

Chemical Properties of Precious Metals

The table below lists some key chemical properties of the four precious metals. The information has been sourced from the website [Environmental Chemistry](#) and further chemical information on each metal can be found by clicking the link in the first row of the table.

The symbols Au, Ag, Pt and Pd are commonly used in the industry as shorthand references and form the basis of the [currency codes](#) for the precious metals.

Property	<u>Gold</u>	<u>Silver</u>	<u>Platinum</u>	<u>Palladium</u>
Latin Name	Aurum	Argentum	Platinum	Palladium
Symbol	Au	Ag	Pt	Pd
Atomic Number	79	47	78	46
Atomic Mass	196.9665	107.8682	195.08	106.42
Melting Point (°C)	1064.58	961	1772	1552
Boiling Point (°C)	2807	2163	3827	2964
Density (gram per cubic centimeter)	19.32	10.50	21.45	12.02
Melting Point (°F)	1948.24	1762	3222	2826
Boiling Point (°F)	5058	3925	6921	5367
Density (punds per cubic inch)	0.697	0.379	0.883	0.434
Electrical Conductivity (106/cm Ω)	0.452	0.630	0.0966	0.095
Thermal Conductivity (W/cmK)	3.170	4.290	0.716	0.718
Hardness (vickers MNm-2)	216	251	549	461
Optical Reflectivity	95%	97%	73%	72%
Abundance in Earth's crust (parts per billion)	11	70	1	0.6
Abundance in seawater (parts per trillion)	10	2.4	0.27	0.068