

Tool Impression Notes

Types of Tool Marks

_____ : when tool is pressed into soft material; Show outline of tool

_____ : when tool slides across the surface; Has a pattern of parallel striations

- Class characteristics are hard to determine because many tools make similar sliding marks

_____ : combination of compression and sliding

Quality of the tool mark is affected by receiving surface:

--Good recipients = Soft metals _____, and painted surfaces

--Bad recipients = Raw wood and hard _____

Processing of tool marks at crime scene

- Identify/search for mark:
 - First places to check: points of _____, locks, safes, etc.
 - Do not alter existing tool marks—no attempt to _____ tool into mark
- Document
 - Notes, sketch, _____—show location, but **not** useful in lab comparison
- Collect:
 - Take the item back to the lab if possible
 - A cast of the tool mark should be made if the object cannot be transported
 - _____ is the ideal casting material

Laboratory Examinations of Tool Marks

- Test marks, Microscopically Compare
 - Make a test mark on a receiving surface to replicate the mark at the scene, using ductile or malleable material (to avoid damage) and the _____
- Compare the test and questioned marks
 - Examining Individual Characteristics- Result from _____ processes, wear, and damage from misuse

Conclusions that can be made

- _____ -Class characteristics and individual characteristics match
- Negative ID -Class characteristics do not match
- _____ - Class characteristics match but that insufficient match in individual characteristics

Tool Marks on Manufactured Items

- Hammer marks on the heads of nails and _____
- Extrusion marks on pipe
- Matching marks on metal _____
- Extrusion marks in plastic film, plastic cling wrap, and plastic bag
- Ream marks on sheets of flat glass
- Punch defect marks on illicitly manufactured drug tablets

Striation Matching for Personal Identification

- Human finger and toe nails have _____ patterns on their upper and lower surfaces.
- Size and spacing of striations is determined by _____ ridges in nail bed
- Nails are prepared for examination by pressing them between two flat surfaces
- Silicone rubber casts of nail ridges can be made and compared _____