

PLATINUM & PALLADIUM 101

The term “platinum” often signifies prestige or exclusivity – think platinum credit cards or albums that go platinum – it is also a fitting title for platinum group metals as it contains some of the rarest elements found in the earth’s crust. Platinum and palladium, with symbols Pt and Pd respectively, are silvery-white metals that belong to the group and can be found in many important items, including:



AUTOMOBILES: Platinum and palladium are used to make auto catalysts – devices that reduce more than 90 percent of polluting emissions from the exhaust of vehicles. By acting as catalysts the metals minimize air pollution, converting the gases into carbon monoxide, nitrogen and water vapor. Because of their durability and resistance to corrosion, platinum and/or palladium are also used in the electronic components of engine management systems, antilock braking systems and airbag initiators.

MEDICAL APPLICATIONS:

Compounds of both platinum and palladium have been shown to stop the growth and splitting of cancerous cells when used in chemotherapy drugs. Platinum is also used to make many medical implants including pacemakers. Because of the metal’s conductivity and resistance to corrosion it continues to function without breaking down once implanted in the human body.

JEWELRY: The rarity and beauty of platinum and palladium are a big draw for jewelers, but more importantly is their resistance to wear and tarnish. The strength and durability of platinum makes it a preferred setting for diamonds and wedding rings and because of its lighter weight, palladium is often used for larger jewelry.



Sources: *The International Platinum Group Metals Association and Platinum Today*