

Scandium Powder

Formula: Sc

Percentage Purity: 99.9%

Maximum Particle Size: 250µm

Weight: 1g

CAS Number: 7440-20-2

UOM Code: 139-059-29

SKU: 1000042499-group

Product Code: SC00-PD-000110

Material Properties for Metals

Atomic Properties

Element	Value
Atomic number	21
Crystal structure	Hexagonal close packed
Electronic structure	Ar 3d ¹ 4s ²
Valences shown	3
Atomic weight(amu)	44.9559
Thermal neutron absorption cross-section(Barns)	25
Photo-electric work function(eV)	3.5
Atomic radius - Goldschmidt(nm)	0.16
Ionisation potential(No./eV)	3/ 24.8
Ionisation potential(No./eV)	5/ 91.7
Ionisation potential(No./eV)	4/ 73.5
Ionisation potential(No./eV)	6/ 111
Ionisation potential(No./eV)	1/ 6.54
Ionisation potential(No./eV)	2/ 12.8

Mechanical Properties

Element	Value
Hardness - Brinell	78
Hardness - Brinell	136
Material condition	Soft
Material condition	Hard

Element	Value
Poisson's ratio	0.27
Poisson's ratio	0.27
Bulk modulus(GPa)	44.2
Bulk modulus(GPa)	44.2
Tensile modulus(GPa)	79.3
Tensile modulus(GPa)	79.3

Electrical Properties

Element	Value
Electrical resistivity(μOhmcm)	66@20@20°C
Temperature coefficient(K^{-1})	0.00282@0-100°C

Physical Properties

Element	Value
Boiling point(C)	2831
Density(gcm^{-3})	2.99@20°C

Thermal Properties

Element	Value
Melting point(C)	1541
Latent heat of evaporation(J g^{-1})	7293
Latent heat of fusion(J g^{-1})	357
Specific heat($\text{J K}^{-1} \text{kg}^{-1}$)	557@25°C
Thermal conductivity($\text{W m}^{-1} \text{K}^{-1}$)	15.8@0-100°C
Coefficient of thermal expansion($\times 10^{-6} \text{K}^{-1}$)	12@0-100°C