

Nikoui and Associates, Forensic Identification Services and Consulting, LLC

Laboratory Processing User Guide

Revised July 2021

This guide aims to help clients determine whether the items they have collected and plan to submit are suitable for fingerprint processing and recovery. By referring to the user guide, clients can learn about our laboratory's capabilities in processing various types of objects and surfaces.

This guide includes written and visual examples to demonstrate the types of items that can be processed for latent print recovery, with the appropriate processing methods dependent on the surface or substrate type. In our laboratory, we use sequential processing techniques, such as the application of chemicals and physical methods, to increase the chances of latent print recovery. Each process depends on the object's substrate, such as paper, glass, or plastic.

Most items can be classified into one of the three main substrate categories mentioned below:

1. Non-Porous Surfaces
2. Porous Surfaces
3. Semi-Porous Surfaces.

1. Non-Porous Surfaces:

These surfaces are not permeable to water, other liquids and air. Examples are glass, many hard and soft plastics, metals, ceramics and painted metals.

Glass and Ceramics

Typical Items: Glass bottles, jars and drinking glasses, windows. Crockery, drinking mugs and pottery.



Rigid Plastic

Typical items: Cowlings, car dashboards, casings for electronic goods, chairs, wheelie bins, melamine kitchen units and worktops, drain pipes, the rigid melamine facings on laminated flooring.



Plastic Packaging (Hard)

Typical items: Blister packs, plastic bottles, clear food containers.



Unplasticised PVC (Polyvinyl Chloride)

Typical items: Door and window frames, fascia boards, trunking, guttering and drain pipes.



Plastic Packaging (Soft)

Typical items: Plastic sheeting, carrier and garbage bags, thin 'crinkly' plastic bags (HDPE) and thicker, 'waxy' plastic bags (LDPE) which are often printed.



Expanded Polystyrene

Typical items: Cups, takeaway cartons, packaging foam, and ceiling tiles.



Currency (Polymeric)

Typical items: Australian dollars, New Zealand dollars, Mexican pesos, Singapore dollars, Vietnamese dong, new issue Canadian dollars.



Plasticized PVC (Vinyl)

Typical items: Shower curtains, inflatable articles (e.g. rubber rings, beach balls), insulation for electrical cables, aprons, fake leather clothing, sports bags, umbrellas, ring-binder covers, table cloths.



Plastic Packaging (Cling Film)

Typical items: Cling film, wrapped food, drugs wraps, pallet wrap.



Rubber

Typical items: Car tires, cable insulation, flexible hoses, rubber mats, latex gloves, condoms, shoe soles, waterproof boots.



Wax and Waxed Surfaces

Typical items: Candles (often formed from petroleum wax or occasionally beeswax), crayons.



Gloss Painted Surfaces

Typical items: Painted doors, door frames, skirting boards, window frames, car exteriors.



Untreated Metals

Typical items: Coins, jewelry, ammunition, ornaments, keys, knives, pipes, tools, door fittings, fencing, security shutters, street furniture.



Adhesive with Non-Porous Backings

Typical items: Brown packaging tape, clear adhesive tape, polymer-backed adhesive labels and stickers, modern US postage stamps, metal-backed stickers.



Grease Contamination

Typical items: Miscellaneous handled items and fixed surfaces that may be contaminated with grease.



Blood Contamination

Typical items: Knives, broken bottles, miscellaneous handled items, fixed surfaces that may be contaminated with blood.



2. Porous Surfaces

These surfaces are composed of materials that absorb water and other liquids. Examples are paper, card, cardboard, untreated wood and matt-painted surfaces.



Paper (Light-Colored, Matt)

Typical items: Documents, newspaper, white envelopes, cheques, paper-based wallpaper, lining paper.



Paper (Thermal)

Typical items: Fax documents, thermal receipts from banks, ATM machines and stores.



Paper (Brown), Cardboard

Typical items: Brown envelopes, brown wrapping paper, cardboard boxes.



Paper (Dark Colored, Matt)
Typical Items: Art paper, black-out paper.



