

## Understanding Metals

Metal	Grain Color	Color Description	Finish	Characteristics	Hypo Allergenic
<b>Platinum (Pt):</b> A dense, malleable metal. It is almost always used in its purest form in jewelry, 95%. Platinum is substantial in weight and non-corrosive. Comparatively, a ring in platinum will weigh almost 60% more than the same ring in 14kt gold.					
Platinum		White with a cool undertone	Resistant to wear; shows scratches; slowly dulls to a patina finish	Maintains surface embellishments such as engraving and milgrain; called a "pure metal"	Yes
Palladium		Soft, silvery-white color with slightly gray undertones	Resistant to wear; shows scratches; slowly dulls to a patina finish	Member of the platinum metal group; also in an almost pure form in jewelry, 95%	Yes
<b>Gold (Au):</b> A dense, malleable metal that can be polished to a high luster. It is commonly mixed with other metals, or alloys, to create a wide range of color variations and working properties.					
24kt Yellow Gold		Bright yellow	Shows scratches; can lose shape over time	Fine gold, rarely used in jewelry in its purest form due to the softness of the metal	No
18kt Yellow Gold		Rich yellow	Shows scratches; polishes as worn	18 parts gold or 75% pure gold content; international standard for jewelry; combines purity with performance	No
18kt X1 White Gold		White with a cool undertone	Shows scratches; polishes as worn	Premium white that stays white; excellent for stone setting	No
18kt White Gold		White with a slight yellow undertone; rhodium plating brings to bright white	Shows scratches; polishes as worn	Rigid; more brittle than Platinum; wears overtime; requires rhodium plating to maintain bright white finish	No
18kt Rose Gold		Warm rose	Shows scratches; polishes as worn	Fashionable addition to the gold jewelry family; created by adding cooper alloy to the gold mixture.	No
14kt Yellow Gold		Medium yellow	Shows scratches; polishes as worn	14 parts gold or 58% pure gold content; traditional karat of choice in USA	No
14kt X1 White Gold		White with a cool undertone	Shows scratches; polishes as worn	Premium white that stays white; excellent for stone setting	No
14kt White Gold		White with a slight yellow undertone; rhodium plating brings to bright white	Shows scratches; polishes as worn	Rigid; more brittle than Platinum; wears overtime; requires rhodium plating to maintain bright white finish	No
14kt Rose Gold		Medium rose	Shows scratches; polishes as worn	Fashionable addition to the gold jewelry family; created by adding cooper alloy to the gold mixture	No
14kt Green Gold		Greenish yellow	Shows scratches; polishes as worn	Less commonly produced variation, created by leaving out copper alloy	No
10kt Yellow Gold		Pale yellow	Shows scratches; polishes as worn	10 parts gold or 41% pure gold content; lower gold content makes the jewelry harder and more affordable	No
10kt X1 White Gold		White with a cool undertone	Shows scratches; polishes as worn	Premium white that stays white; excellent for stone setting	No
10kt White Gold		White with a slight yellow undertone; rhodium plating brings to bright white	Shows scratches; polishes as worn	Rigid; more brittle than Platinum; wears overtime; requires rhodium plating to maintain bright white finish	No
10kt Rose Gold		Light rose	Shows scratches; polishes as worn	Fashionable addition to the gold jewelry family; created by adding cooper alloy to the gold mixture.	No

Metal	Grain Color	Color Description	Finish	Characteristics	Hypo Allergenic
<b>Silver (Ag):</b> Silver is a soft, lustrous metal that is very malleable and silver-white in color.					
Continuum™ Sterling Silver		Bright white	Shows scratches; polishes as worn; tarnish resistant	More tarnish resistant than traditional sterling silver; hard enough to set stones securely	No
Sterling Silver		Silvery-white with a slight pink undertone	Shows scratches; polishes as worn; tarnishes	Malleable; less suitable for everyday jewelry because it wears away more quickly	No
Precious Bond		Yellow or white	Shows scratches; polishes as worn	25% lighter than an all gold band; will wear over time like gold; should not be stretched beyond ¼ of a size	No
Metal	Color Description	Finish	Characteristics	Removal Information	Care
Tungsten		Gray (white, black and rose topcoat)	Resistant to scratching	Heavy, substantial feel; can fracture or break Use the Stuller Ring Removal Vise (item# 58-2440) to fracture the ring and it will fall off of the customers finger. Go to stuller.com for video.	Tungsten should be cleaned with soap and hot water, alcohol, or a steam cleaner; do not put into an ultrasonic cleaner or other harsh chemicals; the potential for cracking does exist, so keep ring away from extreme forces
Titanium		Medium gray	Resistant to wear; shows scratches; slowly dulls to a satin finish	Lightweight and shatterproof Use an electric ring cutter or separating disc to cut the ring at two opposite sides of the ring. Once the ring has been cut, it will come off in two halves.	Titanium should be cleaned with a steam cleaner or hot water to remove dirt embedded in diamond bezels or between links; Ultrasonic cleaners may be used on titanium jewelry without stones
Black Titanium		Black	Resistant to wear; shows scratches; slowly dulls to a satin finish	Lightweight and shatterproof; black color is resistant to wear Use an electric ring cutter or separating disc to cut the ring at two opposite sides of the ring. Once the ring has been cut, it will come off in two halves.	Titanium should be cleaned with a steam cleaner or hot water to remove dirt; do not put into an ultrasonic cleaner
Cobalt		Cool white	Will show signs of wear but can be polished	Shatterproof and durable Using a diamond coated drill bit, cut the ring at two opposite sides of the ring. Once the ring has been cut, it will come off in two halves. Go to stuller.com for video.	Cobalt should be cleaned with mild soap and water then gently dried with a soft cloth; do not expose to harsh chemicals like chlorine

**Commonly Used Terms:**

Terms	Available Colors	Description
Physical Vaper Deposition (PVD)	White, black, rose	Top coat used on Tungsten to change the outside color of the material; stronger than immerse or ion plating
Immerse Plate (IP)	Black, rose, chocolate, gold	Plating process that uses colored titanium particles to color metal the desired color then baked to secure the bond; can be scratched and worn off over time; expected lifetime of plating is about 1 year