



HOW DO PAWNSHOPS TEST GOLD'S PURITY?

Acid test or touchstone test is a qualitative method to distinguish gold from base materials. It is a common way to check the purity of a gold sample and a standard test preferred by most pawnshops due to its simple process and inexpensive tools.

WHAT ARE THE TOOLS OR EQUIPMENT NEEDED TO CONDUCT ACID TEST?

- Black stone / Black Surface
- Nitric acid
- Gold Sample

HOW DOES ACID TEST WORK?

1 The gold sample is rubbed onto a black stone which will leave a visible gold mark.

2 Two to three drops of nitric acid is applied to the gold mark.

RESULTS:

- An immediate reaction to the acid shows the gold has low purity.
- A green reaction indicates the item is a base metal or gold plated
- A cream or milk-colored reaction indicates the item is gold-plated sterling silver
- If there is no reaction, the item has high purity or is pure gold



ACID TESTING SAFETY PRECAUTIONS

Nitric acid is a colorless or yellow liquid with an acrid odor and corrosive properties. Direct skin contact may cause irritation and severe burns, while eye contact may cause permanent cornea damage. If inhaled, nitric acid causes difficulty in breathing, pulmonary edema, or corrosion of mucus membrane.



Due to its toxic fumes and nauseating odor, it is advised to handle nitric acid in a well ventilated area or in a proper engineering control. A ductless fume hood is suitable for acid testing as it can be easily installed in small spaces without any need for an exhaust system. This containment device is equipped with specialized carbon filters that effectively adsorb and remove acidic fumes and the acrid odor of the chemical. It also has an epoxy worktop that can withstand corrosion caused by the nitric acid.

Esco Ascent™ Max ductless fume hood offers a complete solution, from fume containment to cost-saving features.



References:

- [1] Nitric acid safety tips. <https://www.msdsnline.com/2015/04/27/nitric-acid-safety-tips-health-hazards/>
 [2] Acid Test. <https://shanespawnshop.com/shanes-the-pawn-shop-how-to-tell-if-gold-is-real/>

