



Precious Metals

Gold

Gold, whose atomic symbol is Au on the periodic table of elements, is the most widely desired metal in modern jewelry manufacturing. Easily formed into various shapes it has been sought out by explorers and has been the choice for jewelry artisans throughout the centuries.

Naturally yellow in color it has a specific gravity of 19.3+, considered quite heavy for a metallic mineral. Gold in its purest form is defined as 24 karat (k). As pure gold is too soft for most jewelry uses, it is alloyed or mixed with other metals to alter its properties and color. Common alloys of gold are 18k or 14k. This represents an alloy which contains 18/24 or 14/24 parts gold in the over all mix. The value can also be expressed in percentages of purity as in 75% for 18k and 58.33% for 14k.

White Gold

White gold is naturally yellow in color and must be alloyed to make it white. It is typically alloyed with nickel, copper, and zinc. Because of the alloys used, it can tarnish and can cause allergic reactions. It is often rhodium plated to make it more white.

Of the three white metals, only white gold will hold a polish. Platinum and silver will not. White gold can be cast, set, sized, and retipped just like yellow gold.

White gold looks very similar to platinum but the two have very different properties. It is harder than yellow gold and lighter than platinum. Yellow gold is significantly easier to work with than platinum and cost less than platinum but is more expensive than silver.

Pink or Rose Gold

Recently pink gold - also known as rose gold - has been gaining an audience. The most common appearance of pink gold remains in partnership with yellow and white. It is a popular combination for everything from stackable rings to intertwined hoop earrings.

More often today, however, it is pairing up with white gold alone. Feminine and flattering, pink and white together are found in everything from diamond solitaire necklaces to settings for the more and more popular pink-hued cultured pearls. It is also the primary choice for

stunning gemstone settings such as tourmalines and other pink stones. The appeal of pink is not only surging because it is a new look and in line with clothing trends, but also because it is complimentary to a variety of skin tones.

Platinum

The demand for platinum jewelry has recently experienced rapid growth. Industry sources report the platinum jewelry market grew by almost 60% in 1997 alone.

Platinum metal, whose atomic symbol is Pt on the periodic table of elements is a naturally white metal. Usually gray or silver in color it has a specific gravity of 21.5, making it more dense and heavier than either silver or gold. It is usually alloyed or mixed with other metals such as gold, nickel, iridium, palladium, rhodium, or ruthenium to alter its properties.

Platinum for jewelry is more pure than gold, usually 90-95% pure, hypoallergenic and will not tarnish. It is much more difficult for jewelers to work with due to the extreme heat and techniques required for its manufacture as well as its density. As a result, platinum jewelry costs approximately 2-4 times as much as the same piece of jewelry made in silver or gold.

Silver

Silver, whose atomic symbol is Ag on the periodic table of elements is a naturally white metal. It has a specific gravity of 10.5 making it lighter and softer than either gold or platinum. Silver will not hold a polish and is not good for holding stones. It is the only naturally tarnishing white metal and often causes allergic reactions. Silver is easy to work with and is the least expensive of the precious metals.

Pure silver, which is also called fine silver, is a little harder than gold and is very ductile and malleable. Like gold, it is commonly combined with other metals to yield a more sturdy product. The most common of these alloys is sterling silver, which consists of 92.5 percent silver and 7.5 percent copper. While any metal can make up the 7.5 percent portion of sterling, experimentation throughout the centuries have shown that copper best improves the metal's hardness and durability without affecting its beautiful color.