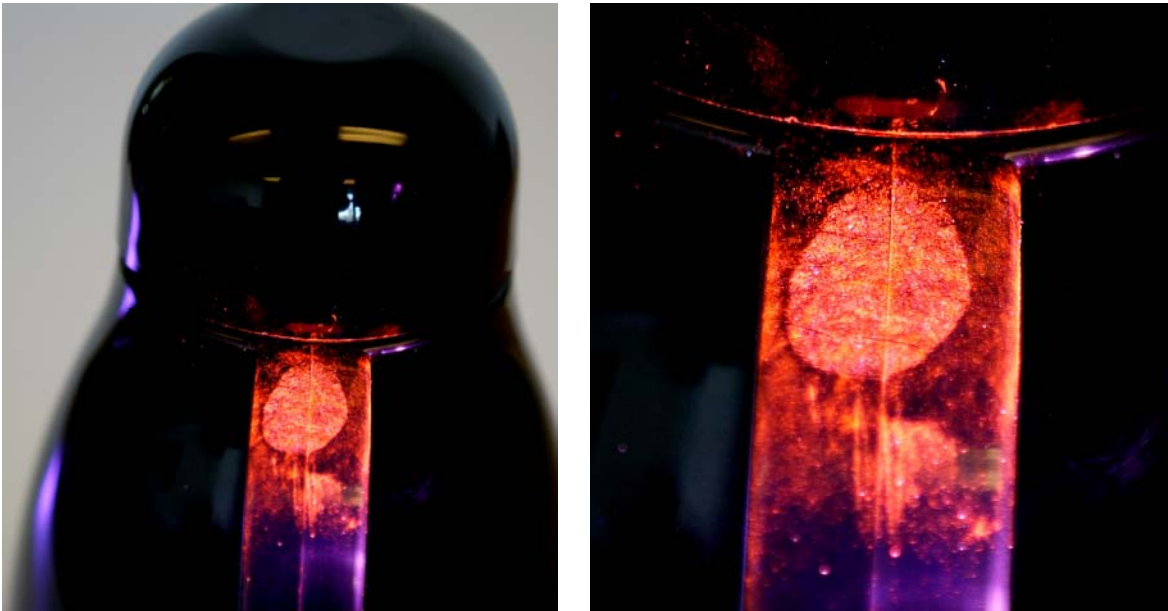


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Fingerprints on brown sun glasses



Fingerprints on black thermos



Photographed using Canon EOS-Ds1. Objective: Canon EF Lens 77 mm. Zoom 24-70, 1:2,8 (No special filters)

Special recognition and thanks to:
1. "Fingerprint Powders Guidelines". <http://scienceandresearch.homeoffice.gov.uk/hosdb/publications/fingerprint-publications/>
2. "Using Fingerprints to Investigate Arson". <http://www.pslc.ws/macrog/firehouse/arson/finger.htm>
3. http://en.wikipedia.org/wiki/Fingerprint_powder