

WORLD GOLD COUNCIL

Au

Gold

Atomic number 79
Atomic weight 197.0

Melting point 1064°C

Boiling point 2800°C

Density 19.32g cm⁻³

Electrical resistivity (RT)
2.20 x 10⁻⁸Ωm

Thermal conductivity
319Wm⁻¹K⁻¹

Vickers hardness in
annealed condition 22

Thermal expansion
coefficient
14.2x10⁻⁶/°C (20-100°C)

Tensile strength 108MPa

Elongation 42%

Electrode potential +1.68v

Pd

Palladium

Atomic number 46
Atomic weight 106.4

Melting point 1555°C

Boiling point 3167°C

Density 12.02g cm⁻³

Electrical resistivity (RT)
10.6 x 10⁻⁸Ωm

Thermal conductivity
72Wm⁻¹K⁻¹

Vickers hardness in
annealed condition 41

Thermal expansion
coefficient
11.8x10⁻⁶/°C (20-100°C)

Tensile strength 170MPa

Elongation 40%

Electrode potential +0.83v

Ag

Silver

Atomic number 47
Atomic weight 107.9

Melting point 961°C

Boiling point 2210°C

Density 10.50g cm⁻³

Electrical resistivity (RT)
1.6 x 10⁻⁸Ωm

Thermal conductivity
428Wm⁻¹K⁻¹

Vickers hardness in
annealed condition 24

Thermal expansion
coefficient
18.9x10⁻⁶/°C (20-100°C)

Tensile strength 147MPa

Elongation 51%

Electrode potential +0.80v

Pt

Platinum

Atomic number 78
Atomic weight 195.1

Melting point 1769°C

Boiling point 3827°C

Density 21.37g cm⁻³

Electrical resistivity (RT)
10.4 x 10⁻⁸Ωm

Thermal conductivity
72Wm⁻¹K⁻¹

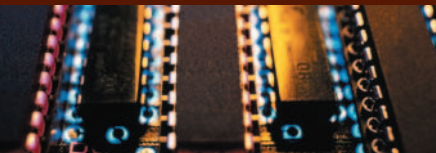
Vickers hardness in
annealed condition 41

Thermal expansion
coefficient
8.8x10⁻⁶/°C (20-100°C)

Tensile strength 123MPa

Elongation 40%

Electrode potential +1.20v



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