Currency (Paper Based)
Typical items: US dollars, Euro, South African Rand, Bank Notes

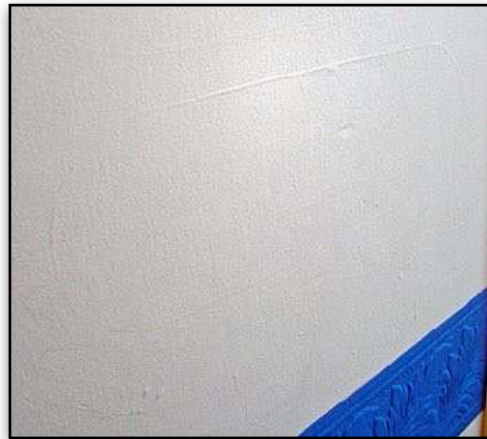
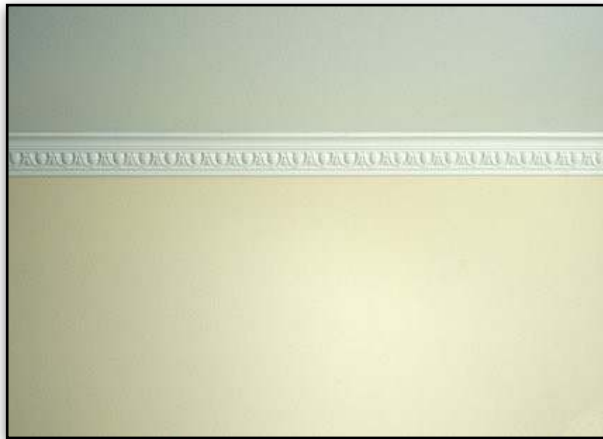


Untreated Wood
Typical items: Tool handles, wood carvings, baseball bats, tree branches, planks, untreated interior doors, floor boards, fencing, furniture, chipboard and fiberboard panels.



Matt-Painted Surfaces

Typical items: Painted interior walls



Adhesive with Porous Backings

Typical items: Paper-backed adhesive labels and stickers, surgical tape



Blood Contaminated Porous Surfaces

Typical items: Wooden tool handles, miscellaneous handled items, and fixed surfaces that may be contaminated with blood.



Date		Code
62	03Nov00	STO RC
63	05Dec00	STO RC
64	01Jan01	INT CP
65	01Jan01	TAX PD
66	03Jan01	CBH WD
67	04Jan01	STO RC
68	05Feb01	STO RC
69	05Mar01	STO RC

Grease Contaminated Porous Surfaces

Typical items: Miscellaneous handled items and fixed surfaces that may be contaminated with grease.



3. Semi-Porous Surfaces

This is a broad category of surfaces which includes both materials of truly semi-porous nature, such as leather, silk- and satin-painted surfaces, and those with regions of porous nature interspersed with non-porous regions, such as heavily printed paper or cardboard.



Printed Paper and Card

Typical item: Glossy magazines, colored wrapping paper, posters, highly printed cardboard packaging.



Oil/Satin-Painted Walls and Wood

Typical items: Oil based painted walls and surfaces



Adhesives Tapes with Semi-Porous Backings

Typical items: Masking tapes, packaging tapes



Adhesives Tapes with Cellulose Backings

Typical items: Some clear adhesive tapes, such as Sellotape



Non-Paper-Based Wallpaper

Typical items: Vinyl-coated wallpapers, lacquer-coated wallpapers and blown polyethylene wallpapers



Cellophane Packaging

Typical items: Cellophane packaging material, food and illicit drugs wrappers



Leather and Leatherette

Typical items: Furniture, wallets, purses, belts, vehicles interior



Blood Contaminated Semi-Porous Surfaces

Typical items: Miscellaneous handled items, fixed surfaces that may be contaminated with blood.



Grease Contaminated Semi-Porous Surfaces

Typical items: Takeaway containers and wrappings, miscellaneous handled items and fixed surfaces that may be contaminated with grease.



Items of Varying Complexity

Items made of multiple material requires application of multiple conflicting and various processes.

Typical items: A glass beer bottle with a porous label, a knife with a metal blade and a black plastic handle, A non-porous surface with double-sided adhesive tape



For more information regarding the type of evidence and our capability as to what we can or can not process, please give us a call or send us an email. We would be happy to answer your questions as realistically as possible.

Nikoui and Associates, Forensic Identification Services & Consulting, LLC
37600 Central Court
Suite 205
Newark, CA 94560
(866)IDWORLD or (866)439-6753

nikouiandassociates@icloud.com
www.nikouiandassociates.com