

METALS AND PLATING

STERLING SILVER- Precious Metal

Like pepper, silver is best served up fresh. If it sits too long without cleaning, it can develop a tarnish that can leave a bad taste in your mouth, figuratively speaking. But regular polishing will keep this metal clean and sparkling.

Sterling silver is considered a precious metal. The majority of sterling silver contains 92.5% pure silver combined with other metals generally copper for strengthening.

Most high quality sterling silver will have a stamp of .925 to show the percentage of silver contained. A registered trademark must accompany this stamp under federal law.

Sterling silver may tarnish when it is exposed to air for extended periods. If you clean your silver jewelry on a regular basis, the piece will serve you for years to come.

Hand lotions harsh cleaning products and other beauty products can damage your silver. Remove your jewelry until your task is completed and the product has dried.

Storing sterling silver in a humid location may also accelerate tarnishing.

Electroplating on silver helps to protect the metal from tarnish and the owner from allergic reactions.

STAINLESS STEEL

This scratch-resistant metal has industrial roots and tends to be used primarily for a rugged and durable effect in jewelry pieces. It has the benefit of having a hypoallergenic finish and a non-reactive surface.

Stainless steel is a blend of various metals but all blends of stainless steel contain chromium and nickel. Stainless steel may tarnish when it is exposed to air for extended periods. If you clean your silver jewelry on a regular basis, the piece will serve you for years to come.

Stainless steel can be anodized to produce a variety of color. Anodizing increases resistance to corrosion and wear.

PLATING

In the jewelry industry, plating refers to the process of coating or bonding one metal to another base metal. The base metal is typically comprised of heartier metals like steel or brass. This base metal is then covered with a precious metal like gold or platinum to give the piece its finished look.

Ion plating is amount the most advanced surface finishing processes in the trade. With traditional plating methods, the gold surface coat can rub off rather easily over time revealing the base metal. Ion plating, however, adds a greater durability to the surface metal making the piece more wear-resistant. Ion plated jewelry has been found to have up to eight times better wear and corrosion resistance over other more conventional plating methods.

METAL PLATING PROCESS

Rather than a simple dipped or 'wet' process for applying the surface metal, ion plated settings receive a negative charge under vacuum pressurization to essentially bond the surface and base metals on an atomic level, aligning the electrons of the two substances. Unlike basic electroplating, ion plating deposits layers of the surface metal atom-by-atom or molecule-by-molecule to ensure a lasting bond.

The thickness of the overlay applied to a setting varies because different pieces are subject to different expectations of wear. For example, a ring on your hand typically sees more wear and tear than a pendant around your neck. Trade standards require that the thickness of the surface metal be substantial enough to assure durable coverage of the base metal to which it has been affixed.

TYPES OF METAL PLATING

Goldtone: A metal with a finish that appears to be gold.

Rosetone: A mixture of 24K gold and copper that appears to be golden pink in color.

Silvertone: A silver-plated coated metal that is not solid sterling silver.

Two-Tone: A combination of two or more color platings.

PLATINUM PLATED STERLING SILVER

The main material is pure silver, commonly, known as pure silver, and then plated with a layer of platinum. Platinum is an alloy of gold and other precious metals. Electroplating has only a very thin layer.

The pure silver thus treated, is not easily faded and blackened, and the color is bright and beautiful for a long time. However, in ready-made-jewelry, silver-gold plating is generally not full silver- it is generally S925, which is 92.5% silver alloy. This alloy is better than silver in hardness and oxidation resistance and is more suitable for jewelry. Silver plating is rare because silver is soft and easy to deform. The deformation will destroy any coating, so the platinum plating of pure silver has little meaning.

RHODIUM PLATED STERLING SILVER

Rhodium is related to platinum. This metal is silver-white. This metal is silver-white in color, resistant to tarnish and other forms of corrosion, even acids, and very shiny. It is so reflective, in fact, that it has been used in mirrors. It is used in jewelry primarily as a hard protective plating for sterling silver and white gold. It is applied as a thin coat through a process of electroplating.

While rhodium is reflective, silver is even shinier. As a result, sterling silver coated with rhodium will not be as bright and shiny as the underlying sterling piece would have been without plating- at least initially. However, over time, silver can tarnish and get tiny scratches. Rhodium coating can minimize such problems. The effect is that, as time goes on, rhodium plated sterling will continue to keep its fresh look longer. It should be noted, however, the plating can wear off eventually and replating may be necessary.