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Instructions for Scratch Testing Gold, Platinum & Silver

CAUTION

Use extreme care in handling gold and silver testing solutions, for they are, corrosive acids. In case of skin contact, flush with large amounts of water. Then treat affected area with sodium bicarbonate or baking soda. If swallowed, contact a physician or hospital at once. In case of spills, treat with water and then sodium bicarbonate or baking soda.

TESTING FOR GOLD

Scratch the piece to be tested over the surface of the black stone provided, press well so as to leave a visible deposit, preferably a line of one to one-half inches long. For the most accurate testing it is recommended that the user becomes familiar with comparative testing using standard gold testing needles. For highest sensitivity place a scratch line with a gold test needle next to the scratch line of the metal you are testing. Compare the speed at which the scratches dissolve. If the test scratch dissolves more quickly than the needle scratch, it is a lower karat than the needle.

Transfer a drop of the 10K solution to the scratch made. If the solution dissolves the scratch on the stone, it means the object is less than 10K gold or not gold at all. If the solution leaves the scratch intact, it means the object being tested is 10K or greater than 10K.

The scratching and testing is repeated with the 14K solution. If the Solution dissolves the scratch on the stone, it means the object is less than 14K gold (if the scratch dissolves slowly and leaves rusty color particles, it is probably 12k gold). If the solution leaves the scratch intact, it means the object being tested is 14K or greater than 14K. (CAUTION: Many objects are marked 14K, but were fabricated prior to 1982 when it was legal to mark items 14K, but in reality the gold was 13.5K. When testing 13.5K gold, the 14K solution will not dissolve the scratch, but it will make it lose its brightness and it will turn it into a yellow-rusty color).

The scratching and testing is repeated with the 18K solution and the 22K solution (if available) until the karat of the object is determined. Remember that when the solution being used dissolves the scratch slowly and leaves rusty color particles it is probably two karats lower than the solution being used.

On items of heavy weight and volume such as chains, coins, etc, where plating could hide the true metal, it is recommended that a deep notch in the test piece be made and the testing be made with the metal inside the piece

TESTING FOR SILVER

Scratch the piece to be tested over the surface of the black stone provided, press well so as to leave a LARGE AND THICK visible deposit, preferably a line of one to one-half inches long.

Transfer a drop of the silver solution to the scratch made, The color reaction of the solution with the metal scratch will be as follows: (Take into consideration that the background of the test stone is black).

90%-100%= Creamy color

77%-90% = Gray color

65%-75% = Light Green color

NOTE: With the silver solution, it is possible to test directly on the piece being tested, however, the solution will dull the polishing of the piece, and leave a mark where the acid was placed.

TESTING FOR PLATINUM AND WHITE GOLD

Scratch the piece to be tested over the surface of the black stone provided, press well so as to leave a LARGE AND THICK visible deposit, preferably a line of one to one-half inches long.

Transfer a drop of the platinum test solution to the scratch made. (Take into consideration that the background of the test stone is black). The material on the stone is platinum, it should keep its white, bright color. Platinum test liquid can also be used for 18k and 14K white gold. In the case of 18K, the material on the stone should start changing to a light bronze color in about 3 minutes. For 14K white gold, the material on the stone should disappear in about 15 seconds.

Please take care. Thank you.

Quick Tips

USING PRE-MIXED ACIDS WITH A TEST STONE

Rub the jewellery on the test stone so that a very noticeable streak of metal is left on the stone.

Apply a drop of the pre-mixed acid to the centre of the streak.

If the metal streak noticeably changes colour or disappears, then the metal is less than the karat of the test acid.

If the metal streak changes colour only 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.

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

USING PRE-MIXED ACIDS ON JEWELLERY

Find a place on the piece of jewellery where you can file a small groove without ruining the jewellery - the intent is to penetrate the thin surface layer of plated metal (if it is plated). Try testing behind a link of a chain if you can - beware that it is not uncommon to use karat gold for clasps on chains that are only plated with gold.

Apply a drop of pre-mixed test acid in the small groove that you filed.

Note the colour change if any (as above when testing on a stone).

Most jewellery pieces have areas of wear that can be good places to test. Occasionally the wear is sufficient to remove any plating and testing these areas without filing can confirm that the jewellery is a lower karat than the test acid. If you do try this and there is no colour change, file a small groove and try again to be sure.