

KASSOY LLC
PRECIOUS METAL TESTING WITH ACIDS - HINTS

Please note: We suggest that whenever you are using acids or any other potentially toxic materials, make sure you are working in a well-ventilated area; wear gloves, and a mask as well if you are testing multiple items. Always squeeze the acid bottle gently and slowly. A single small drop is generally sufficient for any reaction. Tighten the bottle completely and carefully when done. To avoid contamination and inaccurate results, clean the stone regularly: wet it, sand lightly with a fine sandpaper (from hardware store is fine) until completely clean, then let dry; apply a very light coating of honing (knife-sharpening) oil, wipe clean with soft paper towel. Practice testing with pieces for which you know the metal content, so you can learn to recognize the reactions of the different metals and fineness.

To protect against incorrect readings on plated metals, use a file to cut a deep groove in a place where it will not ruin the item, to see if the piece is solid or plated. On a chain, try to test behind a link; it's not uncommon for plated chains to have karat gold clasps!

Using Acids with a Test Stone (general principles are the same for any metal)

- Rub the jewelry item on the test stone using 4 firm strokes (back and forth twice), so that a very noticeable streak of metal is laid down on the stone.
- Apply a drop of acid to the center of the streak.
- Observe the metal streak (and compare to color change key below)
 - If the color changes noticeably or the streak disappears, then the metal is less than the karat of the test acid (see below for color change key). Move to next lower karat acid and test again.
 - If the metal streak changes color very slightly, then it has the same karat as the test acid.
 - If the metal streak **does not** change at all, then it has a higher karat than the test acid. Move to next higher acid and test again.**

Example: When using a 14k acid, a 12k gold streak will exhibit a large color change or completely disappear, a 14k gold streak may have a very slight color change, and if the item is higher than 14k, it will not change at all.**

Using Acids on Jewelry (no test stone)

- File the item (as discussed above). Apply a drop of acid in the small groove that you filed. Observe the color (refer to color change key below). Keep in mind that this will likely leave a small discoloration!

Using Acids with Testing Needles

- File the item and rub it on the test stone (as described above).
- Rub a test needle, nearest to the karat you think your item is, next to the mark.
- Apply acid to both marks simultaneously. If the color **does not** match, try another needle until it does.

Color Results: Testing Gold using 14K Acid

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| - Bright GREEN = Gold Plated/Gold Filled (GF) on base metal | - PINKISH CREAM = Plated or GF on Silver |
| - Dark BROWN = 10K Gold | - LIGHT BROWN = 12K Gold |
| - Little or No Color Change = 14K or higher** (White and green gold react slowly, but still leave a brown mark after applying acid.) | - CREAMY Color = Silver (.925) |

Color Results: Testing for Platinum using PT Acid

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| - Streak stays same white color (no change) = Platinum** | - Streak dissolves = Not Platinum |
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Color Results: Testing for Silver using Silver Acid

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| - Bright to Dark RED = Silver (.925+) | - Dissolves or YELLOW = Base Metal |
| - BROWN or GREEN = Lower purity silver or plate | - No Reaction = test for gold/plat |

Acid Bottle Tops – Color Key:

**10K = Yellow Cap; 14K = Green Cap; 18K = Red Cap;
22K = Blue Cap; 925 Silver = White Cap; Platinum = Black Cap**

****Stainless steel will not react to acid. This is a reminder: no one test is foolproof! Stainless steel is heavier than gold, generally doesn't have soldered links, and some stainless steel is magnetic; but may be mismarked (i.e., 18k) if the seller is attempting to defraud you.**