Platinum Pellets

Formula: Pt
Percentage Purity: 99.998%
Maximum Lump Size: 6mm
Weight: 4.8g
CAS Number: 7440-06-4
UOM Code: 891-846-34
SKU: 1000173106
Product Code: PT00-LP-000103

Material Properties for Precious Metals

Atomic Properties

Element	Value
Atomic number	78
Crystal structure	Face centred cubic
Electronic structure	Xe $4f^{1}$? 5d? $6s^{1}$
Valences shown	1,2,3,4
Atomic weight(amu)	195.08
Thermal neutron absorption cross-section(Barns)	9
Photo-electric work function(eV)	5.3
Natural isotope distribution(Mass No./%)	192/ 0.79
Natural isotope distribution(Mass No./%)	196/ 25.30
Natural isotope distribution(Mass No./%)	190/ 0.01
Natural isotope distribution(Mass No./%)	195/ 33.80
Natural isotope distribution(Mass No./%)	198/ 7.20
Natural isotope distribution(Mass No./%)	194/ 32.90
Atomic radius - Goldschmidt(nm)	0.138
Ionisation potential(No./eV)	1/ 9.0
Ionisation potential(No./eV)	2/ 18.6

Mechanical Properties

Element	Value
Material condition	Hard
Material condition	Soft

Element	Value
Poisson's ratio	0.39
Poisson's ratio	0.39
Bulk modulus(GPa)	276
Bulk modulus(GPa)	276
Tensile modulus(GPa)	170
Tensile modulus(GPa)	170
Hardness - Vickers(kgf mm?²)	40
Hardness - Vickers(kgf mm?²)	100
Tensile strength(MPa)	200-300
Tensile strength(MPa)	125-150
Yield strength(MPa)	14-35
Yield strength(MPa)	185

Electrical Properties

Element	Value
Electrical resistivity(µOhmcm)	10.58@20@20°C
Temperature coefficient(K?¹)	0.00392@0-100°C

Physical Properties

Element	Value
Boiling point(C)	3827
Density(gcm?³)	21.45@20°C

Thermal Properties

Element	Value
Melting point(C)	1772
Latent heat of evaporation(J g?¹)	2405
Latent heat of fusion(J g?¹)	101
Specific heat(J K?¹ kg?¹)	133@025°C
Thermal conductivity(W m?¹ K?¹)	71.6@0-100°C
Coefficient of thermal expansion(x10?? K?¹)	9@0-100